POLITECNICO DI TORINO

Politecnico di Torino

Master's Degree in Engineering and Management

Foreign Direct Investment in Italy; the North-South divide

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November 2024

Abstract

This paper offers a comprehensive and comparative analysis of Foreign Direct Investments (FDI) as pursued by companies aiming to establish a sustained presence in international markets, with a specific focus on Italy. The primary objective is to examine the role of FDI and the diverse factors influencing the selection of specific Italian provinces as investment destinations, with particular emphasis on the disparities between Northern and Southern Italy. FDI serves as a fundamental strategy for achieving a long-term foothold in foreign markets. The decision on where to allocate investments within Italy is intricate and strategic, shaped by various economic, social, technological, and infrastructural factors.

This study delves into these considerations to elucidate the factors guiding foreign firms in their choice between Italy's North and South as FDI destinations. By employing a conditional logit model, the analysis incorporates critical variables, enabling an in-depth examination of the relative attractiveness of Italy's provinces. The paper begins by exploring essential concepts of FDI, highlighting their distinguishing features and reviewing pertinent literature. This foundation leads into a thorough analysis of Italy's socio-economic landscape, examining its historical, cultural, and economic diversity that underscores the distinct characteristics of its Northern and Southern provinces. This detailed contextualization helps illustrate why different parts of Italy attract varying levels of FDI.

The primary analytical tool, the Conditional Logit Model, supports the evaluation of regional factors influencing FDI allocation across Italy. Additionally, this research provides insights into the motivations behind regional investment preferences, presenting a comparative perspective on the strategic choices made by foreign companies in Italy's provinces.

Keywords: Foreign Direct Investment, Italy, North-South Divide, Conditional Logit Model

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Chapter 1

Foreign direct investment overview

Foreign Direct Investment (FDI) is defined in various ways by different organizations. However, this discussion will focus on the definitions provided by the IMF, UNCTAD, and the OECD, with the OECD's reference definition being the most widely accepted in academic literature.

According to the IMF's Balance of Payments Manual, FDI is defined as "an investment made to acquire a lasting interest in an enterprise operating in an economy other than that of the investor, with the purpose of having an effective voice in the management of the enterprise" (IMF, 1997). Similarly, UNCTAD defines FDI in its World Investment Report 2000 as "an investment involving a long-term relationship and reflecting a lasting interest and control by a resident entity in one economy (foreign direct investor or parent enterprise) in an enterprise resident in an economy other than that of the foreign direct investor (FDI enterprise, affiliate, or foreign affiliate)" (UNCTAD, 2000). The key terms in both definitions—long-term, control, and lasting interest—distinguish FDI from other types of investments, such as portfolio investments.

As previously noted, the most widely accepted definition of FDI is the reference definition provided by the OECD in 2008: "Foreign direct investment reflects the objective of establishing a lasting interest by a resident enterprise in one economy (the direct investor) in an enterprise (the direct investment enterprise) that is resident in an economy other than that of the direct investor. The lasting interest implies the existence of a long-term relationship between the direct investor and the direct investment enterprise and a significant degree of influence on the management of the enterprise. The direct or indirect ownership of 10% or more of the voting power of a resident enterprise in one economy by an investor resident in another economy is evidence of such a relationship" (OECD, 2008).

1.1 Multinational Enterprise

In this introductory section, we will provide readers with a brief introduction to the field of multinational corporations, explaining who they are, how they operate, and most importantly, why they invest in other countries.

An enterprise becomes a multinational when it decides to invest abroad, or in other words when it undertakes an FDI. Once it invests, then it is called a Multinational Enterprise (MNE). UNCTAD calls these types of organizations Transnational Corporations (TNCs) and define them as "incorporated or unincorporated enterprises comprising parent enterprises and their foreign affiliates. A parent enterprise is defined as an enterprise that controls assets of other entities in countries other than its home country, usually by owning a certain equity capital stake" (UNCTAD, 2011).

A variety of criteria have been established by the literature to determine the extent to which a business engages in transnational or multinational operations. Among these standards are:

1. The extent and kind of systemic benefits that come from its control and influence over a network of international economic activities.

2. The degree to which higher-value endeavors, including R&D, are globalized in order to represent the richness and caliber of overseas output as well as the part played by overseas affiliates in obtaining or producing new knowledge firsthand.

3. The degree to which overseas affiliates are given decision-making power in financial and marketing issues, as well as accountability for building and employing institutions and assets.

4. The number and size of overseas affiliates or affiliated businesses that it owns or controls.

5. The count of nations in which it owns or oversees operations with added value, including mining, plantations, factories, retail stores, banks, offices, and hotels.

6. The proportion of its overseas affiliates' global workforce, revenue, assets, or income.

7. The extent to which its ownership or management exhibits global reach.

The presence and actions of MNEs have important effects on a number of fronts, including the economic, social, political, cultural, and environmental ones, claim Goldstein and Piscitello (2007).

Multinational corporations (MNCs) and their foreign direct investments (FDI) represent a complex phenomenon that brings with it a series of advantages and disadvantages, which deserve in-depth analysis to fully understand their impact on host countries.

On the one hand, MNCs can be a powerful engine of economic growth. Their investments in infrastructure, production facilities, and technology have the potential to stimulate local economic development, contributing to increased GDP and strengthening a country's economic base. This process is often accompanied by the creation of new job opportunities, which not only reduces the unemployment rate but also improves the skills of the local workforce through the introduction of advanced technologies and innovative operating practices. Furthermore, the transfer of technology and managerial know-how from MNCs to local firms can accelerate industrial development and enhance a country's competitiveness in the global market.

Another significant benefit of FDI is the improvement of the trade balance. When MNCs choose to export goods produced locally, the host country can reduce its dependence on imports and strengthen its position in international markets. This dynamic contributes to increasing domestic competitiveness, stimulating domestic firms to improve the efficiency and quality of their products to keep pace with the standards set by MNCs. Often, the arrival of large global companies can act as a catalyst for the creation of industrial clusters and foster innovation.

However, the picture is not without its shadows. MNCs, in fact, can also exert a negative influence on local economies. One of the main risks is the exploitation of natural resources and labor. In some cases, MNCs may not reinvest adequately in the local community, while the working conditions offered may be precarious, with low wages and limited trade union rights. This dynamic can lead to resource depletion and a poor quality of life for local workers.

Another critical aspect is the economic dependence that can develop following foreign investments. If a local economy becomes too dependent on MNCs, it risks becoming vulnerable to strategic decisions made outside its borders. An example is the risk that MNCs may decide to move their operations to countries with lower costs, leaving behind unemployment and economic stagnation.

MNCs can also have a significant cultural impact. The introduction of foreign values, lifestyles, and business practices can erode local cultures, leading to progressive cultural homogenization and the loss of identity. This phenomenon is often accompanied by the spread of global brands that replace local traditions and products.

From an environmental standpoint, MNCs can contribute to pollution and environmental degradation, especially in developing countries where environmental regulations may be less stringent. Finally, MNCs may be involved in tax evasion or corruption practices, thus reducing tax revenues for local governments and

perpetuating dynamics of social and economic injustice. In conclusion, although MNCs and their foreign direct investments can offer significant opportunities for growth and development, it is essential to carefully consider the potential negative consequences. The overall effect of these investments depends largely on government policies, the ability to regulate the activities of MNCs, and the resilience of local economies.

1.2 Foreign Direct Investment and Globalization

Foreign Direct Investment (FDI) is intrinsically linked to the processes of globalization, acting as both a driver and a consequence of the increasing interconnectedness of the global economy. This dynamic is central to understanding how globalization reshapes economic landscapes, altering the distribution of wealth, resources, and industrial capacities across the world.

1.2.1 Foreign Direct Investment as Driver of Globalization

FDI has been a fundamental catalyst in the expansion of globalization. The liberalization of trade and investment policies in many countries, particularly since the late 20th century, has facilitated a substantial increase in FDI flows. This liberalization is often driven by the belief that FDI can bring numerous benefits, including technology transfer, job creation, and improved access to international markets. Scholars such as Dunning (1988) have emphasized the role of the "eclectic paradigm," which suggests that companies engage in FDI when they possess ownership advantages, location advantages, and internalization advantages. These factors collectively encourage firms to expand their operations internationally, thereby deepening global economic integration.

Moreover, according to Caves (1996), MNCs are instrumental in globalizing industries as they move capital, technology, and managerial expertise across borders, fostering interdependence among national economies.

1.2.2 Globalization as a Consequence of Foreign Direct Investments

Conversely, globalization itself has also accelerated FDI. The advancements in communication technologies, reduction in transportation costs, and the dismantling of trade barriers have created an environment conducive to cross-border investments. The global value chains (GVCs) concept, which highlights the interconnected nature of production processes spread across different countries, further underscores this relationship. Gereffi, Humphrey, and Sturgeon (2005) argue that GVCs are central

to understanding how globalization impacts industrial organization, as firms engage in FDI to optimize production by situating different stages of their value chains in various countries, depending on local advantages.

The integration of global financial markets is another significant factor. The increasing mobility of capital has allowed firms to more easily finance their overseas investments. This financial globalization, characterized by the liberalization of capital accounts and the growth of international financial institutions, has expanded the capacity for FDI, as discussed by Obstfeld and Taylor (2004). The result is a feedback loop where globalization facilitates FDI, which in turn propels further globalization.

1.3 Foreign Direct Investment Classification

1.3.1 Classification based on the motivation

As Narula and Dunning discuss, the motives for the MNEs to undertake FDI are four: resource seeking, market seeking, efficiency seeking, and strategic asset seeking. The first three motives aim at exploiting the assets of a foreign country, while the last one is to protect or enhance existing assets (Narula & Dunning, 1996).

- **Resource-seeking:** the investment is done to get resources (raw materials, WIP) which are not available in the home country or which maximize the value for money of purchases (higher quality at the same price or lower cost at the same quality). Even investments made with the purpose of getting benefits from low labor costs belong to this category.
- **Market-seeking:** the investment is done to sell the product even in the foreign market through foreign production facilities.
- **Efficiency-seeking:** the investment is done to increase efficiency through economies of scale and scope.
- **Asset-seeking:** the investment is done to increase competitiveness through the acquisition of new technology.

1.3.2 Classification based on the structure

A further distinction between FDI is between the so-called “horizontal” and “vertical” FDI. Horizontal investment occurs when the multinational “duplicates” the entire production system in the recipient country: direct production abroad replaces the flow of exports since the market is equally satisfied by the activity on site.

Vertical FDI occurs when the parent company acquires companies that carry out some phases of the entire production process that operate abroad. An example of horizontal FDI is that of the Italian-American car manufacturer FCA, which, with its factories near Moscow, produces cars for the Russian market. An example of vertical FDI is that of Renault, a French car manufacturer, which produces speedometers in Morocco. Horizontal FDI generally occurs in countries with a similar level of per capita income, while vertical FDI occurs in low-income and low-labor-cost countries.

1.3.3 Classification based on the direction

FDI can be categorized as either inward or outward:

- **Inward FDI:** This occurs when a foreign investor (a company or individual based outside the country) acquires a controlling interest in a domestic company. For example, a Japanese car manufacturer setting up a factory in the United States.
- **Outward FDI:** This happens when a domestic investor (a company or individual based within the country) acquires a controlling interest in a foreign company. For example, an Italian fashion brand opening a retail store in China.

1.3.4 Classification based on the method

Foreign direct investment (FDI) can take two main forms: greenfield investment and brownfield investment.

When we talk about a "Greenfield" project, we're referring to a situation where you start building on a completely new piece of land, never before used for industrial or commercial purposes. Imagine, for example, a green field or an undeveloped agricultural area: in this case, the entire project can be developed from scratch, without having to take into account pre-existing infrastructure or buildings. This approach offers maximum creative and design freedom, but often involves high costs for the construction of basic infrastructure, such as roads, water, and electricity networks.

On the other hand, a "Brownfield" project takes place on a site that has already been previously used, perhaps for industrial or commercial purposes, and which may currently be abandoned or underutilized. These sites, before they can be reused, often require remediation or renovation work. The main advantage of a Brownfield project is that it intervenes in an already developed area, which can reduce the environmental impact and promote the recovery of otherwise degraded areas. However, this type of project often has to adapt to existing infrastructure,

which can limit design flexibility and incur additional costs for necessary remediation or renovations.

In summary, the fundamental difference between Greenfield and Brownfield concerns the state of the site on which you intervene: Greenfield starts from undeveloped land, allowing for a wide range of design freedom but requiring a greater expenditure on basic infrastructure, while Brownfield involves the reuse of an already developed area, often requiring adaptations and remediation, but contributing to the redevelopment of existing areas. Both approaches have advantages and disadvantages, which depend on the specific context and the project objectives.

1.4 Determinants of Foreign Direct Investment

Before analyzing the empirical evidence on the impact of remittances on the source country, it is crucial to develop a conceptual framework that identifies the key drivers of remittance behavior. Comprehending these characteristics is crucial for governments seeking to attract foreign direct investment, businesses seeking to expand internationally, and scholars attempting to decipher the intricate web of international investment dynamics. These variables include cultural considerations, market conditions, and economic data in addition to policy frameworks.

1.4.1 Economies of scale

For instance, economies of scale represent a positive factor in determining both horizontal and vertical foreign direct investment. Firms with high levels of economies of scale are generally larger and, as some studies have found (e.g., Brainard 1997, as reported by G.B. Navaretti and A. Venables), more efficient. When domestic firms become sufficiently efficient, they first become exporters and then multinational enterprises (as some research has demonstrated). Large economies of scale indeed reduce the cost of disaggregation.

1.4.2 Transportation costs and tariff barriers

Transportation costs and tariff barriers play a pivotal role in shaping Foreign Direct Investment (FDI) decisions by multinational enterprises (MNEs). High transportation costs can diminish the attractiveness of a country as an investment destination by eroding profit margins and increasing operational complexities (Markusen & Venables, 2000). Similarly, stringent tariff barriers elevate the cost of importing inputs and exporting outputs, thereby discouraging FDI aimed at serving both domestic and international markets (Blonigen & Piger, 2014). In Italy, the disparity between the industrialized North and the less developed South (Mezzogiorno) exemplifies this dynamic.

The North benefits from superior infrastructure and lower transportation costs, attracting a larger share of FDI (Iammarino & Santangelo, 2000). Conversely, the South's inadequate infrastructure and higher transportation expenses deter foreign investors (Basile & Benfratello, 2008). Empirical studies suggest that enhancing infrastructure and reducing trade barriers in the South could significantly increase its appeal to foreign investors, promoting regional economic convergence within Italy.

1.4.3 Market size, demographics and growth potential

Market size, demographics, and growth potential are critical factors that significantly influence Foreign Direct Investment (FDI) decisions. A larger market size often signals greater demand for goods and services, making it an attractive destination for foreign investors seeking to expand their operations and capture new customers. Demographics, including population size, age distribution, and income levels, further refine the attractiveness of a market by indicating the potential consumer base and labor availability. For instance, a young and growing population can represent a long-term opportunity for businesses in sectors like technology and consumer goods, while an affluent population might attract investments in luxury goods and services; in general, foreign investors are drawn to populations with a reasonable age distribution (International Symposium on Sustainable Development, 2009). Remarkably, Resmini's 2000 study on industrial foreign direct investment identified a distinct pattern. More populated countries in Central and Eastern Europe have been found to attract more foreign direct investment. Similar results were seen by Beckan and Estrin (2000), highlighting the tendency for transition economies with larger economies to be more appealing to foreign investors.

Growth potential is equally crucial as it reflects the expected future expansion of the market. Investors are drawn to markets with strong economic prospects and stability, as these conditions suggest a favorable environment for sustained profitability. Countries with rapidly developing economies or those undergoing significant reforms may offer higher returns on investment due to their untapped potential and evolving market needs. Together, these factors form a comprehensive picture of a country's investment appeal, guiding multinational corporations in their strategic decision-making for FDI.

1.4.4 Local industrial systems

Next, we examine how Local Industrial Systems (LIS) influence the investment decisions of multinational enterprises (MNEs) in specific regions. In recent years, academic literature has increasingly focused on the concept of agglomeration economies, which arise from the geographic concentration of a large number of

firms specializing in related sectors. However, LIS represents a more intricate form of agglomeration, characterized by the interaction between local firms and institutions.

Local Industrial Systems (LIS): LIS provides a more flexible and complex production coordination system compared to other forms of agglomeration, leading to superior performance in terms of production efficiency and learning processes. These systems are described as a "nexus of untraded interdependencies," illustrating how competitive regions develop successful production models that are difficult to replicate or transfer elsewhere.

Marshallian Industrial Districts (MID): A specific type of LIS, Marshallian Industrial Districts (MID), offer additional competitive advantages, such as production flexibility and collective learning. These districts are distinguished by a high degree of specialization and complementarity among firms, fostering dynamic processes of knowledge creation and transfer.

The situation in Italy provides a compelling case study to understand the impact of LIS and MID on FDI. Italy is renowned for its industrial districts, particularly in the northern regions, where districts such as those in Emilia-Romagna (e.g., the packaging machinery district in Bologna) and Veneto (e.g., the eyewear district in Belluno) have attracted significant foreign investment due to their specialization, skilled workforce, and innovation capabilities. These districts have developed strong international linkages and are often at the forefront of global industrial trends, making them attractive locations for foreign firms seeking to tap into these specialized markets. In contrast, the southern regions of Italy, which have fewer and less developed industrial districts, tend to attract less FDI. The disparity between the North and the South in terms of industrial development and the presence of LIS and MID is a significant factor contributing to the uneven distribution of FDI in the country. Studies have shown that the concentration of industrial clusters in the North is one of the main drivers of the region's economic dynamism and its ability to attract foreign investment, while the relative absence of such clusters in the South has hindered its economic development and attractiveness for foreign investors (Iammarino and McCann, 2013; Cainelli and Iacobucci, 2012).

Furthermore, research by Buciuni and Pisano (2021) highlights how the integration of firms in these clusters, combined with strong social capital and trust among local actors, further enhances the region's attractiveness for FDI. Foreign investors are attracted by the synergies and efficiencies that arise from these tightly interconnected industrial ecosystems, which can significantly reduce transaction costs and facilitate more effective collaboration between foreign and local firms. Therefore, policy makers aiming to attract FDI should consider the development and support of local industrial systems and clusters as a key strategy to enhance their region's global competitiveness.

1.4.5 Tax policies

Tax policies play a critical role in influencing Foreign Direct Investment (FDI) flows. Countries with favorable tax regimes, such as lower corporate tax rates, tax incentives, and treaties that prevent double taxation, tend to attract more FDI. For instance, a study by De Mooij and Ederveen (2003) found that a 1% reduction in corporate tax rates could lead to a 3.3% increase in FDI inflows. These policies reduce the cost of doing business for foreign investors, thereby enhancing the profitability of investments. Conversely, high tax rates and complex tax structures can deter FDI by increasing operational costs and creating uncertainties.

Moreover, specific tax incentives, such as tax holidays, exemptions on import duties, and favorable depreciation rules, can significantly enhance a country's appeal to foreign investors. The OECD reports that countries offering targeted tax incentives see a 5-10% higher FDI inflow compared to those that do not. These incentives lower the initial cost barriers for entry and increase the overall return on investment, making the country more competitive on a global scale.

However, while attractive tax policies can drive FDI, they must be balanced with other factors such as political stability, infrastructure quality, and labor market conditions. Excessive reliance on tax incentives can sometimes lead to a "race to the bottom," where countries continuously lower taxes, potentially undermining their revenue base without guaranteeing long-term economic benefits. For example, the World Bank notes that aggressive tax competition has resulted in some developing countries losing up to 1.5% of GDP in foregone tax revenue. Hence, effective tax policies should aim to create a stable and predictable tax environment that encourages sustainable investment while ensuring that the country's fiscal needs are met.

1.4.6 Exchange rates

For what concerns exchange rates, a depreciation of the host country's currency can make assets in that country cheaper for foreign investors, potentially increasing FDI inflows. Conversely, an appreciation of the host country's currency may deter investment due to higher costs. Empirical studies support this relationship, showing that exchange rate volatility often leads to uncertainty, which can deter FDI as firms may be reluctant to commit to long-term investments in an unpredictable financial environment.

For instance, research by Cushman (1985) suggests that exchange rate expectations significantly affect FDI flows, with a weaker local currency encouraging inbound investments by lowering the acquisition cost of local assets. Furthermore, Froot and Stein (1991) found that a weaker currency in the host country can enhance the purchasing power of foreign investors, particularly those from countries with stronger currencies, thereby increasing the attractiveness of the host country as

an FDI destination. However, excessive volatility can lead to a risk premium, where the uncertainty surrounding future exchange rates necessitates higher expected returns to justify the investment, potentially dampening FDI flows.

In conclusion, while a favorable exchange rate can enhance FDI attractiveness by reducing the cost of entry, exchange rate stability is equally important to mitigate the risks associated with currency fluctuations.

1.4.7 Political stability

Political stability plays a crucial role in influencing Foreign Direct Investment (FDI) flows into a country. Stable political environments are typically associated with predictable economic policies, robust legal frameworks, and low levels of corruption, all of which create a conducive atmosphere for foreign investors. According to a study by Globerman and Shapiro (2003), political stability significantly reduces the risks associated with investment, thereby attracting higher levels of FDI. In contrast, political instability, characterized by frequent government changes, social unrest, or policy unpredictability, increases the perceived risks, deterring potential investors. This is supported by empirical data showing that countries with lower political risk indices, such as Singapore or Switzerland, consistently attract higher FDI inflows compared to politically unstable regions like parts of Sub-Saharan Africa (UNCTAD, 2022).

Additionally, Busse and Hefeker (2007) found that a one-unit increase in political stability can lead to a 1.5% increase in FDI inflows. Therefore, maintaining a stable political climate is essential for countries aiming to attract and sustain foreign investments, as it assures investors of the security and profitability of their ventures.

1.4.8 Banking system

Another key determinant is the presence of a stable banking system in the FDI receiving country, which provides a safe environment for foreign investors by ensuring the availability of financial resources, efficient transaction processing, and sound risk management practices. Stability in the banking sector reduces the likelihood of financial crises, which can severely impact investor confidence and lead to capital flight. Empirical studies have shown that countries with well-capitalized and efficiently regulated banks tend to attract more FDI. For example, an International Monetary Fund (IMF) study found that a one standard deviation increase in banking sector stability is associated with a 15-20% increase in FDI inflows.

In the context of Italy, banking sector stability has been a critical factor in influencing FDI. The Italian banking system has faced challenges, particularly in the wake of the 2012 European debt crisis, which led to a decline in investor

confidence. However, recent reforms and consolidation of the banking sector have improved its stability, gradually restoring investor confidence. Bank of Italy data indicate that FDI inflows have been positively correlated with improvements in banking sector stability, particularly following the introduction of measures to reduce non-performing loans and increase transparency.

1.4.9 Workforce

European Union countries (and therefore also Italy) are often chosen as FDI destination countries due to the presence of a skilled workforce. An educated and technically skilled workforce increases productivity, promotes innovation, and reduces training costs for multinationals. Empirical studies support this relationship, showing that countries with higher levels of human capital tend to receive more FDI. For example, research conducted by the University of Oxford highlights that a 1% increase in the skill level of a workforce can lead to a 0.5% increase in FDI inflows. In the Italian context, the disparity between the skilled workforce in the North and the South significantly influences the distribution of FDI. Northern regions, known for their higher educational standards and specialized industrial sectors, attract the majority of FDI, contributing to their robust economic growth. In contrast, Southern regions suffer from lower levels of education and training, which leads to a reduction in FDI inflows. A study by the Bank of Italy found that the North receives nearly 80% of the country's "highly specialized" FDI, largely due to its better-trained workforce.

While a skilled workforce is a significant factor in attracting FDI, studies also show that the availability of low-wage labor can attract certain types of foreign investment, particularly in labor-intensive sectors. For example, World Bank research indicates that countries with lower labor costs often attract FDI in sectors such as manufacturing and textiles, where cost efficiency is key. Companies seeking to minimize production costs may prefer locations with cheaper labor, even if the workforce is less skilled.

However, the type of FDI attracted by low-wage labor often differs in quality and impact from that attracted by a skilled workforce. Low-wage-driven FDI tends to focus on basic manufacturing and assembly operations, which may bring short-term economic benefits but often fail to contribute significantly to long-term economic development. In contrast, FDI attracted by a skilled workforce typically involves higher-value sectors such as technology, pharmaceuticals, and finance, leading to greater economic growth and innovation.

In the Italian context, the North's ability to attract high-quality FDI thanks to its skilled workforce has led to more sustainable economic growth than the South, which, despite lower wages, struggles to attract significant investment. Studies from Bocconi University suggest that while lower wages may attract some FDI,

the benefits are often limited and less transformative than investments driven by a skilled workforce.

1.4.10 OLI paradigm

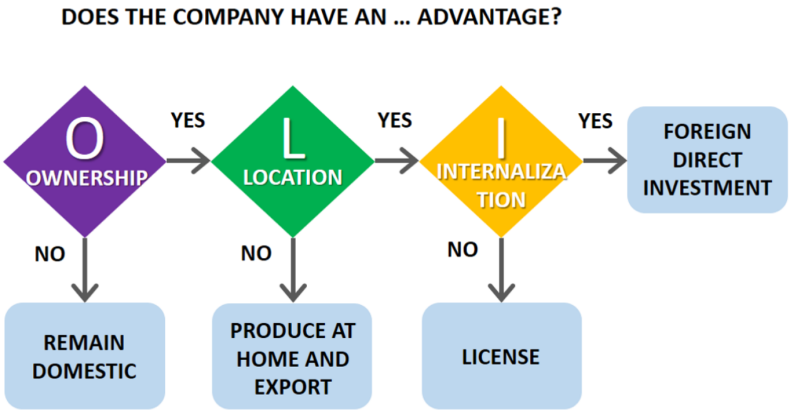

Figure 1.1: OLI paradigm (Business-to-You)

To help us on the theoretical aspect, we now introduce the OLI paradigm; developed by John Dunning, which allows us to summarize, analyze and explain the determinants of foreign direct investment (FDI) by multinational enterprises (MNEs). It is an acronym for Ownership, Location and Internalization advantages, which together shape a firm's decision to engage in FDI.

Ownership advantages refer to unique resources or capabilities, such as technology, patents or brand reputation, that give a firm a competitive advantage in foreign markets. Location advantages consider the specific advantages of operating in a given country, including access to resources, labor costs and market potential. Internalization advantages imply the firm's choice to internalize operations rather than license or outsource, to better control its proprietary knowledge and reduce transaction costs.

Dunning's OLI paradigm has been widely validated by empirical studies. For example, research from the University of Reading finds that firms with strong ownership advantages are more likely to invest abroad to leverage their competitive resources. Studies in the Journal of International Business Studies show that location advantages significantly influence FDI flows, particularly in emerging markets with favorable regulatory environments. Furthermore, scholars have shown that internalization is preferred when transaction costs are high, consistent with Dunning's theory.

Consequently, the OLI paradigm states that a corporation's potential to interact in price-delivered operations overseas is depending on the fulfillment of 4 requirements:

- The extent to which a company holds a sustainable competitive advantage in ownership-specific (O) advantages, compared to firms of other nationalities, in meeting the demands of foreign markets;

- Upon the fulfillment of the initial condition, attention can then be directed towards evaluating the extent to which the firm deems it more advantageous to augment its ownership-specific advantages instead of selling them or licensing their use. When such an advantage exists, it is termed as market internalization (I) advantages.

- When both preceding conditions are fulfilled, the evaluation can proceed to assess the degree to which the firm advances its global objectives through overseas operations, leveraging its ownership-specific advantages. The location-specific advantages refer to aspects within the host country that render it an appealing destination for establishing production facilities.

- Considering the Ownership, Location, and Internalization advantages pertinent to a firm, the final crucial factor in determining the extent of value-added activities undertaken abroad is the company's confidence in the alignment of its strategy and stakeholder objectives with foreign production (Dunning & Lundan, 2008).

Dunning's OLI (Ownership, Location, and Internalization) framework (1981) posits that a firm's preference for Foreign Direct Investment (FDI) over alternatives such as exporting or licensing depends on the simultaneous presence of three types of advantages. Specifically, FDI is selected over exporting when both Ownership ("O") and Internalization ("I") advantages are present but Location ("L") advantages are either absent or insufficiently compelling to invest in physical proximity. When only "O" advantages are present, however, licensing to a local firm may prove the more strategic choice, as the firm lacks the "L" and "I" advantages needed to justify direct entry.

The "L" component of the OLI paradigm addresses the relevance of locational advantages, emphasizing that natural and constructed assets within the host nation ultimately guide FDI location decisions. Dunning (1981) argues that a firm's selection of a host country depends on the ability to leverage its "ownership advantages" (e.g., technology, patents, and management know-how) in ways that maximize the firm's specific assets and competitive edge. Thus, the choice of location is contingent upon the relative appeal of potential host nations in attracting FDI,

where strategic corporate choices intersect with the unique characteristics of the host country's economic and institutional environment (Dunning, 2001).

Expanding on this foundation, Dunning (1988) introduced the ESP (Environment, Systems, Policies) paradigm to systematically classify factors for comparative analysis across host nations. This model divides determinants into three categories: "Environment" (including market size, distribution networks, transportation costs, and quality of production inputs), "Systems" (encompassing political, social, and cultural dimensions), and "Policies" (referring to the regulatory and legislative framework of the host country). The ESP framework provides a more granular understanding of how varying national contexts influence FDI decisions, emphasizing the role of infrastructure, institutional stability, and policy alignment as critical factors that either facilitate or deter foreign investment inflows.

Complementing Dunning's work, Krugman's "new economic geography" (1991) further explores FDI determinants through the lens of spatial economics. Krugman identifies "centripetal forces"—factors like agglomeration economies and customer proximity—that drive the concentration of economic activities, and "centrifugal forces"—such as increased costs and competition—that incentivize geographic dispersion of firms. This model suggests that multinational enterprises (MNEs) are more likely to engage in horizontal FDI when the benefits of being near customers and suppliers outweigh the gains from centralizing operations. Krugman's theory highlights the importance of local market potential and economic clustering as key variables in MNEs' location strategies (Fujita & Thisse, 2002).

Empirical studies validate the significance of these theoretical models. For instance, Blonigen and Piger (2011) found that market size and infrastructure quality are robust determinants of FDI location, consistent with Dunning's and Krugman's frameworks. Additionally, the role of institutional quality, including political stability and regulatory transparency, is underscored by studies that link these factors to heightened FDI attractiveness (Globerman & Shapiro, 2002). These studies reinforce the notion that FDI location decisions are multi-faceted, shaped by a combination of firm-specific strategic priorities and host-country conditions.

In summary, Dunning's OLI and ESP frameworks, complemented by Krugman's geographical economic theory, collectively provide a comprehensive understanding of FDI location determinants. Together, they underscore the critical interplay between firm-internal factors, host-country advantages, and broader geographical considerations, illustrating how FDI location is a strategic decision informed by both micro- and macroeconomic factors.

1.5 Effects of Foreign Direct Investment

The presence of foreign investments can function as a positive push for the host country or a negative influence, depending on the case. The first occurs when the increased competition caused by the presence of multinationals reduces the inefficiency of local firms that struggle to maintain their competitive advantage, or when the new entry generates positive spillovers, in terms of new technology or knowledge that allows the circulation of information flows between firms. On the contrary, if the establishment of foreign investors has the sole effect of making local shares disappear, the local productive fabric may suffer from their presence (Navaretti and Venables, 2006).

To reach an objective assessment of the impact that multinationals have on the host country, one should ask what would have happened if those foreign firms had not entered the market. Do the beneficial effects outweigh the negative ones?

1.5.1 Effects of FDI on Host Countries

Economic Growth and Development

FDI is a significant driver of economic growth in host countries, primarily through the injection of capital, enhancement of productivity, and stimulation of economic activities. The seminal work by Borensztein, De Gregorio, and Lee (1998) established that FDI contributes to economic growth by facilitating technology transfer, which is particularly effective in countries with a sufficient level of human capital. This finding underscores the importance of a skilled workforce in maximizing the benefits of FDI.

In Italy, the economic impact of FDI has been unevenly distributed between the North and South. The Northern regions, characterized by advanced infrastructure, a skilled labor force, and proximity to major European markets, have attracted substantial FDI. This has led to increased industrial output, innovation, and higher GDP growth rates compared to the South; according to Ascani, Crescenzi, and Iammarino (2012) in the long term, this has been one of the reasons for the increase in territorial disparity that has exploded since 1999.

A rare case of successful FDI in Southern Italy is the entry of Jindal Films, an Indian company specializing in the production of plastic films, into the city of Brindisi, in Puglia. In 2018, Jindal Films acquired a plastics manufacturing plant from Treofan Italy, investing approximately €30 million to modernize the plant and increase production capacity. This investment revived an industrial area that was in decline, significantly contributing to the local economy and strengthening the company's presence in the European market.

From a capital perspective, MNEs facilitate the free flow of capital by investing in long-term projects, often having access to financial resources unavailable to domestic

firms (Kastrati, 2013). This influx of capital can be particularly transformative in developing economies, where it fuels economic growth and modernization.

Economic theory posits that competition among producers is essential for the efficient functioning of markets. The entry of new players into the market via greenfield FDI—which involves establishing new enterprises—can enhance competition, leading to lower prices and improved consumer welfare (Hill, 2007).

However, concerns arise regarding the economic influence of foreign subsidiaries in host countries, particularly in markets with few domestic firms. MNEs could engage in monopolistic practices, potentially harming the economic health of the host nation (Lipsey, 2002). Effective competition authorities are crucial to prevent foreign firms from dominating local markets and ensure that the benefits of increased competition are fully realized (Hill, 2007).

With the entry of MNEs, the host country's capital stock increases leading to an increase in the productive capacity. But it can also lead to negative consequences for host countries, particularly when it exacerbates economic vulnerabilities. One significant issue is the potential for economic dependency on foreign capital. Alfaro et al. (2004) argue that excessive reliance on FDI can make host countries vulnerable to external shocks, such as sudden withdrawals of investment or economic downturns in the home countries, which can lead to economic instability.

In the Italian context, this is particularly concerning in the South, where FDI is less diversified and often concentrated in specific sectors like tourism and agriculture (Ascani, Crescenzi, & Iammarino, 2016). Additionally, dependency on foreign investors may limit the development of domestic industries, preventing the region from achieving sustainable economic growth.

An alarming example comes from Naples, where Whirlpool, a leading US multinational in the household appliances sector, acquired the Italian Indesit in 2014, which owned a production plant a few dozen kilometers from the city; with the acquisition, Whirlpool initially promised to maintain and develop production activities in Italy, but in 2019 it announced the permanent closure of the plant; this decision was devastating for the local economy, leaving hundreds of workers without a job and putting the entire regional production chain, which was strongly linked to the plant's activity, in crisis.

Employment and Labor Market Dynamics

FDI often leads to job creation in host countries, particularly in sectors where foreign firms establish new operations or expand existing ones. Research by Javorcik (2004) highlights that FDI not only creates direct employment opportunities but also induces job creation indirectly through supply chains and increased local demand. However, the quality and sustainability of these jobs are influenced by the sectoral focus of the investment.

Direct employment occurs when MNEs hire local workers, while indirect employment results from increased economic activity in local supplier firms or higher

local spending by MNE employees. Research indicates that for every direct job created by FDI, an additional 1.6 jobs are generated indirectly through production linkages with local industries (Kastrati, 2013). This multiplier effect highlights the broader economic benefits that FDI can bring to the host country's labor market (Blomström & Kokko, 1998).

The impact of MNEs on wage levels in host countries is complex. One critical question is whether MNEs pay higher wages than domestic firms, and if so, whether these higher wages translate into broader wage increases across the economy. Studies suggest that while MNEs often offer higher wages, this may not necessarily lead to overall wage growth in the host country. Factors such as the selection of highly skilled labor or prime locations might explain the wage differentials (Görg & Greenaway, 2004).

In Italy, the North has benefited from FDI through the creation of high-skilled jobs, especially in industries such as automotive, machinery, and high-tech manufacturing. This has contributed to relatively low unemployment rates and higher average wages in these regions (Iammarino & Marinelli, 2011). In contrast, the South, where FDI is concentrated in low value-added sectors, has seen the creation of predominantly low-wage and low-skilled jobs. This has perpetuated a cycle of low productivity and high unemployment (Capello & Caragliu, 2018).

In this sense, a virtuous example can be considered the investment of Philip Morris International, one of the largest tobacco companies globally, in Bologna in 2016. The investment exceeded 500 million euros and led to the creation of approximately 600 direct jobs and many more in related industries.

Thanks to the high level of specialization required for technical and managerial positions, the salaries offered by Philip Morris were significantly higher than the local average. This raised the level of remuneration not only for the company's direct employees, but also for those of local companies that collaborate with Philip Morris in the sectors of logistics, machinery maintenance, and high-tech plant design, creating a domino effect on the economy of the province of Bologna.

Technology Transfer and Innovation

One of the most significant advantages of FDI for host countries is the transfer of technology and managerial expertise. Multinational corporations (MNCs) typically bring advanced technologies and innovative practices to the host country. Keller (2010) argues that such spillovers are crucial for the long-term competitiveness of host economies, particularly in developing regions. Research shows that FDI-induced technology transfer can lead to productivity gains and enhance overall industrial competitiveness (Borensztein, 1998).

Moreover, FDI facilitates the transfer of knowledge, skills, and managerial techniques, which benefit the host nation by broadening the knowledge base, enhancing managerial capabilities, and fostering the development of local enterprises (Kastrati, 2013). Multinational firms often provide high-quality training to local

employees, which not only increases their skill levels but also has a spillover effect, raising the overall competence of the domestic labor market (Meyer & Sinani, 2009).

In Italy, the North has significantly benefitted from technology transfer associated with FDI, particularly in regions like Lombardy and Piedmont, where foreign-owned firms have integrated into local industrial clusters. These clusters have become hubs of innovation, driving regional economic growth and reinforcing the North's position as Italy's economic powerhouse (Crescenzi, Gagliardi, & Iammarino, 2015). In contrast, the South has seen limited benefits from technology transfer due to the smaller scale of FDI and the concentration of investments in low-tech industries. This has limited the South's ability to upgrade its industrial base and improve productivity levels.

1.5.2 Effects of FDI on Home Countries

Capital Outflows and Economic Consequences

For the home country, FDI often results in capital outflows as firms invest abroad. The capital transfer can manifest in two distinct ways, each with different implications for the home country. First, the investment may lead to a decrease in domestic production in the home country, a phenomenon known as "investment with capital divestment." In this scenario, the firm may close down or sell off domestic facilities while establishing new ones abroad to serve the same domestic market. Alternatively, the firm may choose to invest directly in Country B while maintaining its physical capital stock and output levels in the home nation.

Italian firms, particularly those in the North, have been active investors abroad, with significant FDI outflows directed towards Eastern Europe, North Africa, and emerging markets in Asia. These investments have enabled Italian companies to expand their global presence, access new markets, and reduce production costs. However, there are concerns about the potential deindustrialization of Italy, particularly in traditional manufacturing sectors where outward FDI has led to the relocation of production facilities, resulting in job losses and a decline in domestic industrial capacity (Baldwin & Okubo, 2019).

Reverse Technology Transfer

Reverse technology transfer, where innovations developed abroad are brought back to the home country, is another potential benefit of FDI. This phenomenon occurs when MNCs adopt new processes, products, or technologies developed in their foreign subsidiaries and integrate them into their operations at home (Branstetter, 2006).

For Italy, this risk is particularly relevant in high-tech industries where Italian firms have significant foreign operations. The North, with its more developed industrial base, might experience a shift in innovation efforts towards foreign markets,

potentially weakening domestic research and development (R&D) capabilities over time (Ascani, Crescenzi, & Iammarino, 2016).

Employment and Wage Dynamics

The impact of FDI on employment and wages in the home country is complex and context-dependent. While there are concerns that outward FDI may lead to job losses as firms relocate production abroad, research by Harrison and McMillan (2011) suggests that the overall impact on employment can be neutral or even positive if firms expand their operations globally and become more competitive. However, the effect on wages can vary, with potential wage compression for lower-skilled workers and wage increases for higher-skilled workers involved in managing international operations.

In Italy, outward FDI has contributed to job reallocation across sectors, with some industries experiencing job losses while others have expanded. In the North, where firms are more integrated into global value chains, outward FDI has led to the creation of high-skilled, high-wage jobs, particularly in sectors that require coordination of complex international operations. In contrast, the South has experienced more negative employment effects due to the relocation of labor-intensive production activities to lower-cost countries, contributing to persistently high unemployment rates and wage stagnation (Amighini, Rabellotti, & Sanfilippo, 2010).

Chapter 2

FDI Trends

This chapter delves into the intricate patterns of foreign direct investment (FDI) across the globe, offering a comprehensive exploration of the shifting dynamics that have shaped the flow of international capital over recent decades. The aim is to provide a clear understanding of global FDI trends, shedding light on the factors driving these investments and their broader economic implications. Beyond a macro-level analysis, this chapter examines the regional and subregional distributions of FDI, uncovering the disparities in capital inflows among continents and nations. By dissecting these variations, the chapter aims to reveal the key drivers behind FDI growth in specific regions, offering valuable insights into how global investment landscapes have evolved and continue to transform.

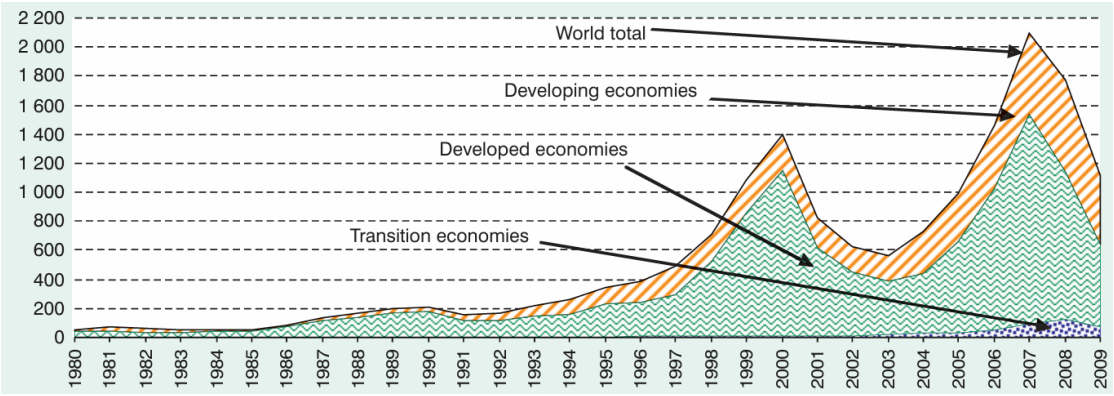

Figure 2.1: FDI inflows, globally and by groups of economies, 1980–2009 (UNCTAD)

2.1 Overview

The role of foreign direct investment (FDI) as a key driver of economic activity has grown substantially over the last decade. Between 2000 and 2016, the proportion of FDI stock relative to global GDP increased from 22% to 35%. Following a downturn during the Great Recession, mergers and acquisitions (M&A)—the most dynamic component of FDI—rebounded, reaching an unprecedented USD 1.2 trillion in the first quarter of 2018. The rise in FDI exerts significant impacts on both the originating countries and the host nations where investments are made. Moreover, as outlined in the preceding chapter, the expansion of multinational enterprises (MNEs) has fostered the development of intricate cross-border production networks, with far-reaching consequences. Since the 2000s, the global FDI landscape has experienced a shift, with emerging market economies (EMEs) playing an increasingly prominent role as both sources and destinations of investment. EMEs have captured a growing share of FDI inflows, surpassing 50% of the global total by 2013. In 2016, M&A deals valued over USD 1 billion accounted for only 1% of all FDI projects, yet they contributed 55% of total FDI inflows. Since 2008, European Union (EU) countries are no longer the top investors and recipients of FDI worldwide, though various econometric studies by Eurostat confirm that EU membership significantly boosts FDI inflows to member states. Historically, advanced economies have dominated FDI activity, both as investors and recipients. Prior to the Great Recession, nearly 90% of outward FDI (OFDI) originated from developed nations, with the EU contributing almost half of the global OFDI. Meanwhile, the EU and other advanced economies attracted between 60% and 70% of total inward FDI (IFDI). However, since 2008, the global FDI landscape has undergone a significant transformation. Emerging market economies have become increasingly important players, both as sources and destinations of FDI. By 2014, EMEs accounted for 41% of global OFDI and 56% of global IFDI, while the EU's share had declined to just 15% of OFDI and 18% of IFDI, largely concentrated in the services sector, which alone represents 70% of IFDI in EU member states.

2.2 Europe

Between 2003 and 2008, Europe experienced substantial Foreign Direct Investment (FDI) flows, driven by the consolidation of the European single market and increasing economic integration within the European Union. During this period, FDI inflows exceeded $1.5 trillion, with Western European countries such as the United Kingdom, France, and Germany attracting the majority of investments, particularly in the financial, technological, and manufacturing sectors (Eurostat, 2008; OECD, 2008). However, the 2008 global financial crisis marked a turning

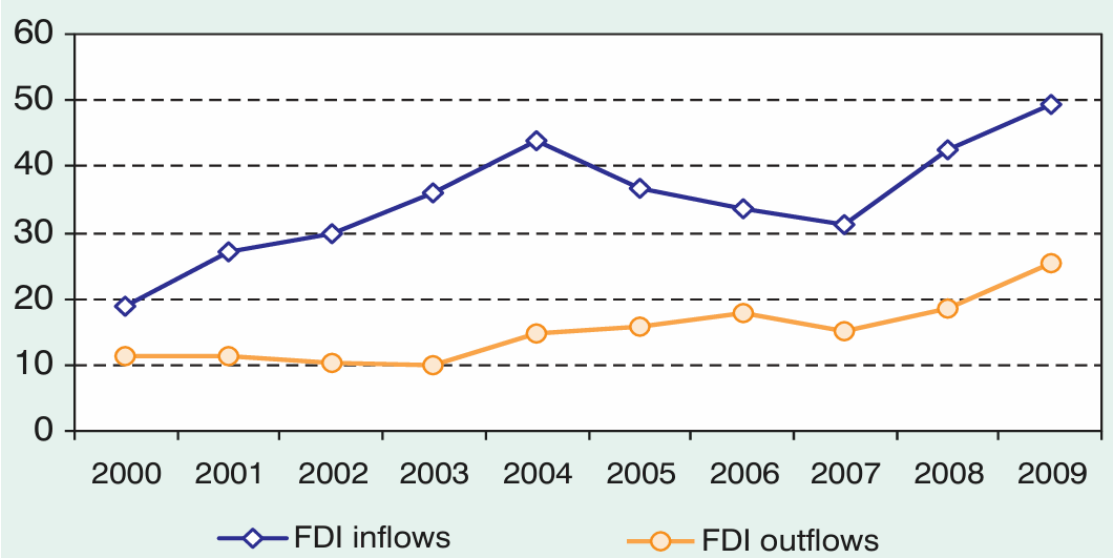

Figure 2.2: Shares of developing and transition economies in global FDI inflows and outflows, 2000–2009 (UNCTAD)

point for FDI flows into Europe. Initially, investment inflows contracted sharply, followed by a gradual recovery over the following decade, during which total inflows reached approximately $2.2 trillion (Eurostat, 2018). In the post-crisis period, FDI increasingly shifted towards emerging sectors such as renewable energy and technological innovation, supporting Europe's transition towards a more sustainable and digital economy (OECD, 2019).

2.2.1 United Kingdom

In the early 2000s, the United Kingdom emerged as a magnet for FDI, particularly in the finance and technology sectors, due to its strong regulatory environment and London's global status. Beyond finance, significant investments flowed into the technology sector, with companies like Google and Microsoft expanding their presence. Additionally, the UK's creative industries, including media and advertising, also attracted foreign capital. For instance, the expansion of Pinewood Studios drew investments into the UK's film industry, further diversifying its FDI profile (OECD, 2008).

The 2008 financial crisis dampened the UK's inflows, with a notable contraction by 2009. However, despite this sharp decline, the UK's rebound was significant, with inflows recovering to $181 billion by 2018 (Eurostat, 2018). This resurgence was bolstered by ongoing strength in financial services and diversification into emerging sectors like renewable energy and pharmaceuticals; one of the most

prominent examples was Pfizer, the U.S. pharmaceutical giant, which expanded its UK operations, particularly in the research and development of biopharmaceuticals. The looming uncertainty of Brexit, however, began casting doubts towards the latter part of the decade, impacting long-term investment confidence (OECD, 2019). Yet, London's centrality in the global finance sector helped to mitigate potential fallout.

2.2.2 France

France, in the same period, saw substantial foreign interest due to its dominant industrial base and strategic position within Europe. By 2007, inflows had reached $158 billion (OECD, 2008), reflecting its strong appeal, particularly in sectors such as aerospace, automotive, and energy. Unlike the UK's focus on financial services, France's strengths lay in manufacturing and high-tech industries. Investors were attracted by the country's advanced infrastructure and the high quality of its workforce, though these advantages were tempered by concerns over the rigidity of its labor laws and tax regime (UNCTAD, 2008).

It is extremely interesting to note how Boeing, the American aerospace giant, has strengthened its presence in France by partnering with local suppliers for its European production needs, essentially exploiting the network of supply chain companies built by the other giant of the skies: Airbus.

France's path to recovery after the financial downturn was more gradual, with FDI inflows remaining modest in the years following the crisis, stabilizing at $45 billion annually by 2013. However, by 2018, inflows began to regain momentum, reaching $64 billion, driven by France's expanding focus on innovation, particularly in technology and pharmaceuticals (Eurostat, 2018). Google, for example, opened a major AI research center in Paris in 2018, confirming France as the European hub for the technological development of AI, thanks above all to the policies undertaken by Parisian universities, which have repeatedly funded research centers co-managed with local start-ups. Policy reforms aimed at increasing market flexibility played a pivotal role, helping France transition from traditional manufacturing to becoming a leader in future-oriented sectors (OECD, 2019). Despite these gains, France's recovery pace was slower compared to some of its European peers, reflecting deeper structural challenges.

2.2.3 Germany

Germany's industrial prowess defined its foreign investment landscape. FDI inflows reached $194 billion in 2007, largely attributed to its dominant position in manufacturing, particularly in automotive and engineering (OECD, 2008). Investors sought access to Germany's world-class infrastructure and its position as a global

leader in technology-driven industries. This has made it a key destination for multinational companies seeking to tap into Europe's industrial heartland; for example, California-based multinational computer company Intel has expanded its chip manufacturing capacity in Germany.

Germany's post-crisis recovery has been among the strongest in Europe, supported by its robust export-led economy. Although inflows fell by 50% in 2009, they recovered by 2013 to $134 billion, eventually reaching $165 billion by 2018 (Eurostat, 2018). German economic policy has aimed to make a comeback in sectors where it previously excelled, such as automotive. Tesla's decision in 2018 to build a Gigafactory in Berlin was strongly desired and sponsored by German politics.

2.2.4 Spain

Spain's FDI boom in the mid-2000s was distinctly linked to its real estate sector, with inflows hitting $68 billion by 2007 (OECD, 2008). The nation's economic model during this period was heavily reliant on construction and tourism, sectors that attracted a significant portion of foreign capital. This differed markedly from Germany's industrial focus or the UK's financial magnetism. Spain's rapidly expanding housing market, combined with favorable conditions for foreign investors, helped fuel unprecedented growth, but it also exposed the economy to volatility (UNCTAD, 2008). For example, the French hotel group Accor expanded its presence in Spain in 2010, acquiring 40 new hotels located in the most famous coastal cities.

The financial and sovereign debt crises hit Spain particularly hard, leading to a steep contraction in FDI flows. By 2012, inflows had shrunk to just $16 billion (OECD, 2013). Unlike France or Germany, Spain's recovery was slow, hindered by deep structural issues and high unemployment. However, by 2018, the country began to attract renewed investment, particularly in renewable energy and technology, with inflows recovering to $35 billion (Eurostat, 2018). In the tech sector, Amazon opened new logistics centers in Spain, capitalizing on the country's growing e-commerce market. Key reforms in labor market flexibility and efforts to diversify away from real estate played a critical role in restoring investor confidence (OECD, 2019).

2.3 Asia

From 2003 to 2008, Asia saw a surge in Foreign Direct Investment (FDI), largely driven by its increasing integration into global supply chains and the rise of large consumer markets. According to UNCTAD, total FDI inflows to the region during this period exceeded $1.7 trillion. The principal recipients were China, India, and the Southeast Asian economies, which benefitted from global companies relocating manufacturing to leverage lower production costs. As Asia grew into a critical node

in global value chains, several key sectors—including electronics, automotive, and telecommunications—became magnets for foreign capital.

The global financial crisis of 2008 marked a turning point for FDI flows into Asia. While inflows initially contracted, the region recovered faster than the rest of the world, with total FDI inflows reaching approximately $3.5 trillion during the 2008-2018 period. The post-crisis decade saw a shift in FDI patterns, with increasing investments in technology, infrastructure, and consumer-driven sectors, with a clear shift from low-cost manufacturing to high-tech industries, infrastructure, and services.

2.3.1 China

Between 2003 and 2008, China received more than $600 billion in FDI, solidifying its role as the leading FDI destination in Asia. This period saw China's manufacturing sector become the backbone of global production, especially in electronics and consumer goods. Companies like Apple and Samsung expanded their production lines in China, particularly in cities like Shenzhen and Dongguan, where Foxconn became one of the largest employers, producing a significant portion of the world's electronics, including iPhones and MacBooks.

Automotive manufacturing also grew rapidly during this period, driven by investments from companies such as Volkswagen, General Motors, and Honda. In 2007, Volkswagen invested nearly $1 billion to expand its plants in China, catering to both the domestic market and exports. By the end of 2008, China had become the world's third-largest automobile producer, with FDI playing a central role in this growth.

Beyond manufacturing, real estate also attracted significant FDI, particularly in urban centers such as Beijing, Shanghai, and Guangzhou. Foreign investors capitalized on China's urbanization trends, with firms like Swire Properties and CapitaLand heavily investing in residential and commercial projects. By 2008, FDI in China's real estate sector accounted for nearly 20% of the total inflows, driven by rising demand for urban housing and commercial spaces.

China continued to dominate the FDI landscape, receiving over $1.2 trillion between 2008 and 2018. However, the nature of FDI changed significantly, as the country moved up the value chain. High-tech manufacturing, services, and R&D became major sectors for FDI. The "Made in China 2025" initiative, launched in 2015, aimed to reduce China's reliance on low-cost manufacturing and upgrade its industries to focus on sectors like robotics, electric vehicles (EVs), and artificial intelligence (AI).

Tesla's 2018 investment in a Gigafactory in Shanghai exemplified this shift. It was the first wholly foreign-owned car plant in China, highlighting the country's shift toward attracting advanced manufacturing and high-tech industries. Tesla's

Gigafactory not only positioned China as a major EV producer but also marked a milestone in China's liberalization of its automotive sector for foreign investors.

FDI in financial services and real estate also remained significant during this period, although the Chinese government's tightening of regulations in 2017, particularly regarding speculative real estate investments, moderated the inflow in these sectors. Despite this, the consumer goods sector attracted increasing amounts of FDI, with global brands like LVMH, Procter & Gamble, and Nestlé expanding their operations to capture China's growing middle class.

2.3.2 India

India, although receiving less FDI than China, saw a steady rise in inflows, totaling approximately $120 billion between 2003 and 2008. A key driver was the telecommunications sector, which attracted significant foreign investment due to the liberalization of policies that allowed greater foreign ownership. Vodafone's $11 billion acquisition of Hutchison Essar in 2007 remains one of the largest FDI deals in Indian history, marking the entry of global telecommunications players into India's rapidly expanding mobile market.

The information technology (IT) and business process outsourcing (BPO) sectors also saw significant growth, with major global firms like IBM and Accenture expanding their operations in cities such as Bangalore and Hyderabad. By 2008, India had solidified its position as a global IT hub, with FDI in the IT services sector contributing to over 25% of India's total inflows during this period.

India experienced a marked increase in FDI between 2008 and 2018, receiving nearly $360 billion. One of the largest FDI deals in India's history during this period was the investment by Japan's SoftBank, which committed over $10 billion in Indian startups, particularly in the e-commerce, fintech, and renewable energy sectors. SoftBank's investments in companies like Flipkart and Paytm transformed India's e-commerce landscape, positioning it as one of the fastest-growing digital economies in the world.

Telecommunications and IT services continued to attract substantial FDI, with companies like Google and Microsoft expanding their operations in India. By 2018, the technology sector accounted for nearly 30% of total FDI inflows, solidifying India's role as a global tech powerhouse.

2.3.3 Southeast Asia (ASEAN)

Southeast Asia attracted substantial FDI between 2003 and 2008, particularly in manufacturing, financial services, and real estate. Singapore remained the region's largest FDI recipient, drawing in over $110 billion during this period. The financial services sector saw robust growth, with firms such as Citigroup and UBS

establishing regional headquarters in Singapore to serve the broader Asia-Pacific region.

Malaysia and Thailand also saw significant inflows, particularly in the automotive and electronics industries. Japan's Toyota and Panasonic were major investors, establishing manufacturing hubs in Malaysia and Thailand. By 2008, Thailand had become the largest automobile producer in Southeast Asia, with nearly 1.5 million vehicles produced annually, much of it driven by FDI.

Southeast Asia attracted around $700 billion in FDI during 2008–2018, with a noticeable shift towards high-tech manufacturing and infrastructure. Singapore remained the region's largest FDI recipient, with inflows exceeding $250 billion. However, Vietnam emerged as a significant manufacturing hub during this period, attracting over $70 billion in FDI, particularly in electronics and textiles.

Samsung played a pivotal role in Vietnam's rise as a global electronics manufacturer, investing over $17 billion to establish its largest smartphone manufacturing facility in the country. By 2018, Samsung produced nearly half of its global smartphone output in Vietnam, making the country a key player in the global electronics supply chain.

The ASEAN region also saw increased FDI in infrastructure projects, particularly in transport and energy. Countries like Indonesia and the Philippines attracted investments in renewable energy, with firms like Ørsted and AC Energy expanding wind and solar power projects to meet rising energy demand.

2.3.4 Japan and South Korea

Japan and South Korea, while receiving modest FDI compared to other Asian countries, remained important investment destinations due to their advanced industrial bases. Japan attracted $30 billion in FDI between 2003 and 2008, largely in the financial services and advanced manufacturing sectors. South Korea, on the other hand, received approximately $55 billion in FDI, focusing on high-tech industries such as electronics and semiconductors. Samsung and LG received foreign capital to expand their research and development (R&D) operations, solidifying South Korea's position as a global leader in electronics.

Japan and South Korea saw moderate FDI inflows during the 2008–2018 period, with Japan attracting $50 billion and South Korea around $110 billion. Both countries focused on innovation-driven FDI, particularly in sectors such as robotics, biotechnology, and semiconductors.

Japan's renewable energy sector also began attracting foreign investment after the Fukushima nuclear disaster in 2011, with increased FDI in solar and wind energy projects. Meanwhile, South Korea's *chaebols*, such as Samsung and Hyundai, continued to attract foreign capital for joint ventures in advanced technologies like 5G, electric vehicles, and biotechnology.

2.4 North America

Between 2003 and 2008, North America recorded a significant increase in Foreign Direct Investment (FDI) flows, with total inflows amounting to approximately $1.3 trillion, of which over $1 trillion was concentrated in the United States (UNCTAD, 2009). During this period, FDI in the U.S. was heavily concentrated in technology, financial services, and real estate sectors, establishing the U.S. as a global leader in technological innovation. However, the 2008 financial crisis induced a major shift in FDI sectoral distribution. From 2008 to 2018, as the economy gradually recovered, North America attracted nearly $2 trillion in FDI, with greater diversification across sectors, notably renewable energy and advanced manufacturing (OECD, 2019). Canada also continued to experience significant FDI inflows, particularly in natural resources, while Mexico solidified its role as a manufacturing hub for the automotive and aerospace industries (Eurostat, 2018).

2.4.1 USA

Between 2003 and 2008, North America experienced a notable increase in Foreign Direct Investment (FDI), with inflows totaling approximately $1.3 trillion, according to UNCTAD data. Of this, the United States alone absorbed over $1 trillion, accounting for more than 80% of total FDI to the region. Investment patterns in the U.S. were heavily concentrated in sectors such as information technology, financial services, and real estate, which together attracted over 60% of total inflows. The rapid expansion of Silicon Valley and the U.S. dominance in tech innovation played a significant role in drawing capital. For example, major investments from foreign firms such as Japan's SoftBank in U.S. tech companies helped propel the U.S. as a leader in this sector during the period.

A notable case study involves the financial services sector, which saw massive FDI inflows, particularly from European investors. This sector contributed to the creation of cross-border banking conglomerates, yet also contributed to vulnerabilities that became evident during the 2008 financial crisis.

Between 2008 and 2018, North America's FDI landscape shifted in response to the global financial crisis of 2008 and the subsequent recovery period. Total FDI inflows to the region amounted to approximately $2 trillion, with varying impacts across countries and sectors. The United States continued to dominate, receiving roughly $1.5 trillion in FDI, although the sectoral distribution shifted significantly compared to the 2003–2008 period.

In the U.S., the immediate aftermath of the financial crisis saw a sharp decline in FDI into the financial services and real estate sectors, which had previously been major drivers of investment. Between 2008 and 2010, FDI inflows into these sectors decreased by nearly 40%. However, technology and advanced manufacturing became

the new focal points for FDI inflows post-crisis. Companies such as Germany's Siemens and South Korea's Samsung heavily invested in U.S. manufacturing, particularly in automation and electronics production. By 2015, technology-related FDI accounted for nearly 30% of all new inflows into the U.S., with foreign firms seeking to capitalize on the rise of Industry 4.0 technologies, including artificial intelligence, robotics, and advanced data analytics.

The renewable energy sector also saw a surge in FDI, driven by favorable government policies and the global shift towards sustainability. Firms like Denmark's Ørsted and Spain's Iberdrola made significant investments in U.S. wind and solar power projects, contributing to a 25% increase in FDI in the renewable energy sector between 2010 and 2018. By the end of the period, the U.S. had established itself as a global leader in both traditional technology sectors and the emerging green economy.

2.4.2 Canada

Canada attracted approximately $250 billion in FDI during 2003-2008, with a heavy concentration in its natural resources sector. For instance, the Alberta oil sands became a focal point for foreign investment, particularly from U.S. and Chinese firms such as ExxonMobil and CNOOC, which sought to capitalize on rising global oil prices. By the end of the period, over 40% of all FDI into Canada was directed toward energy and mining projects. However, following the 2008 crash, the volatility in commodity prices forced Canada to diversify its FDI targets.

Between 2008 and 2018, Canada experienced FDI inflows of approximately $300 billion, with continued concentration in the natural resource sectors but with significant diversification into renewable energy and technology. The drop in oil prices in 2014 forced Canada to pivot away from its heavy reliance on fossil fuels, resulting in a 15% decrease in FDI into the energy sector between 2014 and 2018. This was partially offset by increased foreign investment in renewable energy projects, especially wind and hydroelectric power. Danish company Vestas and U.S.-based Brookfield Renewable Partners became major investors in Canada's growing renewable energy infrastructure. Moreover, Canada began attracting more technology-focused FDI, particularly in its urban centers like Toronto and Vancouver, which became hubs for software development and AI research. This shift marked Canada's gradual transition toward a knowledge-based economy, with the tech sector attracting nearly 20% of total FDI inflows by 2018.

2.4.3 Mexico

Mexico, meanwhile, received $70 billion in FDI between 2003 and 2008, with a strong focus on the automotive and electronics sectors. Case studies show that

large multinational corporations, including General Motors and Samsung, invested heavily in establishing manufacturing plants in Mexico's northern regions, taking advantage of lower labor costs and NAFTA-driven trade benefits. In fact, FDI into Mexico's automotive industry accounted for nearly 30% of total inflows during this period.

By comparison, from 2008 to 2018, the total FDI inflows into Mexico during this period amounted to approximately $200 billion. The country solidified its role as a global manufacturing hub, particularly in the automotive, aerospace, and electronics industries. Major investments from companies like General Motors, Nissan, and Bombardier helped fuel this growth. The automotive sector alone accounted for nearly 35% of Mexico's FDI inflows, with a significant concentration in the northern industrial hubs of Monterrey and Ciudad Juárez.

One key case study involves Bombardier, which significantly expanded its aerospace manufacturing facilities in Querétaro, Mexico, during this period. By 2018, Mexico had become one of the top global destinations for aerospace manufacturing FDI, receiving investments from firms such as France's Safran and the U.S.'s Honeywell. Renewable energy also became an important sector for FDI in Mexico, with companies like Italy's Enel Green Power investing heavily in solar and wind energy projects. This growth was facilitated by Mexico's 2013 energy reforms, which opened the sector to greater private and foreign investment. By the end of 2018, renewable energy projects accounted for nearly 10% of all new FDI in Mexico, demonstrating the country's increasing focus on sustainable energy solutions.

2.5 Africa

During the period 2003-2008, Africa saw a significant rise in Foreign Direct Investment (FDI), driven by high global demand for natural resources. Inflows surged to $53 billion by 2008 (UNCTAD, 2009), particularly benefiting resource-rich nations like Nigeria, Angola, and South Africa. Nigeria attracted large investments in its oil sector, including notable operations by Shell and ExxonMobil, while Angola saw similar investments in oil and gas. South Africa's economy, more diversified, drew FDI not only in mining but also in sectors such as finance and manufacturing. Projects like the development of the Gautrain, a rapid transit system in Johannesburg, highlighted South Africa's capacity to channel FDI into critical infrastructure (OECD, 2008). In North Africa, Egypt and Morocco also experienced considerable growth in FDI. Egypt's telecommunications and energy sectors were key areas for foreign investment, with major projects like BP's development of natural gas fields in the Nile Delta significantly bolstering inflows. Morocco, meanwhile, focused on diversifying its economy, attracting substantial investments

in automotive manufacturing, especially with Renault-Nissan's establishment of one of the largest car assembly plants in North Africa, positioning the country as a regional hub for the automotive industry (UNCTAD, 2008). The global financial crisis of 2008 caused FDI inflows to Africa to drop to $46 billion in 2009 (OECD, 2010). However, between 2009 and 2018, the recovery was uneven. While resource-dependent economies like Nigeria and Angola struggled due to volatile commodity prices, other nations like Ethiopia and Kenya became rising stars. Ethiopia's ambitious infrastructure projects, such as the Grand Ethiopian Renaissance Dam, attracted substantial foreign capital, marking a shift toward industrialization and manufacturing, particularly in textiles. Kenya, with its burgeoning tech industry centered around Nairobi's "Silicon Savannah," attracted FDI in technology and services, diversifying away from traditional agriculture (UNCTAD, 2019).

North African countries, particularly Egypt and Morocco, also showed resilience. Egypt regained investor confidence with landmark energy projects, such as the Zohr gas field, which attracted billions in FDI and positioned Egypt as a key energy player in the Mediterranean. Morocco's renewable energy projects, including the Ouarzazate Solar Power Station, the largest concentrated solar plant in the world, drew attention from international investors, further cementing its role as a leader in sustainable development (OECD, 2019). By 2018, FDI inflows to Africa had reached $55 billion, though recovery patterns varied across the continent (Eurostat, 2018). While some nations successfully diversified their economies, others remained tied to fluctuating global markets. The unique dynamics of African FDI illustrate how political stability, infrastructure development, and sectoral diversification shaped the investment landscape, driving specific countries to the forefront of global interest.

2.6 Latin America

2.6.1 Brazil

In Brazil, FDI inflows amounted to approximately $10.1 billion in 2003, reaching $45.1 billion by 2008 (UNCTAD, 2009); the growing middle class and the discovery of vast oil reserves, particularly in the pre-salt basins, attracted significant foreign investment. The Brazilian state-owned oil company Petrobras, for instance, became a focal point of international interest, with Royal Dutch Shell and Chevron participating in joint ventures aimed at exploiting these new reserves. The country's manufacturing sector also benefited, with automotive giants like Fiat and Volkswagen expanding their production capabilities.

From 2009 onwards Brazil's FDI inflows remained robust, particularly in infrastructure projects, which gained momentum as the country prepared to host the 2014 FIFA World Cup and the 2016 Summer Olympics; In 2018 the country

reached the record figure of $88.3 billion (UNCTAD, 2019). Notable foreign-led projects included Odebrecht's partnership with international firms to build new stadiums and improve transportation networks. In addition, Brazil's renewable energy sector saw growing interest, with companies like Enel Green Power investing heavily in wind and solar energy projects. This marked a shift from the earlier focus on oil and gas to more sustainable forms of energy, setting Brazil apart as a leader in the region's renewable energy transition.

2.6.2 Chile

Chile, on the other hand, drew significant investment into its mining sector, as global demand for copper soared. Companies like BHP Billiton and Rio Tinto invested heavily in the development of Chile's copper mines, which accounted for a substantial portion of the country's exports.

In 2003, Chile received around $4.3 billion in FDI, and by 2008, inflows had risen to approximately $16.7 billion (UNCTAD, 2009). After the global crisis, when the FDI's inflows dropped by about 70%, the Andean country continued to attract foreign capital into its mining sector, although the government's push towards renewable energy led to increasing FDI in wind and solar projects. By 2018, FDI inflows had stabilized at around $7.2 billion (UNCTAD, 2019). The Atacama Desert, with some of the highest solar radiation levels in the world, became a focal point for solar energy projects, with foreign companies like SunPower and First Solar establishing large-scale solar farms. Chile's foresight in embracing renewable energy not only attracted international investors but also positioned the country as a regional leader in sustainable development.

2.6.3 Argentina

Argentina, recovering from the economic crisis of the early 2000s, saw renewed foreign interest in its agricultural sector, particularly in soy production. Cargill and ADM (Archer Daniels Midland) were among the international agribusiness giants that invested in expanding Argentina's export-oriented agriculture. However, Argentina's growth has been more fragile than that of Brazil or Chile, as macroeconomic volatility and regulatory uncertainties persisted, complicating investment flows; in absolute terms, it went from $1.7 billion of FDI in 2003 to $9.7 billion in 2008 (UNCTAD, 2009).

In the following years the country's economic instability, exacerbated by recurrent debt crises, saw FDI inflows decline to $3.1 billion in 2012 but recover to $11.9 billion by 2018 (UNCTAD, 2019). Despite these challenges, the Vaca Muerta shale formation attracted significant foreign interest in the latter part of the decade. Companies like Chevron and YPF invested billions into developing

Argentina's shale oil and gas reserves, offering a potential lifeline for the country's beleaguered economy. While Argentina's FDI recovery was more limited, these energy investments hinted at the country's untapped potential in unconventional energy resources.

2.6.4 Oceania

Between 2003 and 2008, Oceania, particularly Australia and New Zealand, experienced significant inflows of Foreign Direct Investment (FDI). Australia attracted the majority of these investments, with net FDI inflows increasing from approximately $30 billion in 2003 to over $50 billion in 2008, driven by its abundant natural resources and stable economic environment. Notably, the Gorgon LNG Project, a joint venture involving Chevron, ExxonMobil, and Shell, represents one of the largest single resource developments in Australia's history, with an investment exceeding $54 billion.

Additionally, in 2018, the French property group Unibail-Rodamco acquired Westfield Corporation, an Australian shopping center operator, for approximately $15.7 billion, marking a significant transaction in the retail sector.

New Zealand, though on a smaller scale, saw FDI inflows rise from about $1.5 billion in 2003 to over $3 billion in 2008, with investments concentrated in the agricultural and manufacturing sectors. For instance, in 2019, the Chinese state-owned enterprise acquired a 70% stake in Zespri Kiwifruit, one of New Zealand's leading kiwifruit exporters, for approximately NZD 2.2 billion. Furthermore, in 2018, the Swedish furniture giant IKEA announced plans to open its first store in New Zealand, signifying a substantial investment to establish a presence in the New Zealand market.

The global financial crisis of 2008 negatively impacted FDI inflows in the region. In Australia, net FDI inflows decreased to around $35 billion in 2009, while in New Zealand, they fell to approximately $1 billion. However, between 2009 and 2018, Oceania demonstrated a steady recovery. Australia's FDI inflows increased again, reaching about $60 billion in 2018, with a diversification of investments into sectors such as renewable energy and technology. New Zealand experienced more modest growth, with FDI inflows reaching around $4 billion in 2018, reflecting a growing interest in the technology sector and agricultural innovation.

Chapter 3

Italy: an overview

This section gives a thorough introduction to Italy, highlighting both its basic characteristics and exploring the complex web of its economic systems.

3.1 A concise portrayal of Italy

Italy, officially known as the Italian Republic, is situated in Southern Europe. Its capital, Rome, is centrally located within the country. To the north, Italy shares borders with France, Switzerland, Austria, and Slovenia, while its southern boundaries are defined by the Mediterranean Sea. The nation's territory encompasses continental, peninsular, and insular regions, including the major islands of Sicily and Sardinia. Prominent mountain ranges include the Alps, delineating the northern frontier, and the Apennines, which traverse the peninsula longitudinally.

As of January 1, 2024, Italy's resident population is estimated at approximately 58.99 million, reflecting a slight decrease from the previous year. The population density stands at about 195.7 inhabitants per square kilometer, surpassing the European average. Population distribution is uneven, with higher concentrations in the Po Valley in the north and the metropolitan areas of Rome and Naples in the central and southern regions. The median age is 47.8 years, with 23.8% of the populace aged 65 or older. The official language is Italian; however, recognized linguistic minorities include German in South Tyrol, French in the Aosta Valley, and Slovene in certain areas of Friuli-Venezia Giulia. The predominant religion is Roman Catholicism, practiced by the majority of the population. Italy is renowned for its rich cultural and historical heritage, boasting numerous UNESCO World Heritage Sites.

3.1.1 Historic Overview

Italy's historical origins trace back to ancient civilizations, including the Etruscans, Greeks, and Romans. The Roman Empire, established in 27 BC, profoundly influenced Western culture, law, and governance. Following the empire's decline in the 5th century AD, the Italian peninsula fragmented into various states and kingdoms. The Renaissance, originating in Italy during the 14th century, marked a period of significant cultural and intellectual revival. In the 19th century, the Risorgimento movement led to the unification of Italy, culminating in the establishment of the Kingdom of Italy in 1861. During World War II, the Italian Resistance (*Resistenza*) emerged as a significant movement opposing fascist and Nazi forces, contributing to the liberation of Italy. Post-World War II, Italy transitioned to a republic in 1946 and became a founding member of the European Union in 1957. Today, Italy is recognized for its rich cultural heritage, economic contributions, and pivotal role in international affairs.

3.1.2 National Political System

According to the Constitution enacted on December 27, 1947, and effective from January 1, 1948, Italy is a "democratic Republic founded on labor." The Constitution establishes a clear separation of powers among the legislative, executive, and judicial branches. The legislative power is vested in a bicameral Parliament, comprising the Chamber of Deputies and the Senate of the Republic. Members of both houses are elected by universal suffrage, with deputies serving five-year terms and senators serving five-year terms as well. The President of the Republic, elected by Parliament and regional representatives for a seven-year term, serves as the head of state and symbolizes national unity. The executive power is exercised by the Council of Ministers, led by the President of the Council (Prime Minister), who is appointed by the President of the Republic and must retain the confidence of Parliament. The judiciary operates independently, ensuring the application and interpretation of laws in accordance with constitutional principles. Over the years, the Italian Constitution has undergone several amendments to address evolving political, social, and economic contexts, while maintaining its foundational democratic values.

3.1.3 Economy

Before analyzing the influence of the FDI determinants, an overview of the Italian economy is necessary to better understand the general reasons that drive multinational enterprises to invest in a particular state.

Italy's economy, the third largest in the Eurozone, plays a significant role both regionally and globally. Historically, Italy transformed from a largely agrarian society in the late 19th century to one of Europe's industrial powers after World

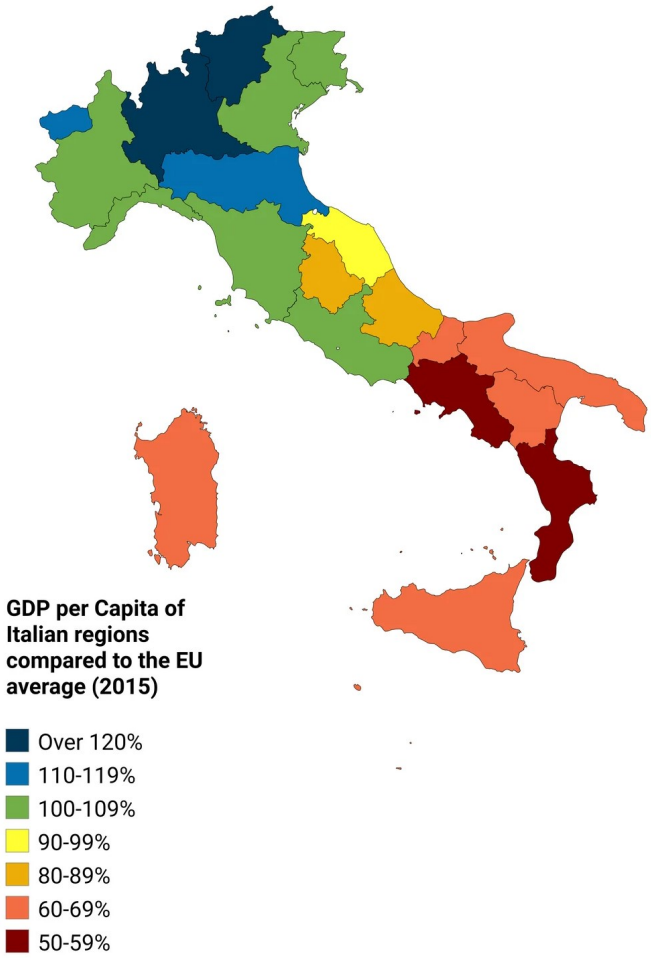

Figure 3.1: GDP per capita of Italian regions compared to the EU average (ISTAT)

War II. This post-war boom, often referred to as the *Miracolo Economico* (Economic Miracle), saw Italy become a leader in sectors such as manufacturing, automotive, and textiles. However, in the following decades, structural weaknesses began to emerge, limiting long-term growth.

Italy is the eighth-largest economy by nominal GDP and ninth by net wealth. In 2018 the GDP was $2.07 trillion USD with a 0.8% growth with respect to 2017 and the GDP per capita was $34,260 USD.

Today, Italy faces a mix of strengths and persistent challenges. On one hand, the country remains a global leader in industries like luxury goods, machinery, and automotive manufacturing. Italian companies such as Fiat, Ferrari, and Luxottica are world-renowned, while the *Made in Italy* brand in sectors such as fashion,

design, and food remains a key driver of export growth. In 2021, exports accounted for nearly 32% of Italy's GDP, reflecting the country's significant role in global trade (World Bank, 2022).

However, Italy's economy is constrained by several structural issues. One of the most pressing is its stagnant GDP growth. Over the past two decades, Italy has experienced sluggish economic expansion, with GDP growth rates averaging less than 1% per year between 2000 and 2019 (OECD, 2020). This stagnation is largely attributed to low productivity, a high public debt burden, and an aging population. In 2020, Italy's public debt reached 156% of GDP, one of the highest ratios in the world (IMF, 2021). Such a high debt level limits the government's ability to invest in growth-stimulating policies and leaves the country vulnerable to economic shocks.

Labor Market and Unemployment

Italy's labor market also faces significant challenges, particularly regarding youth and female employment. Youth unemployment is a persistent issue, with rates hovering around 30% in 2020, one of the highest in the European Union (Eurostat, 2021). The labor market also suffers from a mismatch between education and employment opportunities, with many young Italians emigrating to seek better prospects abroad. This so-called "brain drain" has negative long-term implications for Italy's innovation capacity and economic growth.

Female participation in the workforce is another critical issue. In 2019, only 56% of Italian women aged 15-64 were employed, compared to the EU average of 67% (Eurostat, 2021).

Public Debt and Fiscal Policies

Italy's high public debt, as mentioned earlier, has long been a point of concern for international observers. The country's fiscal policies have been constrained by this debt burden, as servicing the debt consumes a large portion of government revenues. Despite efforts to reduce the deficit, including a controversial pension reform in 2011 and ongoing austerity measures, Italy has struggled to balance stimulating growth with maintaining fiscal discipline. The COVID-19 pandemic further exacerbated this issue, as the Italian government was forced to increase public spending to support businesses and individuals affected by lockdowns, pushing public debt to unprecedented levels.

However, Italy's fiscal outlook may benefit from the European Union's NextGenerationEU recovery plan, which allocates significant funds to member states for investment in green and digital technologies. Italy is set to receive over €200 billion in grants and loans, making it the largest beneficiary of this fund (European Commission, 2021). These investments are expected to focus on infrastructure,

innovation, and ecological transition, potentially providing a much-needed boost to Italy's long-term growth prospect.

Regional Disparities

One of the most distinctive features of the Italian economy is the pronounced regional disparity between the affluent North and the less developed South. The North of Italy is home to some of Europe's most industrialized and wealthiest regions, such as Lombardy and Emilia-Romagna. In contrast, Southern Italy continues to suffer from higher unemployment, lower levels of productivity, and limited industrial capacity. This North-South divide is a significant impediment to Italy's overall economic development and social cohesion.

According to the Italian National Institute of Statistics (ISTAT, 2020), GDP per capita in the southern regions is approximately 55% of that in the North, and unemployment rates are nearly double. These disparities have prompted various government initiatives over the years, including EU structural funds aimed at promoting development in the *Mezzogiorno*. However, the success of these policies has been limited, and the South continues to face significant economic challenges.

The decision to focus my thesis on the economic disparity between Northern and Southern Italy stems from the desire to explore one of the most enduring and complex challenges within the Italian economy. This topic offers a multifaceted analysis that touches on historical, socio-economic, and policy-driven factors. Moreover, understanding these disparities is crucial for identifying potential solutions and strategies that can foster a more balanced development across the country. Below is an image to give an idea of which regions are part of Northern, Central, and Southern Italy.

3.2 Southern Question

The Southern Question (*Questione Meridionale*) refers to the socio-economic divide between Northern and Southern Italy, an issue that has persisted since the country's unification in 1861. This term encapsulates the complex and enduring inequalities in economic development, social infrastructure, and political representation that have shaped the *Mezzogiorno* (Southern Italy). Historically, the Southern Question emerged from the stark differences between the industrialized North, which benefited from economic growth and state investments, and the predominantly agrarian South, which suffered from chronic underdevelopment, poverty, and social marginalization.

Mercoledì 13 settembre 1972 CORRIERE DELLA SERA

LE PROSPETTIVE DI UN PROBLEMA CHE TORMENTA L'ITALIA

Il divario fra Nord e Sud verrà colmato solo nel 2020

La previsione è del professor Pasquale Saraceno ed è espressa in un rapporto per il ministero del bilancio
Lo sviluppo del Sud è avvenuto in modo disordinato, aggiungendo ai vecchi motivi di arretratezza nuove cause di disorientamento - Dualismo in Puglia fra costa ed entroterra - Investimento immobiliare, burocrazia e piccoli commerci invece di una spinta all'industrializzazione - Piramidi sulle sabbie mobili

La foto accanto riproduce i due altiforni del Centro siderurgico Italsider di Taranto. Gli altiforni sono alimentati da nastri trasportatori controllati automaticamente. Un aspetto di alta tecnologia, dunque. Siderurgia e petrolchimica hanno rappresentato finora le espressioni più avanzate dell'industrializzazione del Sud, ma — come osserva Antonio Spinosa — si tratta di attività produttive a scarso tasso d'occupazione. Avrebbero potuto costituire, comunque, lo spunto ad un'iniziativa privata che, nella misura in cui smobilitava in agricoltura, trovasse nuovi campi di espansione. Così non è stato: esiste una mentalità arcaica che crede nel mattone, nell'investimento redditizio di tipo classico, assai più di quanto creda nella tecnologia e nel « management ». O nella carriera statale. O, peggio, nel clientelismo politico. In questo quadro di arretratezza, laureati e diplomati non trovano sbocchi professionali, mentre un'« élite » intellettuale lotta tenacemente, quanto sfortunatamente, contro resistenze ancestrali. Questo è il tema dell'analisi di Spinosa, che è accompagnata da due tabelle l'una sulle quote di investimento nel Sud e l'altra sugli spostamenti avvenuti in un decennio all'interno delle varie attività lavorative.

Bisogna cambiare il modello di sviluppo

Figure 3.2: Article of Corriere della Sera (13 September 1972)

3.2.1 Historical Context and Origins

The roots of the Southern Question lie in the period preceding Italian unification. Before 1861, Southern Italy was part of the Kingdom of the Two Sicilies, which, despite having a relatively strong agricultural base, lagged behind Northern Italy in terms of industrialization and infrastructure development. Following unification, policies pursued by the new Italian state—such as unequal tax burdens and preferential treatment of the North for industrial investment—deepened the socio-economic gap. Scholars such as Antonio Gramsci argued that the new national elites effectively "colonized" the South, exploiting it for agricultural output while failing to develop its industrial capacity. Gramsci highlighted the role of hegemony in maintaining this North-South divide, emphasizing how the ruling classes in the North used economic and political power to maintain dominance over the South (Gramsci, 1971).

In the early 20th century, economist Francesco Saverio Nitti provided another critical analysis of the Southern Question, linking it to fiscal policies that further disadvantaged the South. Nitti argued that the South bore an unfair share of national taxation while receiving disproportionately fewer state investments. This fiscal disparity exacerbated the South's backwardness, leaving the region unable to compete with the rapidly industrializing North (Nitti, 1900).

3.2.2 Economic Disparities and Contemporary Impact

Even after the efforts of the post-World War II Italian governments to bridge the gap—most notably through the *Cassa per il Mezzogiorno* (Southern Development

Fund, 1950-1984)—the Southern Question remains unresolved. The Cassa was designed to stimulate industrialization and infrastructural development in the South. While some progress was made in building roads, schools, and other infrastructure, the initiative largely failed to create sustainable economic growth. Instead, many regions in the South became dependent on public subsidies without generating the necessary structural changes to become economically self-sufficient. This phenomenon has been referred to as *assistenzialismo*, or welfare dependency, which continues to characterize much of the Mezzogiorno's economy today (Trigilia, 1992).

Economically, the Southern Question manifests in a wide array of indicators. The South remains significantly behind the North in terms of Gross Domestic Product (GDP), productivity, employment rates, and quality of life. According to ISTAT, the Italian national statistics agency, in 2019, the per capita GDP in Southern Italy was approximately 56% of that in the North. Furthermore, unemployment rates in the South have remained persistently higher than in the North. Youth unemployment, in particular, is a major challenge; in 2019, youth unemployment in regions like Calabria and Sicily exceeded 50%, compared to just 20-25% in more affluent Northern regions such as Lombardy and Emilia-Romagna (ISTAT, 2020).

3.2.3 Structural Issues and Sectoral Analysis

Several structural issues continue to impede the development of Southern Italy. The region suffers from weak infrastructure, inadequate public services, and lower levels of investment in education and innovation. These factors contribute to a vicious cycle of underdevelopment, where poor infrastructure and low investment in human capital limit the region's capacity to attract both domestic and foreign investment. Furthermore, Southern Italy remains heavily reliant on traditional sectors, such as agriculture and tourism, which tend to generate lower levels of income and employment compared to the industrial and service sectors that dominate in the North. The agricultural sector, while still an important component of the Southern economy, is marked by inefficiencies, fragmented land ownership, and low productivity. Meanwhile, the tourism sector, though a potential growth engine, has struggled to fully capitalize on the region's natural and cultural assets due to inadequate infrastructure and governance issues (Trigilia, 2005).

The demographic dimension also plays a crucial role in the Southern Question. Over the past decades, the South has experienced significant population decline due to emigration, particularly among young people seeking better opportunities in the North or abroad. This demographic shift further exacerbates the South's economic problems, as the region loses its most educated and productive citizens. According to the Banca d'Italia, between 2002 and 2017, Southern Italy lost over

700,000 residents, a significant portion of whom were young, educated individuals (Banca d'Italia, 2018). This "brain drain" has created a demographic imbalance that makes long-term economic recovery even more difficult.

3.2.4 Policy Responses and Current Challenges

Over the years, various policy initiatives have been implemented to address the Southern Question. In recent decades, European Union structural funds have played an essential role in financing development projects in Southern Italy, but the effectiveness of these funds has been limited by issues of governance, corruption, and inefficiency at the local and regional levels (Carmignani & Giacomelli, 2010). Additionally, Italy's political landscape has often marginalized the South, with regional disparities being used as a political tool rather than addressed through coherent national strategies.

Chapter 4

FDI in Italy

The Southern Question, which underscores the historical socio-economic divide between Northern and Southern Italy, has shaped the disparities in Foreign Direct Investment (FDI) flows across the country. The North, benefiting from a stronger industrial base and more developed infrastructure, has consistently attracted higher levels of FDI, while the South, facing persistent underdevelopment, has lagged behind. These differences reflect deeper historical inequalities, where the South's reliance on agriculture and weaker infrastructure hinder its ability to compete. This context sets the stage for understanding the regional patterns of FDI in Italy and their broader implications.

4.1 History of FDI in Italy

FDI in Italy has undergone profound transformations, shaped by economic, political, and technological factors. In the 1950s and 1960s, during the economic boom, Italy attracted significant greenfield investments, particularly from the United States, which established new manufacturing infrastructures, capitalizing on a skilled and low-cost labor force (Source: OECD Historical FDI Reports, 1965). In the 1970s, the oil crisis led to a shift toward brownfield investments, as European and American multinationals acquired existing companies to mitigate risks, leveraging the already established infrastructure (Source: European Investment Bank, 1978).

With market liberalization in the 1980s, Italy continued to attract both greenfield and brownfield investments, depending on the sector. For instance, Carrefour and BNP Paribas acquired companies in the retail and financial services sectors (Source: Eurostat, 1988). In the 1990s, the privatization of state-owned enterprises like ENI and Telecom Italia further opened the market to foreign investors (Source: Bank of Italy, FDI Report 1995). In the early 2000s, Italy's entry into the Eurozone and the accompanying economic stability increased the country's attractiveness,

encouraging both strategic acquisitions in sectors like luxury and fashion, and greenfield investments in renewable energy (Source: UNCTAD, World Investment Report, 2002).

During the 2008 financial crisis, FDI focused on brownfield acquisitions, particularly in the banking sector, as a risk-minimizing strategy (Source: Bank of Italy, 2011). Nonetheless, emerging sectors such as digital technologies and green energy continued to see greenfield investments, spurred by government policies (Source: OECD, 2015). Over the past two decades, the distinction between greenfield and brownfield investments has blurred, with brownfield investments prevailing in mature sectors, while greenfield projects have expanded in innovative fields such as Industry 4.0 and renewable energy.

4.2 Description of the Foreign Direct Investments dataset

This study is based on a comprehensive analysis of the factors influencing Foreign Direct Investment (FDI) in Italy between 2003 and 2018, with a particular focus on the differences between the southern and northern regions of the country. The analysis draws from an extensive dataset that includes 2,671 investment cases by multinational enterprises (MNEs) from various countries and industrial sectors, totaling over €109.24 billion in capital investment.

The dataset examined provides detailed information on each investment project, including the date of investment, the investor's country of origin, the Italian region of destination, the economic sector, the capital invested, and the number of jobs created. The analysis focuses on the impact of infrastructure, population, and local economic conditions on companies' investment decisions across different Italian regions. The northern part of the country, with its greater availability of developed infrastructure and structured industrial areas, has attracted a significantly higher share of investments compared to the southern regions, which remain disadvantaged by inefficiencies in administration and infrastructural deficiencies.

4.2.1 Destination Region

Lombardy is the region that received the biggest amount of capital (approximately 26.38 billion euros, more than 24% of the total capital invested) followed by Lazio and Emilia-Romagna, respectively about 10.54 billion (9.64%) and 7.67 billion (7.02%).

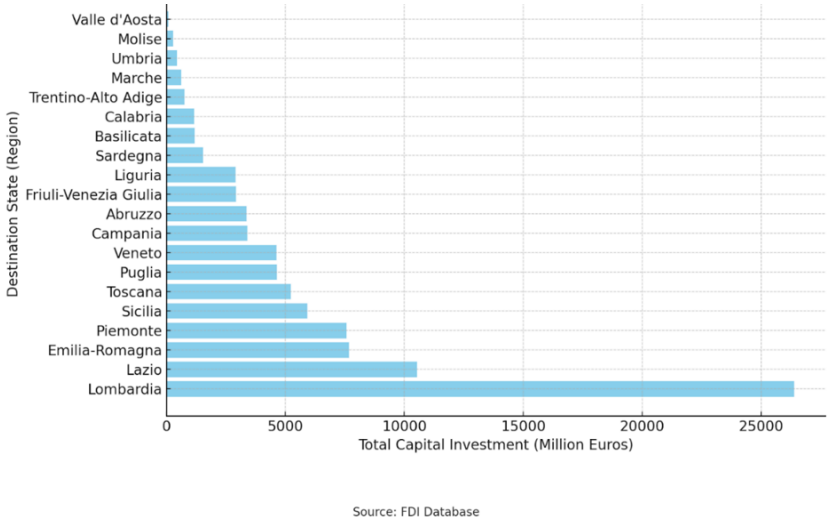

Figure 4.1: Foreign Direct Investment by Italian Regions (2003-2018)

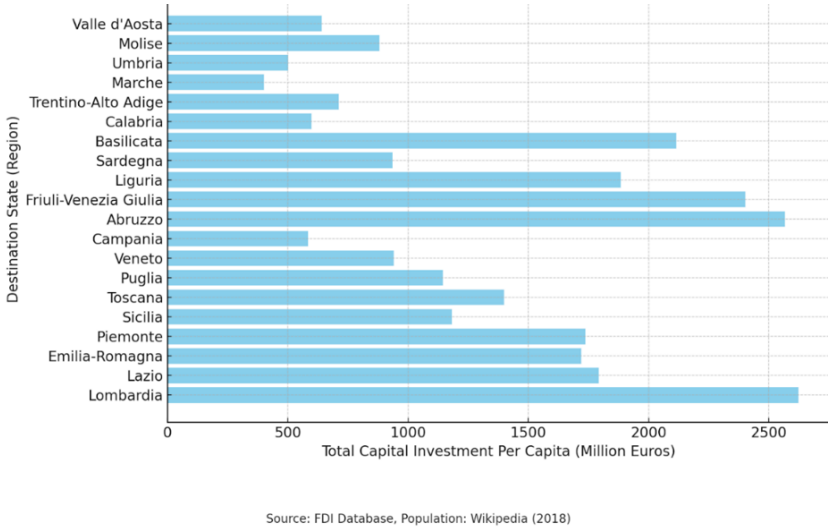

Figure 4.2: Foreign Direct Investment Per Capita by Italian Regions (2003-2018)

When considering the total number of investments received, Lombardy results the leading state with almost 1,001 investments (37.48%); Lazio and Piemonte come after, with approximately 337 (12.62%) and 150 (5.62%) inward FDI directed to their territory.

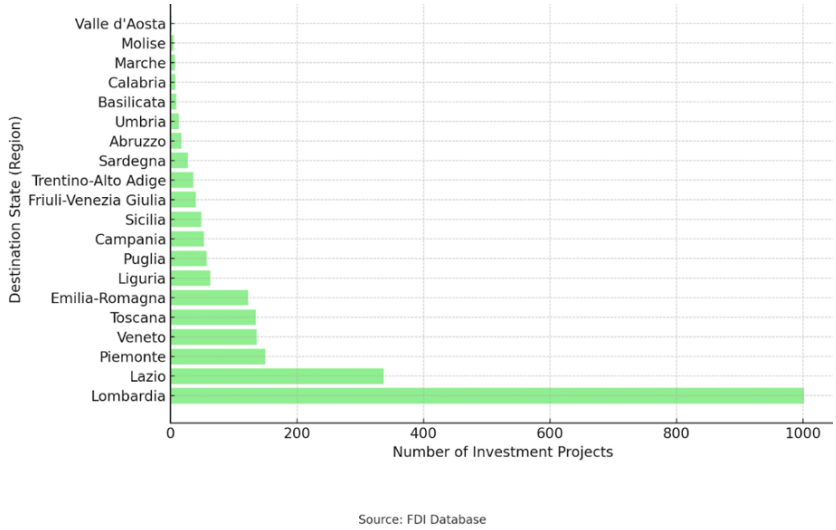

Figure 4.3: Total number of Foreign Direct Investment Projects by Italian Regions (2003-2018)

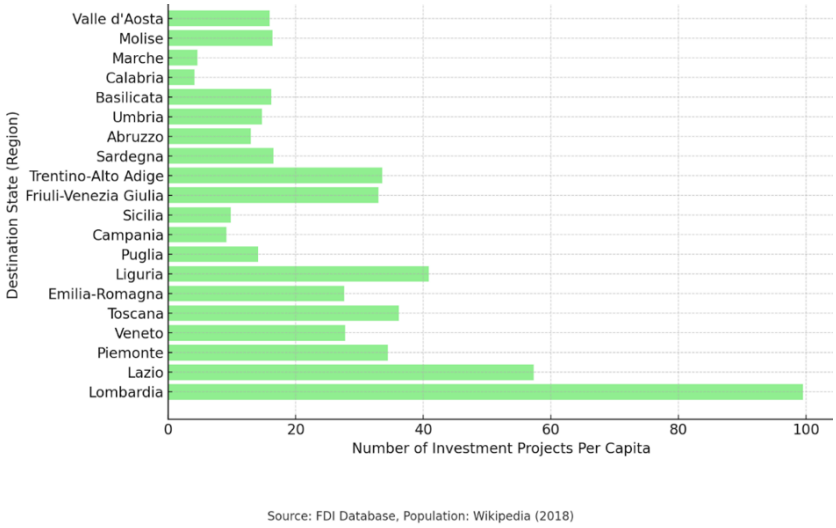

Figure 4.4: Foreign Direct Investment Projects Per Capita by Italian Regions (2003-2018)

In the context of Foreign Direct Investments in Italy, some of the key companies identified in the database exemplify significant capital-intensive projects. In Lombardy, one of the most prominent investors is Microsoft, which has invested in cloud computing infrastructure in Milan, aiming to develop new digital frameworks in Italy. This project highlights Milan's importance as a technological hub, capable

of attracting major global tech investments.

In Lazio, a notable investment comes from the French group Vinci, a global leader in infrastructure development, aimed at improving the Italian railway system. This project exemplifies how Rome and Lazio are attractive for infrastructure and public transportation investments due to the region's administrative centrality. In Piedmont, Bosch, a German company in the automotive sector, has contributed to the development of facilities dedicated to the production of electric vehicle components in Turin. This investment reflects the region's transition towards sustainable mobility innovation. Finally, in Emilia-Romagna, Unilever has invested in the agrifood sector, promoting sustainable food production projects. This project underscores the region's ability to attract foreign capital in innovative and highly competitive sectors.

4.2.2 Industry sector

The data indicating that the top ten sectors represent 63.55% of the total inward FDI stock in Italy highlights significant sectoral concentration in foreign investment. The dominance of textiles, which attracts 15.58% of total investments, is not surprising given Italy's historical expertise in fashion and luxury goods. The textile industry is one of the country's most renowned sectors, especially in regions such as Lombardy, Tuscany, and Veneto, which are global hubs for high-quality fabrics, design, and manufacturing. Foreign investors are drawn to these strengths, seeking to benefit from Italy's established supply chains, craftsmanship, and global brand recognition.

The prominence of software and IT services, accounting for 9.74% of total investments, reflects Italy's increasing importance as a digital economy. With significant growth in tech hubs, particularly in cities like Milan, foreign enterprises find Italy an attractive destination for technology and innovation-related investments. The growing demand for digital transformation in both the private and public sectors further supports this trend.

Financial services, making up 7.15% of inward FDI, are another critical sector for Italy, driven by its role as a major Eurozone economy. Milan, in particular, serves as the country's financial center, attracting investments in banking, insurance, and asset management. Foreign investors are drawn to the stability and opportunities provided by Italy's established financial infrastructure and its access to the broader European market.

Business services, with 6.82% of the total, represent a crucial support industry for foreign enterprises looking to enter the Italian market. This includes legal, consulting, and professional services, which are essential for facilitating cross-border business operations. Italy's strategic location in Europe and its role as a hub for multinational corporations reinforce the importance of these services.

Lastly, transportation, representing 5.88% of investments, is another sector where Italy holds significant appeal. The country's strategic position in the Mediterranean, combined with its developed transportation infrastructure—including major ports like Genoa and Naples—makes it a key player in global logistics and shipping industries. Foreign investors are attracted to Italy's ability to connect markets across Europe, Africa, and the Middle East.

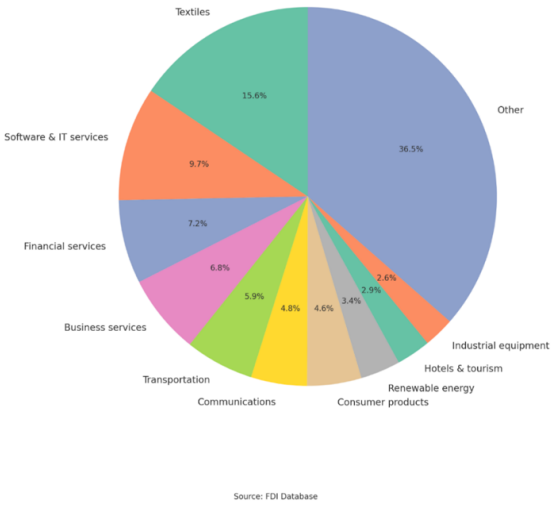

Figure 4.5: Top 10 Sectors by Number of Projects (2003-2018)

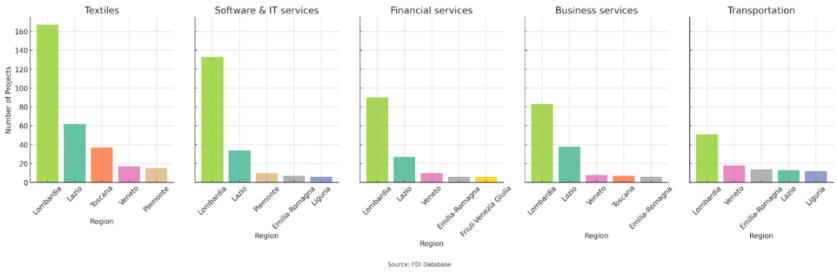

Figure 4.6: Top 5 Regions by Number of Projects for Top 5 Sectors (2003-2018)

Things change when considering the amount of capital invested in each sector.

The 66.74% of the capital invested is concentrated in the first 10 most financed sectors, with coal, oil and gas leading with the 10.57%, followed by communications (9.8%), consumer products (9.22%), renewable energy (7.79%) and transportation (6.73%).

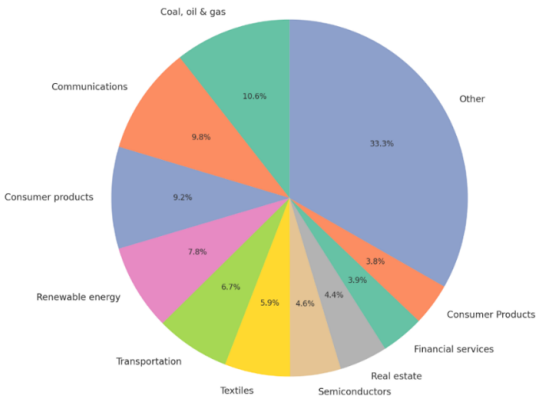

Figure 4.7: Top 10 Sectors by Capital Investment (2009-2018)

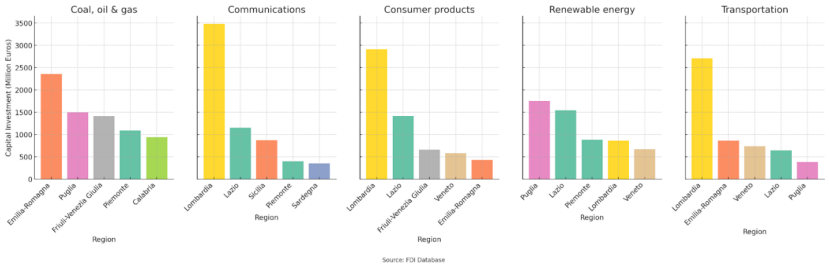

Figure 4.8: Top 5 Regions by Capital Investment for Top 5 Sectors (2003-2018)

4.2.3 Industry activity

Foreign Direct Investment (FDI) in Italy is predominantly concentrated in the services sector, with Sales, Marketing & Support (25.98%), Retail (22.73%), and Business Services (16.02%) together accounting for nearly 65% of total FDI. This trend reflects a broader global pattern, where services are the primary target for foreign investors in developed economies. Companies are drawn to Italy's strategic position within Europe and its well-established consumer market, making it a prime destination for investments aimed at establishing a market presence and offering support services.

For example, Karen Millen, a UK-based fashion retailer, invested in Italy's retail sector by establishing a presence in unspecified Italian regions. This aligns with the company's strategy to tap into the lucrative Italian fashion market, known for its consumer base with high demand for luxury goods. Similarly, Ashurst, a major UK law firm, invested in Rome, focusing on Business Services by setting up legal consultancy operations, likely aimed at leveraging Italy's strong business environment in the legal and financial sectors.

On the other hand, manufacturing attracts a smaller share of FDI, accounting for

10.6%, as many production activities are offshored to regions with lower costs, such as Eastern Europe. However, Italy still attracts niche, high-value manufacturing investments. An example is Havaianas from Brazil, which invested in Rome, indicating an interest in expanding its presence in the luxury footwear market, where Italian craftsmanship and consumer preferences play a crucial role.

Investments in logistics and transportation represent only 6.25% of FDI. Despite Italy's key ports, such as in Genoa and Trieste, companies often prefer to invest in countries with more advanced logistical hubs.

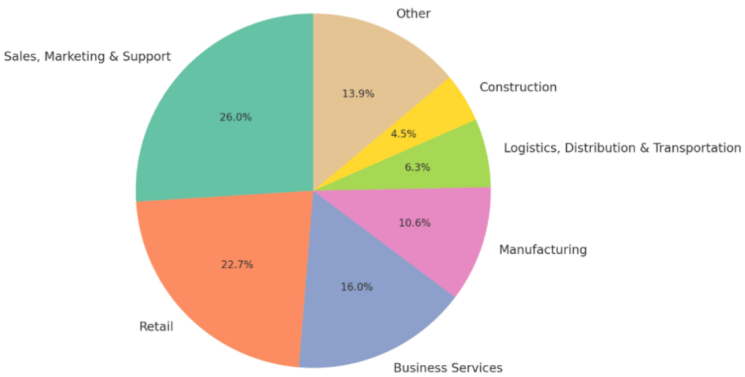

Figure 4.9: Top 6 Industry Activities by Number of Foreign Direct Investment Projects (2003-2018)

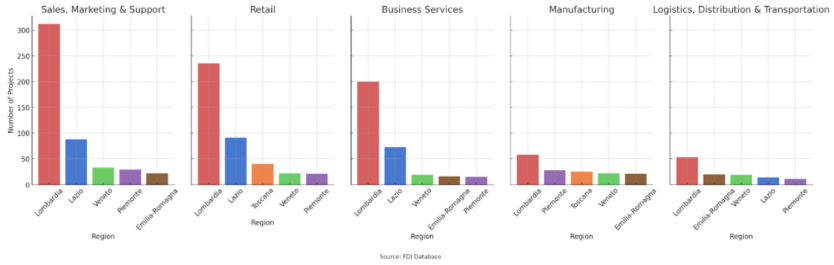

Figure 4.10: Top 5 Regions by Number of Projects for Top 5 Industry Activities (2003-2018)

Considering the amount of capital invested in each industry activity, manufacturing leads by far with a share of 23.7%, followed by retail (19.27%), Logistics, Distribution & Transportation (12.9%), ICT & Internet Infrastructure (8.20%), Electricity (7.91%) and Construction (7.25%).

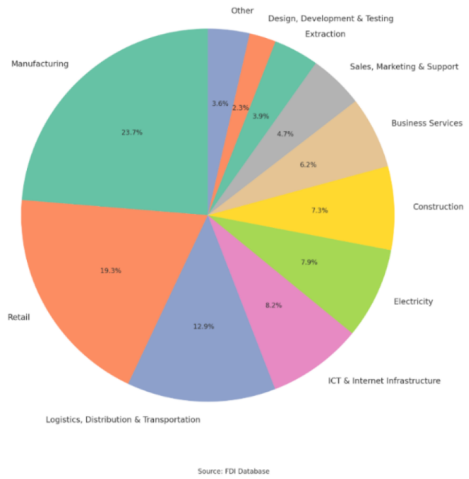

Figure 4.11: Top 10 Industry Activities by Capital Investment (2003-2018)

Figure 4.12: Top 5 Regions by Capital Investment in the Top 5 Industries (2003-2018)

4.2.4 Source Country

Companies from the United States of America undertook the greatest number of investments in Italy, with more than 596 FDI accounting for 22,31% of the total number.

Usa is followed by France (11,94%), Spain (10,67%), Germany (10,41%) and United Kingdom (8,42%). Therefore, more than half of the total number of inward FDI in Italy have been undertaken by only five countries.

The dominance of the United States in Foreign Direct Investment (FDI) in Italy, accounting for 22.31% of total projects, can be attributed to the strategic importance of Italy as a gateway to European markets and a hub for advanced manufacturing.

U.S. multinationals, particularly in sectors like technology, pharmaceuticals, and consumer goods, are attracted by Italy's skilled workforce and established infrastructure. Similarly, France, contributing 11.94% of FDI, benefits from historical and geographical ties, with strong investments in industries like luxury

goods and automotive, further supported by favorable French policies such as tax incentives for innovation. Germany and Spain follow with significant contributions in manufacturing and infrastructure, while the U.K. remains a key player, focusing on financial services and renewable energy, despite the uncertainties brought by Brexit. This pattern reflects a mix of geographical proximity, sectoral synergies, and economic integration within the European Union.

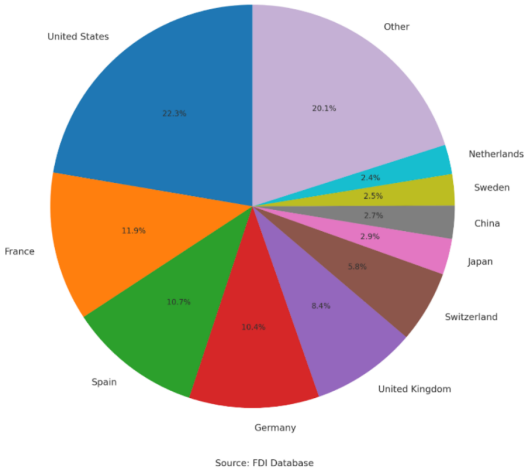

Figure 4.13: Number of Foreign Direct Investment by Country (2003-2018)

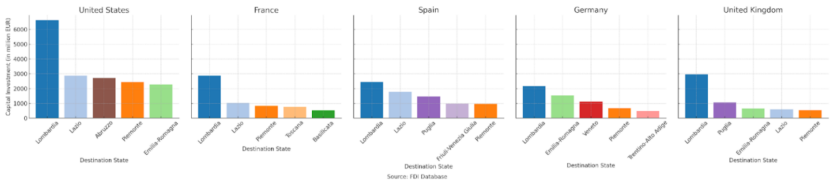

Figure 4.14: Distribution of Foreign Direct Investment by Top 5 Investing Countries in the respective Top 5 Destination Regions

United States of America is again the leading one when considering the amount of capital invested, having invested the 22,49% of the total, followed by Spain (10,34%), France (10,3%), Germany (9,33%) and the United Kingdom (9,22 %). Again, most FDI have been undertaken by these five countries (61,68%).

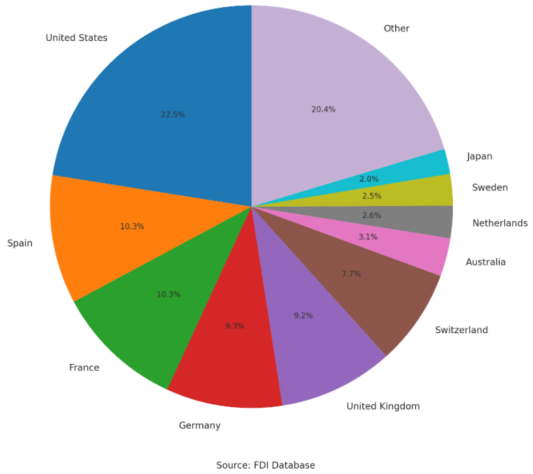

Figure 4.15: Total Capital Invested in Foreign Direct Investment by Countries (2003-2018)

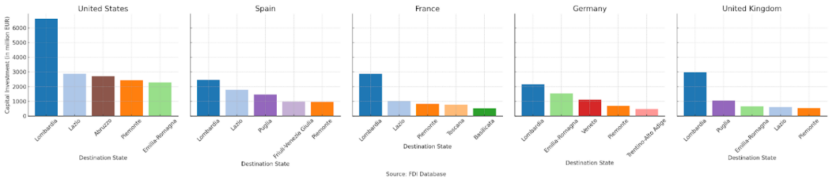

Figure 4.16: Distribution of Capital Investment in Foreign Direct Investment by Top 5 Investing Countries in the respective Top 5 Destination Regions

Chapter 5

Literature review of FDI Determinants

Having outlined the fundamental characteristics of foreign direct investments and the configuration of Italy and its regions, this chapter will highlight the key determinants influencing the investment decisions of parent companies in specific Italian provinces, as well as the motivations that drive a company to invest in Italy.

5.1 Institutional quality

As highlighted by Globerman and Shapiro (2002), institutional quality plays a significant role in attracting Foreign Direct Investment (FDI) to a host country. High-quality institutions reduce transaction costs, protect property rights, and enhance the predictability of economic interactions, making the investment climate more favorable for foreign investors.

In the literature on FDI determinants, institutional quality is considered a crucial factor influencing multinational corporations' investment decisions. Strong institutions provide a stable legal and regulatory framework, reduce corruption, and improve governance, thereby lowering the risks associated with investing in a foreign country (North, 1990).

There is broad consensus on the importance of institutional quality in attracting foreign investors to host countries (Acemoglu, Johnson, & Robinson, 2001; Busse & Hefeker, 2007; Benassy-Quéré, Coupet, & Mayer, 2007). Countries that implement reforms to enhance their institutional frameworks are more likely to attract substantial FDI in both quantitative and qualitative terms.

However, empirical studies investigating its impact produce variable results. Research by Busse and Hefeker (2007) illustrates a strong connection between institutional quality—specifically political stability and the absence of violence—and

FDI inflows. Their findings suggest that multinational enterprises are sensitive to the political and institutional environment when making investment decisions. In contrast, Wheeler and Mody (1992), focusing on U.S. firms, found that some aspects of institutional quality were not statistically significant determinants of FDI, indicating that factors like market size and infrastructure might have a more substantial influence.

Additionally, Daude and Stein (2007), employing a quantitative approach, discovered that better institutional quality positively and significantly impacts the attraction of FDI. They emphasized that not all institutional dimensions have the same effect; for instance, regulatory quality and control of corruption were particularly influential. As hypothesized, most studies on this topic establish a positive relationship between FDI and institutional quality (Mengistu & Adhikary, 2011).

Similarly, Benassy-Quéré et al. (2007) examined how institutional determinants influence FDI flows and found a positive and significant relationship. They argued that institutions matter as much as, if not more than, traditional economic variables in explaining FDI patterns. As emphasized, many studies confirm the importance of institutional quality as a determinant of FDI, although the magnitude of the impact may vary based on the specific context and characteristics of the countries involved.

5.2 Infrastructure endowment

Asiedu (2002) emphasizes that the availability and quality of infrastructure are pivotal in attracting Foreign Direct Investment (FDI) to host countries. Superior infrastructure lowers operational costs, improves efficiency, and enhances connectivity, thereby creating a more favorable investment environment for foreign enterprises.

Within the academic discourse on FDI determinants, infrastructure endowment is regarded as a key factor influencing the investment decisions of multinational corporations. Efficient infrastructure—encompassing transportation systems, telecommunications, and energy supply—facilitates production and distribution activities, which in turn attracts foreign investors seeking to optimize their operations (Wheeler & Mody, 1992).

A broad consensus exists among scholars on the crucial role of infrastructure in drawing foreign investors to host nations (Chakrabarti, 2001; Campos & Kinoshita, 2003; Sekkat & Veganzones-Varoudakis, 2007). Countries that prioritize and invest in infrastructure development are more likely to secure substantial FDI, both in terms of volume and quality.

Nevertheless, empirical studies examining this impact have yielded mixed results. Asiedu's (2002) research demonstrates a strong linkage between infrastructure

development and FDI inflows in Sub-Saharan Africa, indicating that infrastructure is a significant determinant in that region. In contrast, Coughlin, Terza, and Arromdee (1991) found that while infrastructure positively influences FDI within U.S. states, the extent of its impact varies based on the specific type of infrastructure assessed.

Moreover, Noorbakhsh, Paloni, and Youssef (2001), using quantitative analysis, discovered that infrastructure quality has a positive and significant effect on attracting FDI, especially in developing nations. Supporting the initial hypothesis, most studies in this field establish a positive correlation between FDI and infrastructure endowment (Kumar, 2006).

Similarly, Demirhan and Masca (2008) explored the role of infrastructure in influencing FDI inflows and identified a positive and significant relationship. They argued that infrastructure development not only reduces costs but also enhances productivity, making the host country more attractive to foreign investors. Consequently, numerous studies affirm the importance of infrastructure as a determinant of FDI, although the degree of its impact may vary depending on the specific circumstances and attributes of the countries involved.

5.3 Residents with tertiary education

As highlighted by Noorbakhsh, Paloni, and Youssef (2001), residents with tertiary education play a significant role in attracting Foreign Direct Investment (FDI) to a host country. A skilled workforce enhances productivity, fosters innovation, and supports the adoption of advanced technologies, making the investment climate more favorable for foreign investors.

In the literature on FDI determinants, human capital—often measured by the proportion of residents with tertiary education—is considered a crucial factor influencing multinational corporations' investment decisions. A higher level of education among the workforce provides multinational enterprises with the necessary skills and expertise to operate efficiently (Borensztein, De Gregorio, & Lee, 1998).

There is broad consensus on the importance of human capital in attracting foreign investors to host countries (Blomström & Kokko, 2003; Görg & Greenaway, 2004; Narula & Marin, 2003). Countries that invest in higher education and skill development are more likely to attract substantial FDI in both quantitative and qualitative terms.

However, empirical studies investigating its impact produce variable results. Research by Noorbakhsh et al. (2001) illustrates a strong connection between human capital development and FDI inflows in developing countries, suggesting that education is a significant determinant of FDI. In contrast, Cleeve (2008) found that while human capital is important, its impact on FDI inflows to Sub-Saharan

Africa was not statistically significant, possibly due to other overriding factors such as political instability.

Additionally, Suliman and Mollick (2009), employing a quantitative approach, discovered that human capital positively and significantly impacts the attraction of FDI in Sub-Saharan Africa. As hypothesized, most studies on this topic establish a positive relationship between FDI and the level of residents with tertiary education (Görg & Strobl, 2002).

Similarly, Narula and Marin (2003) examined how human capital influences FDI inflows in Latin America and found a positive and significant relationship. They argued that multinational enterprises are more likely to invest in countries where they can access a skilled workforce. As emphasized, many studies confirm the importance of human capital as a determinant of FDI, although the magnitude of the impact may vary based on the specific context and characteristics of the countries involved.

5.4 Geographical distance

Geographical distance between the investing country and the region or province of destination has been widely recognized as a key factor in theoretical and empirical models explaining the flows of Foreign Direct Investment (FDI). The gravity model of international trade, originally proposed by Tinbergen (1962), posits that trade and investment flows between two economic entities are directly proportional to their economic sizes and inversely proportional to the distance separating them. This implies that geographical distance acts as a cost or barrier, reducing the likelihood or intensity of FDI in more distant locations (Head & Ries, 2008).

Distance is not limited to mere physical separation but also encompasses cultural, institutional, linguistic, and regulatory dimensions (Ghemawat, 2001). Cultural distance, for instance, can create barriers in managing foreign operations due to differences in values, social norms, and business practices (Kogut & Singh, 1988). Similarly, institutional distance can influence FDI through differences in legal systems, regulations, and bureaucratic practices (Xu & Shenkar, 2002).

Empirical studies have consistently confirmed the negative effect of geographical distance on FDI. Portes and Rey (2005) highlighted that international financial flows decrease with increasing distance due to higher informational and transaction costs. Likewise, Stein and Daude (2007) found that physical distance significantly reduces FDI, even after controlling for other factors such as market size and economic development levels.

The literature suggests that multinational enterprises tend to prefer closer destinations to minimize costs associated with distance management, such as those

related to communication, coordination, and control (Demirbag et al., 2007). Moreover, geographical proximity facilitates frequent visits and face-to-face interactions, which are crucial for transferring tacit knowledge and building trust relationships (Storper & Venables, 2004).

Distance can also influence the choice of market entry mode. Johanson and Vahlne (1977) proposed the incremental internationalization model, in which firms begin their international activities in psychologically close markets and gradually increase their commitment as they accumulate experience. This model implies that perceived distance in cultural and institutional terms can be as significant as geographical distance.

Furthermore, geographical distance interacts with other determinants of FDI. For example, infrastructural accessibility can mitigate the effect of distance by facilitating the transportation of goods and people (Coughlin & Segev, 2000). Information and communication technology can reduce coordination costs over distance, making distant locations more attractive (Blonigen et al., 2007).

5.5 Population

The population size of a host province has been recognized as a crucial factor in attracting Foreign Direct Investment (FDI). A larger population can represent a significant domestic market, offering multinational enterprises greater opportunities for the sale of goods and services (Markusen & Venables, 1998).

Numerous studies have highlighted a positive correlation between demographic size and FDI inflows. Krugman (1991) argues that economies of scale and the geographical concentration of economic activities are influenced by population size, which in turn attracts foreign investments. Similarly, Blonigen and Piger (2014) used Bayesian methods to demonstrate that market size is one of the most robust determinants of FDI.

Dunning's eclectic paradigm (1993) emphasizes the importance of location advantages, including the size of the local market, in multinational enterprises' decisions to invest in a particular place. A large population not only represents potential consumers but also a source of diverse and potentially skilled labor (Noorbakhsh, Paloni & Youssef, 2001).

Furthermore, Raff and Ryan (2008) analyzed how firms are attracted to regions with large labor markets, which facilitate access to specific skills and reduce recruitment costs. This is particularly relevant for investments in the manufacturing sector and advanced services.

It is important to note that not only the size but also the growth of the population influences FDI. A growing population can indicate economic dynamism and a future increase in demand, factors that can be very attractive to foreign investors (Walsh

& Yu, 2010).

5.6 Gross Domestic Product (GDP)

The Gross Domestic Product (GDP) of a destination province plays a pivotal role in attracting Foreign Direct Investment (FDI). GDP is a primary indicator of a region's economic size and market potential, factors that multinational enterprises (MNEs) heavily consider when making investment decisions (Chakrabarti, 2001). A higher GDP often signifies a larger consumer base, greater purchasing power, and a more dynamic economy—all of which are attractive to foreign investors seeking profitable opportunities.

Empirical studies have consistently demonstrated a positive correlation between the GDP of a host region and the inflow of FDI. Blonigen and Piger (2014) utilized Bayesian statistical methods to identify GDP as one of the most robust determinants of FDI across countries. Their findings suggest that regions with higher GDP levels are more likely to attract foreign investors due to the promise of higher returns stemming from extensive market opportunities.

Theoretical frameworks also underscore the significance of GDP in FDI attraction. Dunning's eclectic paradigm emphasizes location-specific advantages, where market size—proxied by GDP—is a critical factor (Dunning, 1993). MNEs are inclined to invest in regions where they can exploit economies of scale and capitalize on substantial demand for their products or services (Markusen & Venables, 1998). High GDP regions provide a conducive environment for such strategic objectives.

Moreover, the GDP growth rate of a province is an essential indicator of economic vitality and future potential. Bevan and Estrin (2004) highlighted that provinces exhibiting robust GDP growth rates tend to attract more FDI, as investors are drawn to the prospects of sustained economic expansion and the associated opportunities for profit maximization. Rapid economic growth often signals improvements in productivity, technological advancements, and a favorable business climate—all factors that enhance the attractiveness of a location for FDI (Walsh & Yu, 2010).

5.7 Number of patents

The number of patents in a province is often used as an indicator of the region's innovative and technological capabilities. This capacity can significantly attract Foreign Direct Investment (FDI), as multinational enterprises (MNEs) are drawn to environments that foster innovation and technological development. Dunning (1998) notes that MNEs tend to invest in locations offering competitive advantages linked to knowledge and innovation—key elements for sustaining their global competitiveness.

A high number of patents signifies not only intense research and development (R&D) activity but also the presence of an ecosystem conducive to knowledge diffusion. Jaffe, Trajtenberg, and Henderson (1993) highlight how the geographical concentration of patenting activity can facilitate technological spillovers, making such regions more attractive to foreign investors. Moreover, Cantwell and Mudambi (2005) argue that multinationals seek to locate in innovative clusters to access specialized competencies and advanced knowledge networks.

Empirical studies have consistently found a positive correlation between a region's patenting activity and the influx of FDI. Frost (2001) demonstrates that foreign subsidiaries of MNEs tend to generate more innovations when located in regions with high patenting activity, suggesting these areas offer greater opportunities for learning and innovation. Similarly, Kinoshita (2001) finds that a country's innovative capacity, measured through patents, is a determining factor in attracting FDI, particularly in high-tech sectors.

5.8 Import and export

The value of imports and exports in a province significantly influences Foreign Direct Investment (FDI) by reflecting the region's economic openness, market potential, and integration into global trade networks. High export levels often indicate strong production capabilities and competitiveness in international markets, attracting efficiency-seeking FDI that aims to capitalize on these strengths (Helpman, Melitz, & Yeaple, 2004). Export-oriented provinces appeal to multinational enterprises (MNEs) looking to leverage established supply chains and local expertise to produce goods for international markets. This aligns with the concept of export-platform FDI, where firms invest in a location to serve external markets rather than the domestic one (Ekholm, Forslid, & Markusen, 2007).

Conversely, substantial import volumes may signal robust domestic demand and potential market gaps that foreign firms can fill through local production. High import values can attract market-seeking FDI as companies establish a local presence to better serve the market and circumvent trade barriers (Blonigen, 2001). By producing within the province, firms can reduce transportation costs and avoid tariffs, making local investment a more attractive alternative to exporting.

Furthermore, the overall trade openness of a province, characterized by both import and export activities, is a critical determinant of FDI inflows. Asiedu (2002) finds that trade openness positively affects FDI, suggesting that provinces actively engaged in international trade are more attractive to foreign investors due to favorable policies, infrastructure, and a business environment conducive to global operations. Sun, Tong, and Yu (2002) support this by demonstrating that regions with higher trade volumes tend to attract more FDI, as they offer greater

opportunities for business growth and integration into global markets.

5.9 Agglomeration

Agglomeration economies significantly influence Foreign Direct Investment (FDI) by creating an environment that fosters productivity, innovation, and competitive advantage. When firms cluster together in a particular area, they benefit from shared resources, specialized labor pools, and knowledge spillovers, making the region more attractive to foreign investors.

Marshall (1890) introduced the concept of agglomeration economies, emphasizing how the proximity of firms leads to external economies of scale. This idea laid the groundwork for understanding why businesses tend to concentrate geographically. Building upon this, Krugman (1991) developed the New Economic Geography theory, highlighting that increasing returns and transportation costs contribute to the spatial concentration of economic activities.

Empirical studies have reinforced the importance of agglomeration in attracting FDI. Wheeler and Mody (1992) analyzed the international investment decisions of U.S. firms and found that agglomeration economies play a crucial role in location choice. Their research suggests that firms are drawn to regions where there is already a high density of similar businesses, due to the advantages of established infrastructure and networks.

Head, Ries, and Swenson (1995) examined Japanese manufacturing investments in the United States and discovered that foreign investors often prefer locations with a higher concentration of firms from their own country. This phenomenon, known as "country-specific agglomeration," indicates that cultural and operational similarities enhance a region's appeal for foreign investors.

Coughlin, Terza, and Arromdee (1991) investigated the determinants of FDI within the United States and concluded that state characteristics—including measures of existing manufacturing activity—positively affect FDI inflows. Their findings support the notion that firm density serves as a proxy for favorable business conditions and market potential, which are key factors in investment decisions.

In a European context, Devereux and Griffith (1998) explored how taxes influence the production location choices of U.S. multinationals but also noted the significant impact of agglomeration factors. They observed that firms are more inclined to invest in regions with a high density of economic activity, even when tax incentives vary, underscoring the strong pull of agglomeration economies.

Guimarães, Figueiredo, and Woodward (2000) focused on FDI locations in Portugal and found that agglomeration economies, measured by firm density, are a critical determinant of foreign investment. Their research indicates that regions

with established industrial clusters are more likely to attract additional FDI due to the cumulative benefits that these clusters provide.

Knowledge spillovers associated with agglomeration also play a vital role in attracting FDI. Audretsch and Feldman (1996) highlighted that innovative activities tend to cluster geographically, and foreign investors are keen to tap into these knowledge-rich environments.

5.10 Wages

Wage levels in a region play a crucial role in attracting Foreign Direct Investment (FDI), as they directly impact production costs and profitability for multinational enterprises (MNEs). The decision to invest in a particular province or region is often influenced by the balance between labor costs and the quality of the workforce. Understanding the relationship between wages and FDI is essential for policymakers aiming to enhance a region's attractiveness to foreign investors.

Early studies by Root and Ahmed (1979) identified labor costs as a significant determinant of FDI in manufacturing sectors. They argued that lower wage rates can attract cost-sensitive investments, particularly in labor-intensive industries. This perspective aligns with the cost-minimization motive of MNEs seeking to enhance their competitive advantage through reduced production expenses.

Cheng and Kwan (2000) studied FDI in China and found that regions with lower wages attracted more foreign investment, particularly in labor-intensive industries. However, they also noted that the effect of wages diminishes when regions offer superior infrastructure and market potential. This implies that while wages are important, they can be offset by other favorable conditions that enhance productivity and profitability.

In contrast, studies have shown that higher wages do not necessarily deter FDI if they are associated with higher labor productivity and skill levels. Noorbakhsh, Paloni, and Youssef (2001) emphasized the role of human capital in attracting FDI. Their research indicated that MNEs are willing to incur higher labor costs if they can access a skilled and efficient workforce, which can enhance innovation and operational efficiency.

Helpman, Melitz, and Yeaple (2004) introduced a model considering firms with heterogeneous productivity levels. They argued that more productive firms engage in FDI despite higher wages because they can better absorb the costs due to their efficiency advantages. This suggests that regions with higher wages but also higher productivity can still be attractive destinations for FDI.

Devereux and Griffith (1998) examined the impact of taxes and wages on the location choices of U.S. multinationals in Europe. They found that while tax incentives are significant, wage levels also influence investment decisions. However,

the effect of wages varied across industries, being more pronounced in sectors where labor costs constitute a larger share of total production costs.

Blonigen, Davies, and Head (2003) explored the interaction between labor market conditions and FDI. Their research indicated that rigid labor markets with high wages and strong labor protections might deter investment. Conversely, flexible labor markets with competitive wages can enhance a region's attractiveness to foreign investors.

5.11 Unemployment rate

The unemployment rate within a province significantly influences Foreign Direct Investment (FDI) as it reflects both labor availability and the economic health of the region, affecting multinational enterprises' (MNEs) investment decisions (Coughlin, Terza, & Arromdee, 1991).

High unemployment may attract FDI by indicating an abundant labor supply and potentially lower wage costs, appealing to cost-sensitive investors (Root & Ahmed, 1979). However, elevated unemployment can also signal economic instability and reduced consumer purchasing power, potentially deterring market-seeking FDI due to concerns over limited market potential and social unrest (Dunning, 1993). The skill level of the unemployed workforce is equally crucial; regions with high unemployment among skilled workers may be more attractive to technology-intensive firms seeking specialized human capital (Noorbakhsh, Paloni, & Youssef, 2001). Additionally, Bellak, Leibrecht, and Riedl (2008) suggest that while labor availability is important, institutional factors and economic stability significantly mediate the relationship between unemployment and FDI inflows.

Therefore, the impact of unemployment rates on FDI is multifaceted, requiring a nuanced understanding of labor market dynamics, workforce quality, and the broader economic context to effectively assess their influence on investment decisions.

5.12 Immigration and emigration

The rates of immigration and emigration within a province significantly influence Foreign Direct Investment (FDI) by shaping labor market dynamics, human capital availability, and international networks. Immigration enhances a region's human capital by introducing diverse skills and fostering innovation, which attracts multinational enterprises seeking competitive advantages (Peri, 2012). Immigrants often establish migrant networks that reduce transaction costs and provide valuable market insights for foreign investors (Javorcik et al., 2011). These networks facilitate information flow, trust-building, and ease of entry into new markets, making

regions with high immigration rates more attractive to FDI (Kugler & Rapoport, 2007). Additionally, cultural diversity resulting from immigration can stimulate creativity and problem-solving within firms, further enhancing their competitiveness (Ottaviano & Peri, 2006).

Conversely, emigration can lead to a depletion of skilled labor, potentially deterring FDI due to reduced productivity and a smaller talent pool (Docquier & Rapoport, 2012). The loss of human capital, particularly among the highly educated, may weaken the region's innovation capacity and diminish its appeal to foreign investors who rely on skilled labor (Beine, Docquier, & Rapoport, 2008). However, emigrants form diaspora networks that can facilitate FDI back into their home regions by leveraging transnational connections and fostering trust (Leblang, 2010). These diaspora networks act as conduits for capital flows, knowledge transfer, and business opportunities, potentially offsetting the negative effects of brain drain (Riddle, Hrivnak, & Nielsen, 2010). Engaging with the diaspora can lead to increased investment and economic development, as emigrants may have a unique interest in contributing to their region of origin (Agunias & Newland, 2012).

Thus, both immigration and emigration contribute to the formation of international networks that attract FDI through enhanced connectivity, although they differ in their impact on local labor markets and human capital availability.

Promoting policies that retain skilled workers and create an inclusive environment for immigrants can maximize the benefits of cultural diversity, enhancing innovation and productivity (Alesina & La Ferrara, 2005). Additionally, strategies that engage diaspora communities can harness their potential for investment, entrepreneurship, and knowledge transfer, further attracting FDI (Gamlen, 2014).

5.13 Presence of a parent company

The presence of a parent company in a region significantly influences Foreign Direct Investment (FDI) by serving as a catalyst for additional investment through network effects, knowledge transfer, and reduced entry barriers. According to Dunning's eclectic paradigm, ownership advantages—such as proprietary technology and managerial expertise—are more effectively utilized when a parent company has an established presence, facilitating the transfer of intangible assets and enhancing competitive positioning (Dunning, 1993). Helpman, Melitz, and Yeaple (2004) indicate that highly productive firms are more likely to engage in horizontal FDI, replicating production in markets where they already operate to circumvent trade costs and exploit economies of scale.

The network theory of internationalization suggests that existing corporate networks reduce uncertainties in foreign investments. Johanson and Vahlne (2009) argue that a parent company's presence provides relational assets like local market

knowledge and trusted partnerships, lowering entry barriers for new investors. Additionally, the internalization theory posits that firms prefer to internalize cross-border activities to mitigate market imperfections, with an existing parent company streamlining operations and reducing transaction costs (Buckley & Casson, 2009).

Furthermore, the presence of a reputable parent company can signal a favorable investment environment, instilling confidence in other foreign investors about market viability (Kim & Song, 2017). Agglomeration economies also play a role; Head, Ries, and Swenson (1995) find that firms are attracted to regions where companies from their home country are established, benefiting from shared networks and knowledge spillovers.

Understanding the impact of a parent company's presence is essential for attracting FDI, as it enhances ownership advantages, facilitates networks, reduces costs, and signals a conducive investment climate, all of which contribute to economic growth.

Chapter 6

Conditional Logit Models

At the core of economics is the study of how individuals make decisions and the motivations that influence those choices.

Since econometrics cannot directly observe every factor that affects human behavior, it relies on statistical assumptions about individual decision-making, using data collected from population samples (McFadden, 1973). In the field of location-based decision studies, the conditional logit model—a discrete economic model introduced by McFadden (1973)—is particularly prominent.

Developed by McFadden (1973), the conditional logit model resembles logistic regression but uniquely incorporates the characteristics of the available alternatives rather than focusing on individual attributes.

Based on the principles of random utility maximization, this model has become a valuable tool for analyzing firms' decisions regarding location (Guimarães et al., 2003). It effectively assesses how the various factors discussed earlier influence multinational enterprises in choosing to invest in certain subregions over others.

The conditional logit model serves as a statistical method for examining the choices individuals make when presented with multiple options. Its applications span various fields, including economics, transportation, and marketing. The fundamental premise is that individuals evaluate each alternative based on specific attributes and select the one that maximizes their utility. A key feature of this model is its ability to account for the correlation of unobservable factors in decisions made by the same individual.

This capability makes it especially useful for analyzing discrete choices—such as transportation modes, product preferences, or location decisions—providing deep insights into the dynamics of the decision-making process.

When it comes to choosing an occupation, which is a critical decision at a given time involving the selection of an investment option from various possibilities, the choice depends on numerous factors like personal interests, regional characteristics, and economic considerations. The conditional logit model proves to be an insightful

tool for exploring the complexities of this decision-making process.

The model outlines the probability of selecting a particular alternative "j" from a set of mutually exclusive options, based on a specific set of attributes. It expresses these choice probabilities using a specialized version of the logit function, offering a structured framework that accommodates the interplay between attributes and choices.

Here's the equation for the conditional logit model:

$$P(y_{ij} = 1 \mid X_i) = \frac{e^{X_{ij}\beta}}{\sum_{k=1}^{J} e^{X_{ik}\beta}}$$

In this equation:

- $P(y_{ij} = 1 \mid X_i)$ is the probability that individual "i" chooses alternative "j".
- X_{ij} represents the vector of attributes or characteristics of alternative "j" for individual "i".
- β is a vector of parameters to be estimated, representing the effect of the attributes on the choice probabilities.
- J is the total number of alternatives in the choice set.

The numerator of the equation represents the probability of choosing alternative "j" given the attributes, and the denominator represents the sum of probabilities for all available alternatives in the choice set. The choice with the highest probability is the one that the individual is most likely to select.

Chapter 7

Model and analysis

Within the scope of this thesis, an examination of the economic theories concerning Foreign Direct Investment, along with an analysis of empirical research on the factors influencing FDI, has been conducted.

Based on the literature regarding the determinants of foreign direct investment and on the econometric model regarding the conditional logic model, in the first part of this research, data regarding the independent variables of Italy were searched from the national sites for statistics such as the Istituto nazionale di statistica (ISTAT) and Eurostat.

The initial section of the chapter outlines the database used in the model, covering the dependent variable and detailing the database filters applied. It also introduces the independent variables chosen for the model. This section then discusses the utilization of the database in the Stata software, elucidating the formatting procedures to align it with the model's requirements.

All data were collected at a detail of NUTS 3, in Italy, it represents the most detailed level and corresponds to provinces or metropolitan cities. The number of NUTS 3 units in Italy varies according to administrative changes; currently, there are 107 NUTS 3 territories, divided into traditional provinces, metropolitan cities, and equivalent entities, such as the autonomous provinces of Trento and Bolzano.

After collecting the data, these were used together with data on foreign direct investment in Italy to see then what was the choice of firms outside the country in locating investments.

The subsequent part of the chapter engages in a descriptive analysis of the database variables. It comprehensively examines the values in the database, emphasizing the distinct characteristics for each province. It offers a more detailed analysis of the dependent variable and eventually explores the correlations among the independent variables.

7.1 Description of the Foreign Direct Investments dataset

The first step in constructing the econometric model is the collection and preprocessing of data. This step ensures that the data fed into the model is free of errors, enabling the generation of reliable and consistent results. This chapter provides an overview of each variable selected for the model. It begins by focusing on the dependent variable, which relates to foreign investment in each Italian province. Following this, attention shifts to the processing of data used for the independent variables.

The choice of these variables is grounded in determinants identified in the existing literature, allowing the model to incorporate all significant factors influencing FDI inflows and identifying those that could affect investment decisions in specific Italian provinces. Previous research has often faced difficulties in gathering the necessary data for such models. In this study, certain adjustments and approximations were required for specific data, and these modifications are also detailed in this section.

7.2 Dependent variable

The central variable within the model concerns the selection of foreign investments across Italian provinces. The dataset employed for this analysis is the FDI Markets database, curated by the Financial Times, which provides firm-level data on greenfield FDI projects announced since 2003. For the purposes of this study, the analysis has been restricted to investments spanning the period from 2003 to 2015.

The dataset includes comprehensive information for each investment, such as the announcement date, the investing and parent company, the origin of the investment (country, state, and province), the destination of the investment (country, state, and province), the industry classification (activity, sector, and sub-sector), the capital investment amount (actual or estimated), the estimated number of jobs created, and the project type (e.g., new, expansion, or co-location).

To refine the dataset for the analysis, several adjustments were made. Specifically, entries where provincial information was listed as "Not Specified" were excluded, as they lacked the necessary granularity for the model's analytical framework. Furthermore, only investments categorized as "NEW" in the "Project Type" field were included.

This approach ensures that the dataset accurately reflects new investments from multinational enterprises, thereby enabling a robust analysis of the determinants underlying such investment decisions in a manner that maintains academic rigor and originality.

7.3 Independent variables

After identifying the dependent variable, attention turns to the regressors. Regressors should be chosen in a consistent way with both the literature and the available data.

The regressors are endogenous and country-specific and includes the Market-specific factors include market size, attractiveness indices of political stability, Agglomeration and others.

- **id**: A unique identifier for each investment. This variable is used to uniquely distinguish each observation in the dataset.
- **choice**: A binary variable indicating the province selected for the investment. A value of 1 represents a positive choice, while 0 indicates non-selection. It is fundamental for analyzing territorial preferences.
- **prov_txt**: The name of the province in text format. Useful for categorizing and conducting qualitative analyses at the provincial level.
- **reg_txt**: The name of the region in text format. Similar to `prov_txt`, it allows for data aggregation and analysis of results at the regional level.
- **border_r**: A binary variable that takes the value 1 if the province is located in a region bordering another nation, and 0 otherwise. This element helps to evaluate the impact of geographic location on foreign investments.
- **mezzogiorno**: A binary variable that takes the value 1 for provinces belonging to the Italian Mezzogiorno, the eight southern regions. It is useful for analyzing the North-South divide in terms of investment attraction.
- **rmmi**: A binary dummy variable that identifies the metropolitan areas of Rome and Milan, the main economic centers of Italy. It serves to highlight the concentration of investments in strategic urban areas that are not the capital and the main economic center of Italy.
- **fdi_stock_pair**: Bilateral stock of foreign direct investments (FDI) prior to 2002. It serves to highlight pre-existing flows.
- **ln_dist**: Natural logarithm of the distance between the province and a country, used to analyze the effect of geographic distance on economic and investment flows.
- **idi2**: Infrastructure Endowment Index, which assesses the quality and availability of infrastructures in the provinces. Higher values indicate greater infrastructural development.

- **inst_quality**: Quality of institutions at the provincial level. Measures factors such as transparency, administrative efficiency, and political stability, which influence attractiveness to foreign investors.
- **ln_pat**: Logarithm of the number of patents registered in the province, an indicator of the local capacity for innovation and technology.
- **ter_share**: Percentage of the population with tertiary education, normalized. Represents the level of qualified human capital available in a province.
- **ln_export**: Logarithm of exports from the province to the investing country. Indicates the economic openness of the province and its international trade ties.
- **ln_import**: Logarithm of imports into the province from the investing country. Complementary to `ln_export`, measures the incoming trade flow.
- **firms_x_kmq**: Density of firms per square kilometer at the provincial level. Provides an indicator of economic density and potential industrial clustering.
- **manuf_conc**: Measure of manufacturing concentration. This variable reflects the economic specialization of a province in the manufacturing sector.
- **aggl_s_2d_count**: Industrial agglomeration index, calculated at the two-digit sector level. Measures the geographic concentration of similar economic activities.
- **herf_2d_count**: The sectoral diversity index. A low value indicates greater economic diversification, while a high value reflects sectoral concentration.
- **lnwage2_1**: Logarithm of the regional average wage, representing labor costs.
- **ur_prov2**: Unemployment rate at the provincial level, a critical indicator for assessing local economic conditions and the availability of labor.
- **coloc_parent**: Binary dummy indicating the presence of a co-location of parent companies.
- **ln_gdp_d**: Logarithm of provincial GDP. A proxy for the size of the local market and its economic potential.
- **ln_immi1**: Logarithm of the number of immigrants in a province, indicative of the availability of labor and cultural diversity.
- **ln_emi2_1**: Logarithm of the number of emigrants from a province, reflecting labor mobility dynamics.

- **ln_immitot1**: Logarithm of the total number of immigrants, a broader indicator of the ability to attract new population.

- **ln_emitot1**: Logarithm of the total number of emigrants, indicating emigration trends from the province.

Table 7.1: FDI Variables and Sources Overview

Macro categories	**Variables**	**Model Variable**	**Source**
FDI Characteristics	Location choice; Parent co-location; FDI characteristics	id prov_txt; reg_txt; mezzogiorno; rmmi; coloc_parent; choice	fDi Markets
Demographic Factors	Log immigrants; Log multilateral immigrants; Log emigrants; Log multilateral emigrants; Log provincial GDP	ln_immi1; ln_emi2_1; ln_gdp_d; ln_immitot1; ln_emitot1	ISTAT; Istituto Tagliacarne
Institutional Quality	Institutional quality	inst_quality	Istituto Tagliacarne
Infrastructure	Infrastructure endowment	idi2	Istituto Tagliacarne
Education	Residents with tertiary education	ter_share	ISTAT – 2011 Census
Innovation	Log patent count	ln_pat	Eurostat
Labor Market	Unemployment rate; Log average wage (region)	ur_prove2; lnwage2_1	ISTAT; WHIP
Industrial Structure	Firm density; Sectoral diversity; Manufacturing concentration; Agglomeration (sector)	firms_x_kmq; manuf_conc; aggl_s_2d_count; herf_2d_count	AIDA – Bureau van Dijk
Trade	Log imports; Log exports; FDI History	ln_export; ln_import; fdi_stock_pair	REPRINT - ICE; ISTAT
Geographical Factors	Log distance; Common border	ln_dist border_r	ISTAT; External databases

7.4 Results on all the dataset

Conditional (fixed-effects) logistic regression

Number of obs	=	111,692	
LR chi2(22)	=	4581.36	
Prob > chi2	=	0.0000	
Log likelihood = -2825.1093	Pseudo R2	=	0.4478

choice	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
ln_dist	-.3949378	.2052057	-1.92	0.054	-.7971336	.007258
border_r	.2395925	.1453906	1.65	0.099	-.0453679	.5245528
ln_gdp_d	.9890414	.2497921	3.96	0.000	.4994578	1.478625
ln_pat	.0880194	.1178498	0.75	0.455	-.1429619	.3190008
idi2	.0013316	.0007715	1.73	0.084	-.0001805	.0028437
inst_quality	.4714545	.5816724	0.81	0.418	-.6686024	1.611511
lnwage2_1	-1.350782	1.223344	-1.10	0.270	-3.748492	1.046929
ur_prov2	-.0129773	.0266765	-0.49	0.627	-.0652622	.0393077
aggl_s_2d_count	.2246632	.0227109	9.89	0.000	.1801507	.2691757
herf_2d_count	.0969686	.0681508	1.42	0.155	-.0366044	.2305416
ter_share	.0889788	.0748838	1.19	0.235	-.0577908	.2357485
ln_immi1	.1971117	.0688311	2.86	0.004	.0622051	.3320182
ln_emi2_1	.121392	.0611101	1.99	0.047	.0016185	.2411655
ln_immitot1	-.3492466	.181129	-1.93	0.054	-.7042529	.0057598
ln_emitot1	-.1873943	.0929666	-2.02	0.044	-.3696055	-.0051832
fdi_stock_pair	.0073626	.0015047	4.89	0.000	.0044135	.0103117
ln_import	.1512285	.0497568	3.04	0.002	.0537069	.24875
ln_export	.0834781	.0616845	1.35	0.176	-.0374214	.2043776
coloc_parent	3.857305	.1995006	19.33	0.000	3.466291	4.248319
rmmi	.2514278	.3232647	0.78	0.437	-.3821593	.885015
firms_x_kmq	-.0003571	.0027707	-0.13	0.897	-.0057876	.0050734
manuf_conc	-.4436586	.2248344	-1.97	0.048	-.884326	-.0029912

Figure 7.1: Output of the conditional logit model on all the dataset

The transaction used to evaluate the impact of the independent variables on the choice of investment is `clogit` in Stata. The number of observations on which the model is based, and the choice of investment is 111,692. In this output, all the coefficients, standard errors, confidence intervals at the 95% level, and p-values are shown.

- **LR chi2(22) = 4581.36, p-value = 0.000**: The LR Chi2 test indicates that the model is highly significant at a 5% confidence level. At least one

independent variable significantly influences the choice of the region for investment.

- **ln_dist**: The coefficient is negative and marginally significant (p = 0.054). An increase in the distance between the origin and destination locations reduces the probability of selecting the destination, suggesting that distance represents a barrier to investment.
- **border_r**: The coefficient is positive but not significantly different from zero at the 5% level (p = 0.099). This suggests that sharing a border might have a marginal positive influence on the choice of the region, although the effect is not particularly robust.
- **ln_gdp_d**: The coefficient is positive and highly significant (p = 0.000). This indicates that a higher GDP level in the destination region is strongly associated with an increased probability of being selected as an investment destination.
- **ln_pat**: The coefficient is not statistically significant (p = 0.455), suggesting that the number of patents does not appear to have a relevant influence on the choice of the destination.
- **idi2**: The coefficient is positive and marginally significant (p = 0.084). This suggests a potential positive effect of variables related to the development index.
- **inst_quality**: Although the coefficient is positive, it is not statistically significant (p = 0.411). Institutional quality might not directly influence the investor's choice.
- **lnwage2_1**: The coefficient is negative and marginally significant (p = 0.081). Higher wage levels seem to reduce the attractiveness of the region for investors, likely due to higher labor costs.
- **aggl_s_2d_count**: The coefficient is positive and highly significant (p = 0.000). This suggests that a higher level of economic agglomeration in the region is associated with an increased likelihood of being chosen for investment.
- **herf_2d_count**: The coefficient is positive but not significant at the 5% level (p = 0.126). Sectoral concentration does not seem to be a determining factor.
- **ln_immi1**: The coefficient is negative and significant (p = 0.004). A higher level of immigration might be associated with a reduced likelihood of selecting the region.

- **ln_import and ln_export**: Both have non-significant coefficients. This indicates that trade flows (import/export) do not appear to have a direct impact on the choice of the destination.

- **coloc_parent**: The coefficient is highly significant (p = 0.000) and positive, indicating that co-location with the parent company is a crucial factor in the choice of the region.

- **manuf_conc**: The coefficient is negative and marginally significant (p = 0.048). A higher manufacturing concentration might reduce the attractiveness of the region for new investments, possibly due to sector saturation.

7.5 Binary variable "mezzogiorno"

We now introduce the dummy variable "mezzogiorno" to distinguish investments made in the provinces of the eight southern Italian regions. This binary variable will take the value of 1 if an investment occurred in a province within one of these regions, and 0 otherwise.

From the provided output, significant differences emerge between the provinces of the Mezzogiorno (mezzogiorno = 1) and those of the rest of Italy (mezzogiorno = 0). In particular, the probability of investment, represented by the variable "choice," is notably lower in the Mezzogiorno, with an average of 0.22% compared to 1.34% in the rest of the country.

The logarithmic distance "ln_dist" is slightly higher in the Mezzogiorno (mean of 7.97) than in the rest of Italy (mean of 7.68), suggesting that investments tend to come from companies based in more distant countries. The variable "border_r" is zero in the Mezzogiorno, indicating that none of the southern provinces border foreign regions, unlike the rest of Italy where 55% of observations involve provinces belonging to border regions.

Key economic indicators such as per capita GDP ("ln_gdp_d") and the number of patents ("ln_pat") are lower in the Mezzogiorno. The mean logarithmic GDP is 8.68 in the Mezzogiorno versus 9.23 in the rest of Italy, while the mean logarithmic patents are 1.52 in the South compared to 3.47 in the North and Center. This reflects lower economic and innovative activity in the southern regions.

Institutional quality ("inst_quality") is significantly lower in the Mezzogiorno, with a mean of 0.31 compared to 0.71 in the rest of the country. This could indicate issues related to administrative efficiency or local governance that negatively affect investment attractiveness.

The provincial unemployment rate ("ur_prov2") is much higher in the Mezzogiorno, with a mean of 13.16 compared to 5.38 in the rest of Italy, highlighting the labor market challenges in the South. Additionally, manufacturing concentration

-> mezzogiorno = 0

Variable	Obs	Mean	Std. Dev.	Min	Max
choice	77,605	.0134399	.1151495	0	1
ln_dist	77,605	7.679481	1.154652	4.544902	9.839833
border_r	79,143	.5507246	.4974235	0	1
ln_gdp_d	77,605	9.229738	.7987369	7.752982	11.86837
ln_pat	77,605	3.469973	1.193777	0	6.402398
idi2	76,849	109.1606	75.06266	36.98918	522.2096
inst_quality	76,849	.7142175	.1150729	.424876	1
lnwage2_1	77,605	9.81066	.0832213	9.548754	10.00267
ur_prov2	77,605	5.38312	2.256051	1.855102	16.67884
aggl_s_2d_~t	75,004	1.068653	.9103027	.0271054	25.04947
herf_2d_co~t	77,605	-.0718754	.9306948	-4.522207	1.632183
ter_share	77,605	.1882729	1.007482	-1.251062	3.468185
ln_immi1	77,000	4.473332	1.592371	0	11.72483
ln_emi2_1	77,605	5.651696	2.162391	0	9.787965
ln_immitot1	78,453	9.986955	1.735867	0	13.16265
ln_emitot1	79,143	9.456875	1.667504	0	12.62972
fdi_stock_~r	77,605	2.749063	10.03961	0	125
ln_import	77,093	17.51048	2.104672	3.912023	23.67967
ln_export	77,400	18.27975	1.757948	7.147559	22.32645
coloc_parent	77,605	.0031699	.0562129	0	1
rmmi	79,143	.0289855	.1677668	0	1
firms_x_kmq	77,605	6.152215	12.77375	.3471436	123.9728
manuf_conc	79,143	1.192377	.3814503	.3501811	2.132435

Figure 7.2: Output with mezzogiorno = 0

("manuf_conc") is lower in the Mezzogiorno, suggesting a less developed industrial base.

Our objective is to build a model in which the statistical significance of the "mezzogiorno" dummy variable progressively diminishes as we introduce additional explanatory variables. By grouping the variables into different domains—such as geographical factors, economic indicators, institutional quality, labor market conditions, agglomeration effects, and industrial concentration—we apply the conditional logistic regression (`clogit`) incrementally. This step-by-step approach allows us to identify the specific factors that account for regional disparities in investment decisions, rather than attributing these differences solely to the regional dummy variable.

-> mezzogiorno = 1

Variable	Obs	Mean	Std. Dev.	Min	Max
choice	45,286	.0021861	.0467052	0	1
ln_dist	45,286	7.967066	.9166292	4.778302	9.833294
border_r	47,027	0	0	0	0
ln_gdp_d	45,286	8.682682	.8011408	6.663897	10.8963
ln_pat	45,286	1.522933	1.027748	0	4.202302
idi2	44,908	70.73678	30.96025	9.218506	149.2899
inst_quality	44,908	.3110763	.1511775	0	.630233
lnwage2_1	45,286	9.603378	.0857913	9.41007	9.830856
ur_prov2	44,838	13.16363	3.983404	5.291168	28.82961
aggl_s_2d_~t	42,494	.9669525	1.193656	.0185035	70.50266
herf_2d_co~t	45,286	.2254392	.9865477	-3.806008	1.83231
ter_share	45,286	-.2654031	.8941493	-2.434716	1.841544
ln_immi1	44,945	3.514522	1.585175	0	9.600353
ln_emi2_1	45,286	6.041559	3.027952	0	11.01702
ln_immitot1	46,617	8.423433	2.150296	0	11.58796
ln_emitot1	47,027	9.739421	3.026376	0	11.95207
fdi_stock_~r	45,286	.3835181	.9392624	0	6
ln_import	43,119	15.66242	2.448161	1.94591	22.1394
ln_export	43,131	15.99359	2.512341	1.609438	21.44103
coloc_parent	45,286	.0006625	.02573	0	1
rmmi	47,027	0	0	0	0
firms_x_kmq	45,286	2.472515	5.368707	.1838724	45.10942
manuf_conc	47,027	.8654578	.2438522	.4814827	1.763994

Figure 7.3: Output with mezzogiorno = 1

7.5.1 Geographical Variables

- **ln_dist**
- **border_r**

`ln_dist` (Logarithm of Distance)

The negative and statistically significant coefficient indicates that the probability of an investment decreases as the distance increases. Specifically, for a one-unit increase in the logarithm of distance, the log-odds of an investment occurring decrease by approximately 0.831 units, holding other variables constant. This finding aligns with the notion that geographical proximity facilitates investment due to lower transportation costs, ease of communication, and logistical convenience.

```
Conditional (fixed-effects) logistic regression

                                                Number of obs     =    122,360
                                                LR chi2(3)        =     596.43
                                                Prob > chi2       =     0.0000
Log likelihood = -5039.3888                     Pseudo R2         =     0.0559

------------------------------------------------------------------------------
      choice |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
     ln_dist |  -.8309198   .1744146    -4.76   0.000    -1.172766   -.4890734
    border_r |   .5013107   .0720457     6.96   0.000     .3601037    .6425177
mezzogiorno |  -1.277451   .1181179   -10.82   0.000    -1.508957   -1.045944
------------------------------------------------------------------------------
```

Figure 7.4: Output with Geographical and Basic Variables

`border_r` (Border Region Indicator)

The positive and statistically significant coefficient suggests that provinces located in border regions have higher odds of receiving investments. Being in a border region increases the log-odds of an investment by approximately 0.501 units, holding other factors constant. This may be due to increased cross-border trade opportunities, access to international markets, and strategic positioning that attract investors.

`mezzogiorno` (Southern Regions Dummy)

The negative and highly significant coefficient indicates that provinces in the Mezzogiorno region are significantly less likely to attract investments compared to those in the rest of Italy. Specifically, being located in the Mezzogiorno reduces the log-odds of receiving an investment by approximately 1.2775 units, holding other variables constant. This substantial effect highlights regional disparities in investment attractiveness.

7.5.2 Addition of Labor Market Variables

- **lnwage2_1**
- **ur_prov2**

`lnwage2_1` (Logarithm of Average Regional Wage)

The positive and highly significant coefficient indicates that higher average regional wages are associated with a higher probability of investment. Specifically, a one-unit increase in the logarithm of average regional wage increases the log-odds of an investment occurring by approximately 22.26 units, holding other variables constant.

Conditional (fixed-effects) logistic regression

Number of obs	=	121,920	
LR chi2(5)	=	1177.33	
Prob > chi2	=	0.0000	
Log likelihood = -4744.749	Pseudo R2	=	0.1104

choice	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
ln_dist	-.6096898	.1803782	-3.38	0.001	-.9632245	-.256155
border_r	-.2306173	.084518	-2.73	0.006	-.3962694	-.0649651
lnwage2_1	22.25826	1.072716	20.75	0.000	20.15577	24.36074
ur_prov2	.1255755	.0149523	8.40	0.000	.0962696	.1548814
mezzogiorno	2.107034	.2407419	8.75	0.000	1.635188	2.578879

Figure 7.5: Output with Labor Market Variables

This suggests that investors may perceive higher wages as indicative of a more skilled or productive workforce, outweighing the higher labor costs.

`ur_prov2` (Provincial Unemployment Rate)

The positive and statistically significant coefficient suggests that higher provincial unemployment rates are associated with a higher probability of investment. Specifically, a one-percentage-point increase in the unemployment rate increases the log-odds of an investment occurring by approximately 0.126 units, holding other variables constant. This may indicate that investors are attracted to areas with higher unemployment due to the availability of labor and potentially lower wage pressures.

`mezzogiorno` (Southern Regions Dummy)

The positive and highly significant coefficient indicates that, after controlling for distance, border effects, and labor market conditions, provinces in the Mezzogiorno region are more likely to attract investments compared to those in the rest of Italy. Specifically, being located in the Mezzogiorno increases the log-odds of receiving an investment by approximately 2.107 units, holding other variables constant. This result contrasts with previous models and suggests that the Mezzogiorno possesses attributes that make it attractive to investors when labor market factors are considered.

7.5.3 Inclusion Migration and Human Capital Variables

- **ter_share**

- **ln_immi1**
- **ln_emi2_1**
- **ln_immitot1**
- **ln_emitot1**

Conditional (fixed-effects) logistic regression

Number of obs	=	120,867	
LR chi2(10)	=	4029.72	
Prob > chi2	=	0.0000	
Log likelihood = -3271.9838	Pseudo R2	=	0.3811

choice	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
ter_share	.4489118	.0405683	11.07	0.000	.3693994	.5284243
ln_immi1	.3838323	.061381	6.25	0.000	.2635278	.5041368
ln_emi2_1	.2954705	.0565575	5.22	0.000	.1846199	.4063211
ln_immitot1	.6063972	.0768427	7.89	0.000	.4557884	.7570061
ln_emitot1	-.253586	.0618347	-4.10	0.000	-.3747797	-.1323922
ln_dist	-.4737517	.188221	-2.52	0.012	-.8426581	-.1048453
border_r	.8053304	.1029269	7.82	0.000	.6035974	1.007063
lnwage2_1	2.043556	1.176013	1.74	0.082	-.2613865	4.348498
ur_prov2	.0138085	.0214307	0.64	0.519	-.028195	.055812
mezzogiorno	1.099756	.244843	4.49	0.000	.6198729	1.57964

Figure 7.6: Output with Migration and Human Capital Variables

`ter_share` (Share of Population with Tertiary Education)

The positive and highly significant coefficient indicates that provinces with a higher share of population holding tertiary education degrees are more likely to attract investments. Specifically, a one-unit increase in `ter_share` increases the log-odds of an investment occurring by approximately 0.449 units, holding other variables constant. This suggests that human capital availability is a crucial factor for investors, likely due to the need for skilled labor.

`ln_immi1` (Logarithm of Number of Immigrants)

The positive and significant coefficient indicates that provinces with a higher number of immigrants are more attractive to investors. A one-unit increase in the logarithm of immigrants increases the log-odds of investment by approximately 0.384 units. This may reflect the contribution of immigrants to labor market flexibility and cultural diversity, which can be beneficial for businesses.

`ln_emi2_1` (Logarithm of Number of Emigrants)

The positive coefficient suggests that provinces with higher emigration rates also attract more investments. This might seem counterintuitive, but it could indicate that areas with higher population mobility have dynamic labor markets, which attract investors.

`ln_immitot1` (Logarithm of Total Number of Immigrants)

Similar to `ln_immi1`, this variable reinforces the positive impact of immigrant populations on investment attractiveness. The higher coefficient indicates that total immigrant numbers have an even more substantial effect.

`ln_emitot1` (Logarithm of Total Number of Emigrants)

The negative and significant coefficient indicates that higher total emigration reduces the likelihood of investment. This suggests that when a larger proportion of the population is leaving the area, it may signal economic or social challenges that deter investors.

`mezzogiorno` (Southern Regions Dummy)

The positive and significant coefficient indicates that, after controlling for human capital, migration, and other factors, provinces in the Mezzogiorno region are more likely to attract investments. This suggests that the Mezzogiorno has attributes that are attractive to investors when considering these variables.

7.5.4 Inclusion Trade Variables

- **ln_import**
- **ln_export**

`ln_import` (Logarithm of Imports)

The positive and highly significant coefficient for `ln_import` suggests that provinces with higher levels of imports from the investor's country are more likely to attract investments. Specifically, a one-unit increase in the logarithm of imports increases the logodds of an investment occurring by approximately 0.278 units, holding other factors constant. This finding highlights the importance of established trade relationships in facilitating investment decisions. High import activity likely signals an existing infrastructure for international trade, familiarity with the investor's

Conditional (fixed-effects) logistic regression

				Number of obs	= 117,854
				LR chi2(12)	= 4039.32
				Prob > chi2	= 0.0000
Log likelihood = -3233.5963				Pseudo R2	= 0.3845

choice	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
ter_share	.4089326	.0424883	9.62	0.000	.325657	.4922082
ln_immi1	.3385855	.0629435	5.38	0.000	.2152184	.4619525
ln_emi2_1	.2134312	.0577808	3.69	0.000	.100183	.3266795
ln_immitot1	.2969063	.0995791	2.98	0.003	.1017349	.4920778
ln_emitot1	-.1617925	.0721763	-2.24	0.025	-.3032554	-.0203295
ln_dist	-.1875471	.1928105	-0.97	0.331	-.5654489	.1903546
border_r	.6649532	.1054001	6.31	0.000	.4583727	.8715336
lnwage2_1	.3689337	1.190519	0.31	0.757	-1.964442	2.702309
ur_prov2	.0188448	.0223628	0.84	0.399	-.0249855	.062675
ln_import	.2775496	.0459314	6.04	0.000	.1875258	.3675735
ln_export	.0556136	.0527212	1.05	0.291	-.047718	.1589452
mezzogiorno	.6564146	.2588929	2.54	0.011	.1489938	1.163835

Figure 7.7: Output with Trade Variables

market, and robust economic connections, all of which reduce the perceived risks and costs of investment.

`ln_export` (Logarithm of Exports)

Unlike `ln_import`, the coefficient for `ln_export` is positive but not statistically significant. This suggests that export activity from a province to the investor's country does not have a meaningful impact on the likelihood of investment. While exports could indicate the economic vitality of a region, they may not directly facilitate inbound investment in the same way that imports do. This discrepancy may arise because imports are often associated with supply chain activities or market familiarity that directly benefit potential investors, whereas exports are more reflective of outward-oriented economic activity.

`mezzogiorno` (Southern Regions Dummy)

The positive and statistically significant coefficient for the `mezzogiorno` dummy indicates that provinces in the Southern Italian regions are more likely to attract investments compared to the rest of Italy, even after controlling for all included variables. Specifically, being located in the Mezzogiorno increases the log-odds of an investment occurring by approximately 0.656 units, holding other factors constant.

The persistent significance of the `mezzogiorno` dummy, even when trade variables are included, underscores that regional factors beyond trade relationships contribute to its investment attractiveness. These factors may include policy-driven advantages or other regional attributes not fully captured by the included variables.

7.5.5 Inclusion of Infrastructure and Institutional Variables

- **idi2**
- **inst_quality**
- **ln_pat**

Conditional (fixed-effects) logistic regression

				Number of obs	= 116,618
				LR chi2(15)	= 4037.27
				Prob > chi2	= 0.0000
Log likelihood = -3208.334				Pseudo R2	= 0.3862

choice	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
idi2	.0009242	.000678	1.36	0.173	-.0004046	.002253
inst_quality	.1908972	.5350938	0.36	0.721	-.8578675	1.239662
ln_pat	.1764325	.0810058	2.18	0.029	.0176641	.3352009
ter_share	.3650594	.0491195	7.43	0.000	.2687869	.4613319
ln_immi1	.3454271	.0644591	5.36	0.000	.2190895	.4717646
ln_emi2_1	.2122064	.0589109	3.60	0.000	.096743	.3276697
ln_immitot1	.1891974	.1238049	1.53	0.126	-.0534557	.4318505
ln_emitot1	-.1577636	.0818209	-1.93	0.054	-.3181296	.0026023
ln_dist	-.1885943	.1936734	-0.97	0.330	-.5681873	.1909986
border_r	.5903581	.1080536	5.46	0.000	.378577	.8021393
lnwage2_1	.0512703	1.224626	0.04	0.967	-2.348952	2.451492
ur_prov2	.02353	.0249327	0.94	0.345	-.0253372	.0723973
ln_import	.2810429	.0465762	6.03	0.000	.1897552	.3723305
ln_export	.0098835	.0584379	0.17	0.866	-.1046528	.1244197
mezzogiorno	.7093985	.2708853	2.62	0.009	.178473	1.240324

Figure 7.8: Output with Infrastructure and Institutional Variables

`idi2` (Infrastructure Index)

The coefficient for `idi2` is 0.0009242. Although the coefficient is positive, it is not statistically significant at the 5% level. This suggests that the infrastructure index, as measured, does not have a significant direct effect on the likelihood of attracting investments when controlling for other factors. This may be because infrastructure levels are relatively adequate across Italian provinces, reducing its variability and impact on investment decisions. Additionally, the index might not

capture specific aspects of infrastructure that are most relevant to investors, such as digital connectivity or industry-specific facilities. There might also be collinearity with other variables like innovation or human capital, obscuring its individual effect.

`inst_quality` (Institutional Quality)

With a coefficient of 0.1908972. The positive but non-significant coefficient indicates that institutional quality does not have a significant effect on investment decisions in this context. This may be due to limited variation in institutional quality across provinces or the possibility that the measure does not reflect the institutional factors most critical to investors, such as regulatory efficiency or corruption levels. Investors might also prioritize other factors over institutional quality, especially if institutions are generally acceptable or manageable across regions.

`ln_pat` (Logarithm of Number of Patents)

The coefficient for `ln_pat` is 0.1764325. The positive and statistically significant coefficient indicates that provinces with higher levels of innovation, as measured by the number of patents, are more likely to attract investments. Specifically, a one-unit increase in the logarithm of patents increases the log-odds of an investment occurring by approximately 0.176 units, holding other factors constant. This suggests that investors are attracted to regions with strong innovation ecosystems, possibly due to opportunities for collaboration, technology transfer, and access to skilled R&D personnel. High patent activity may also signal a dynamic and forward-looking economic environment, appealing to investors seeking growth opportunities.

`mezzogiorno` (Southern Regions Dummy)

The coefficient for `mezzogiorno` is 0.7093985. The positive and statistically significant coefficient suggests that provinces in the Mezzogiorno region are more likely to attract investments compared to other regions, even after controlling for infrastructure, institutional quality, innovation, and other variables. This may be due to government policies offering incentives for investment in the Mezzogiorno, untapped market potential with less competition, strategic location providing access to the Mediterranean and emerging markets, or lower labor and operating costs that attract cost-sensitive investors.

7.5.6 Addition of Agglomeration and Industrial Structure Variables

- **aggl_s_2d_count**
- **herf_2d_count**
- **manuf_conc**
- **firms_x_kmq**

Conditional (fixed-effects) logistic regression

Number of obs	=	111,692	
LR chi2(19)	=	4107.62	
Prob > chi2	=	0.0000	
Log likelihood = -3061.9777	Pseudo R2	=	0.4015

choice	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
aggl_s_2d_count	.2458048	.0227137	10.82	0.000	.2012867	.2903229
herf_2d_count	.1660684	.0687198	2.42	0.016	.0313801	.3007567
firms_x_kmq	.0042631	.0020107	2.12	0.034	.0003223	.008204
manuf_conc	-.9746535	.1981948	-4.92	0.000	-1.363108	-.5861988
idi2	.0004745	.0007172	0.66	0.508	-.0009311	.0018802
inst_quality	.8312363	.5824373	1.43	0.154	-.3103199	1.972792
ln_pat	.315707	.0908173	3.48	0.001	.1377085	.4937056
ter_share	.1038608	.0670942	1.55	0.122	-.0276415	.235363
ln_immi1	.2562065	.0665859	3.85	0.000	.1257006	.3867125
ln_emi2_1	.1910231	.0608022	3.14	0.002	.071853	.3101931
ln_immitot1	.2579032	.1359776	1.90	0.058	-.0086081	.5244144
ln_emitot1	-.1716777	.0885159	-1.94	0.052	-.3451656	.0018101
ln_dist	-.2801513	.1982021	-1.41	0.158	-.6686203	.1083178
border_r	.2509176	.1374111	1.83	0.068	-.0184032	.5202384
lnwage2_1	.5268115	1.360625	0.39	0.699	-2.139965	3.193588
ur_prov2	-.0062338	.0261948	-0.24	0.812	-.0575747	.0451071
ln_import	.208987	.0487017	4.29	0.000	.1135333	.3044406
ln_export	.045417	.0613466	0.74	0.459	-.0748202	.1656542
mezzogiorno	.8852065	.3249733	2.72	0.006	.2482706	1.522142

Figure 7.9: Output with Agglomeration and Industrial Structure Variables

`aggl_s_2d_count` (Agglomeration of Same-Sector Firms)

The coefficient for `aggl_s_2d_count` is 0.2458. This positive and significant coefficient indicates that provinces with a higher concentration of firms in the same sector are more likely to attract new investments. Specifically, each additional same-sector firm within the specified area increases the log-odds of an investment occurring by approximately 0.246 units. This effect can be attributed to the benefits of agglomeration economies, where firms gain from knowledge spillovers, a specialized labor pool, and supply chain efficiencies. Proximity to similar firms facilitates

the exchange of ideas, access to skilled workers, and reduces costs associated with suppliers and customers, making the location more attractive to investors.

`herf_2d_count` (Index of Sectoral Diversity)

With a coefficient of 0.1661, the positive and significant effect suggests that provinces with higher sectoral concentration (less diversity) are more likely to attract investments. This may be because specialized regions develop infrastructure, networks, and institutions tailored to specific industries, enhancing their reputation as industry hubs. Such specialization can attract firms seeking the benefits of established industry clusters, including access to specialized resources and a strong local market for their products or services.

`firms_x_kmq` (Firm Density per Square Kilometer)

The coefficient is 0.0043. The positive and significant coefficient indicates that higher firm density per square kilometer is associated with a greater likelihood of attracting investments. Each additional firm per square kilometer increases the log-odds of an investment by approximately 0.0043 units. This suggests that areas with a high concentration of firms are perceived as economically vibrant, offering better infrastructure and services, active markets, and potential for networking and collaboration, which are attractive features for investors.

`manuf_conc` (Manufacturing Concentration Index)

The coefficient of -0.9747. The negative coefficient implies that higher manufacturing concentration reduces the likelihood of attracting new investments; specifically, a one-unit increase in the manufacturing concentration index decreases the log-odds of an investment by approximately 0.975 units. This could be due to market saturation, increased competition for resources like labor and land, or environmental constraints associated with high levels of manufacturing activity. Such conditions may deter new investors who perceive limited growth opportunities or higher operating costs in these areas.

`mezzogiorno` (Southern Regions Dummy)

The coefficient is 0.8852. The positive and significant coefficient indicates that provinces in the Mezzogiorno region are more likely to attract investments compared to other regions, even after controlling for various factors. Being located in the Mezzogiorno increases the log-odds of receiving an investment by approximately 0.885 units. This effect may be due to regional incentives such as investment subsidies or tax breaks, the perception of untapped market potential with less

competition, strategic advantages like proximity to the Mediterranean and emerging markets, or lower labor and operating costs that appeal to cost-sensitive investors.

7.5.7 Completion with economic variables

- **fdi_stock_pair**
- **ln_gdp_d**
- **coloc_parent**

Conditional (fixed-effects) logistic regression

Number of obs	=	111,692	
LR chi2(22)	=	4581.69	
Prob > chi2	=	0.0000	
Log likelihood = -2824.9435	Pseudo R2	=	0.4478

choice	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
fdi_stock_pair	.0074215	.0014943	4.97	0.000	.0044926	.0103504
ln_gdp_d	.9586661	.2555686	3.75	0.000	.4577609	1.459571
coloc_parent	3.835967	.1985105	19.32	0.000	3.446894	4.225041
aggl_s_2d_count	.2257107	.0227916	9.90	0.000	.18104	.2703814
herf_2d_count	.1073913	.0699592	1.54	0.125	-.0297262	.2445087
firms_x_kmq	.0005342	.0021959	0.24	0.808	-.0037696	.0048381
manuf_conc	-.5130008	.2291659	-2.24	0.025	-.9621576	-.063844
idi2	.0011857	.0007382	1.61	0.108	-.0002612	.0026326
inst_quality	.5470282	.5900775	0.93	0.354	-.6095024	1.703559
ln_pat	.0519432	.1076097	0.48	0.629	-.1589679	.2628542
ter_share	.1076925	.0688765	1.56	0.118	-.027303	.242688
ln_immi1	.2110199	.0691687	3.05	0.002	.0754518	.3465879
ln_emi2_1	.1140571	.0611412	1.87	0.062	-.0057775	.2338917
ln_immitot1	-.2708402	.1961776	-1.38	0.167	-.6553413	.1136608
ln_emitot1	-.1725643	.0900967	-1.92	0.055	-.3491506	.004022
ln_dist	-.3859287	.2048782	-1.88	0.060	-.7874826	.0156252
border_r	.2151531	.1439681	1.49	0.135	-.0670191	.4973254
lnwage2_1	-.1300161	1.392134	-0.09	0.926	-2.858548	2.598516
ur_prov2	-.0213987	.0273734	-0.78	0.434	-.0750496	.0322522
ln_import	.1524726	.0496261	3.07	0.002	.0552072	.2497379
ln_export	.0729748	.0612027	1.19	0.233	-.0469804	.1929299
mezzogiorno	.3419982	.35236	0.97	0.332	-.3486147	1.032611

Figure 7.10: Output with Economic Variables

`fdi_stock_pair` (Bilateral FDI Stock Pre-2002)

The coefficient is 0.0074. This positive and highly significant coefficient indicates that higher levels of existing bilateral FDI stock between the investing country and Italy increase the likelihood of new investments in a province. Specifically, a one-unit increase in the bilateral FDI stock raises the log-odds of an investment occurring

by approximately 0.0074 units. This suggests that established economic ties and familiarity between countries enhance investor confidence, reduce perceived risks, and facilitate additional investments. Compared to previous models, which did not include this variable, the inclusion of `fdi_stock_pair` captures the influence of international economic relationships on investment decisions that were previously unaccounted for.

`ln_gdp_d` (Logarithm of GDP of the Destination Province)

With a coefficient of 0.9587. The positive and significant coefficient indicates that provinces with larger economic sizes, as measured by GDP, are more likely to attract investments. A 1% increase in the GDP of a province increases the log-odds of receiving an investment by approximately 0.959 units. This reflects the attractiveness of larger markets due to higher demand potential, better infrastructure, and more developed economic environments. In comparison to previous models, which may not have explicitly accounted for economic size, this result underscores the importance of market potential in investment decisions.

`coloc_parent` (Parent Firm Co-location Indicator)

The coefficient is 3.836. This positive and highly significant coefficient suggests that if a parent firm is already located in the province, the likelihood of additional investments by the same firm increases substantially. Specifically, the presence of the parent firm increases the log-odds of an investment by approximately 3.836 units. This indicates strong path-dependence in investment behavior, where firms prefer to expand operations in locations where they are already established, benefiting from existing assets, local knowledge, and economies of scale. Unlike previous models, which did not include this variable, the significant effect of `coloc_parent` may explain why the `mezzogiorno` variable becomes non-significant in this model.

`mezzogiorno` (Southern Regions Dummy)

The coefficient is 0.342. Unlike in previous models where `mezzogiorno` was significant and positive, indicating that Southern Italian provinces were more likely to attract investments, in this model, the coefficient is not statistically significant. This suggests that after controlling for bilateral FDI stock, economic size, and parent firm co-location, the regional effect of the Mezzogiorno diminishes. It implies that the attractiveness of the Mezzogiorno in earlier models may have been partly due to factors now captured by the new variables, such as existing investment relationships and firm-specific expansion strategies.

The inclusion of variables representing bilateral FDI stock, economic size, and parent firm co-location significantly enhances the model's explanatory power and

alters the significance of regional effects observed in previous models. Established international investment relationships, market size, and firm-specific location choices are critical determinants of investment decisions. Policymakers should consider these factors when designing strategies to attract and retain investments, focusing on strengthening economic ties, enhancing market potential, and supporting firm expansion within regions.

7.6 Binary variable "rmmi"

The variable `rmmi` is a dummy variable that takes the value 1 if the observation pertains to one of Italy's two main cities, Rome or Milan, and 0 otherwise. This variable was introduced into the analysis to isolate the specific effect that these two metropolises exert on attracting Foreign Direct Investment (FDI). Rome and Milan, being the country's major economic, financial, and political centers, can significantly influence foreign investors' decisions due to their unique characteristics, such as advanced infrastructure, high concentration of services, and greater international visibility. The inclusion of `rmmi` allows for controlling this particular effect, preventing the predominant impact of these cities from distorting the estimation of the influence of other territorial variables, especially that of the `mezzogiorno` (Southern Italy). By examining how the addition or removal of `rmmi` in the regressions affects the p-value of the `mezzogiorno` variable, it is possible to determine whether the differences in FDI attraction between the South and the rest of Italy are actually attributable to the presence of Rome and Milan or if they persist independently of them. In this way, `rmmi` plays a crucial role in understanding the true capacity of the South to attract foreign investments compared to the rest of the country, both when considering and excluding the effect of the two most important cities.

```
Conditional (fixed-effects) logistic regression

                                                Number of obs     =    122,360
                                                LR chi2(4)        =    3525.47
                                                Prob > chi2       =     0.0000
Log likelihood = -3574.8695                     Pseudo R2         =     0.3302
```

choice	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
ln_dist	-.9477323	.1803813	-5.25	0.000	-1.301273	-.5941914
border_r	.537947	.0772397	6.96	0.000	.3865599	.689334
rmmi	3.863381	.062822	61.50	0.000	3.740253	3.98651
mezzogiorno	-.3793458	.1224876	-3.10	0.002	-.6194172	-.1392745

Figure 7.11: Output with Geographical Variables with rmmi dummy

The inclusion of the variable `rmmi` in the logistic regression model markedly affects the estimated impact of `mezzogiorno` on the attraction of Foreign Direct Investment (FDI). In the regression without `rmmi`, the coefficient for `mezzogiorno` is -1.277 ($p < 0.001$), indicating a strong and highly significant negative effect of Southern Italy on FDI attraction compared to the rest of the country. However, when `rmmi` is added to the model, the coefficient for `mezzogiorno` decreases in magnitude to -0.379 ($p = 0.002$), and its statistical significance diminishes, though it remains significant at the 1% level. This change suggests that a substantial portion of the negative association between the South and FDI can be attributed to the dominant influence of Rome and Milan on investment patterns. The variable `rmmi`, representing these two major cities, has a large positive coefficient of 3.863 ($p < 0.001$), highlighting their exceptional ability to attract foreign investors. The inclusion of `rmmi` greatly improves the model's explanatory power, as evidenced by the increase in the pseudo R-squared from 0.0559 to 0.3302. This indicates that controlling for the unique effect of Rome and Milan is crucial for accurately assessing the South's capacity to attract FDI. Consequently, the addition of `rmmi` reveals that while Southern Italy still lags in attracting foreign investments relative to the rest of the country, the disparity is less pronounced than initially estimated and is partly due to the overwhelming pull of Rome and Milan rather than solely to regional characteristics of the South.

Conditional (fixed-effects) logistic regression

		Number of obs	= 117,854
		LR chi2(13)	= 4040.26
		Prob > chi2	= 0.0000
Log likelihood = -3233.1251		Pseudo R2	= 0.3845

choice	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
ter_share	.3789487	.0528486	7.17	0.000	.2753673	.4825301
ln_immi1	.3297143	.0634328	5.20	0.000	.2053882	.4540404
ln_emi2_1	.2145633	.0576222	3.72	0.000	.1016259	.3275006
ln_immitot1	.2797772	.1006298	2.78	0.005	.0825464	.4770081
ln_emitot1	-.1664799	.0716565	-2.32	0.020	-.306924	-.0260357
ln_dist	-.2089217	.1939091	-1.08	0.281	-.5889766	.1711331
border_r	.6446152	.1077598	5.98	0.000	.4334099	.8558204
lnwage2_1	.0078814	1.242599	0.01	0.995	-2.427569	2.443331
ur_prov2	.0166378	.0224888	0.74	0.459	-.0274395	.060715
ln_import	.2706615	.0463495	5.84	0.000	.1798182	.3615048
ln_export	.0634392	.0530928	1.19	0.232	-.0406208	.1674991
rmmi	.177527	.183336	0.97	0.333	-.1818049	.5368589
mezzogiorno	.5768377	.2715428	2.12	0.034	.0446236	1.109052

Figure 7.12: Second Output with rmmi dummy

Comparing the two regression outputs, the inclusion of the variable `rmmi` results in a slight decrease in both the coefficient and statistical significance of the

`mezzogiorno` variable. Specifically, without `rmmi`, the coefficient for `mezzogiorno` is 0.6564 with a p-value of 0.011, indicating a statistically significant positive effect. When `rmmi` is included, the coefficient drops to 0.5768 and the p-value increases to 0.034, suggesting a reduced effect that remains significant but less robust. This change implies that `rmmi` may account for some of the variation previously attributed to `mezzogiorno`, possibly due to overlapping influences or multicollinearity between the two variables. However, `rmmi` itself is not statistically significant (p-value of 0.333), indicating that while it affects the coefficient of `mezzogiorno`, it does not have a significant independent effect on the dependent variable. The overall model fit remains virtually unchanged, as evidenced by the consistent Pseudo R-squared values and minimal differences in the Log likelihood and LR chi-squared statistics. Therefore, adding `rmmi` slightly attenuates the impact of `mezzogiorno` but does not substantially improve the model's explanatory power.

Conditional (fixed-effects) logistic regression

Number of obs	=	**111,692**	
LR chi2(**20**)	=	**4109.16**	
Prob > chi2	=	**0.0000**	
Log likelihood = **-3061.2099**	Pseudo R2	=	**0.4016**

choice	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
aggl_s_2d_count	.2446567	.022682	10.79	0.000	.2002008	.2891127
herf_2d_count	.1780738	.0691576	2.57	0.010	.0425273	.3136203
firms_x_kmq	.0020375	.0026893	0.76	0.449	-.0032333	.0073084
manuf_conc	-.9163287	.2020578	-4.53	0.000	-1.312355	-.5203026
idi2	.0007562	.000752	1.01	0.315	-.0007177	.00223
inst_quality	.8332467	.5802835	1.44	0.151	-.304088	1.970581
ln_pat	.3638176	.0988661	3.68	0.000	.1700437	.5575915
ter_share	.0695987	.0727165	0.96	0.339	-.0729229	.2121204
ln_immi1	.2472376	.0666805	3.71	0.000	.1165462	.3779291
ln_emi2_1	.1944295	.060653	3.21	0.001	.0755518	.3133073
ln_immitot1	.2193392	.1383832	1.59	0.113	-.0518869	.4905653
ln_emitot1	-.2165664	.0904115	-2.40	0.017	-.3937697	-.0393632
ln_dist	-.2972685	.1982212	-1.50	0.134	-.6857749	.0912379
border_r	.2770658	.1389504	1.99	0.046	.0047279	.5494036
lnwage2_1	-.1444503	1.464319	-0.10	0.921	-3.014463	2.725562
ur_prov2	-.0041587	.0262899	-0.16	0.874	-.0556859	.0473686
ln_import	.2017709	.0489946	4.12	0.000	.1057432	.2977985
ln_export	.0561829	.0616297	0.91	0.362	-.064609	.1769749
rmmi	.3875715	.3109143	1.25	0.213	-.2218093	.9969522
mezzogiorno	.861907	.3239946	2.66	0.008	.2268893	1.496925

Figure 7.13: Third Output with rmmi dummy

The inclusion of the variable `rmmi` in the model causes a slight decrease in the coefficient associated with `mezzogiorno`, from 0.8852 to 0.8619, with a minimal variation in the standard error (from 0.3250 to 0.3240). Despite this reduction, `mezzogiorno` remains statistically significant in both models ($p < 0.01$), indicating

that the regional effect persists regardless of the addition of `rmmi`. Furthermore, the variable `rmmi` is not statistically significant ($p = 0.213$), suggesting that it does not have a relevant impact on the dependent variable. Therefore, the addition of `rmmi` only marginally affects `mezzogiorno`, leaving its effect in the model essentially unchanged.

Conditional (fixed-effects) logistic regression

Number of obs	=	111,692	
LR chi2(23)	=	4582.25	
Prob > chi2	=	0.0000	
Log likelihood = -2824.6603	Pseudo R2	=	0.4479

choice	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
fdi_stock_pair	.0072692	.0015072	4.82	0.000	.0043152	.0102232
ln_gdp_d	.9278682	.2574828	3.60	0.000	.4232111	1.432525
coloc_parent	3.848649	.1994278	19.30	0.000	3.457777	4.23952
aggl_s_2d_count	.2251458	.0227807	9.88	0.000	.1804965	.269795
herf_2d_count	.1148096	.0704872	1.63	0.103	-.0233427	.2529619
firms_x_kmq	-.0007818	.002804	-0.28	0.780	-.0062775	.004714
manuf_conc	-.4878817	.2304867	-2.12	0.034	-.9396273	-.0361361
idi2	.0013421	.0007668	1.75	0.080	-.0001608	.0028449
inst_quality	.5576929	.5890414	0.95	0.344	-.5968069	1.712193
ln_pat	.0888603	.1182473	0.75	0.452	-.1429002	.3206209
ter_share	.0857959	.0748195	1.15	0.252	-.0608476	.2324395
ln_immi1	.2058094	.0693755	2.97	0.003	.069836	.3417828
ln_emi2_1	.1165332	.061107	1.91	0.057	-.0032343	.2363006
ln_immitot1	-.2778864	.1960817	-1.42	0.156	-.6621996	.1064267
ln_emitot1	-.1958941	.0915819	-2.14	0.032	-.3753914	-.0163968
ln_dist	-.3957808	.2050787	-1.93	0.054	-.7977277	.0061662
border_r	.232599	.1457485	1.60	0.111	-.0530627	.5182607
lnwage2_1	-.5520724	1.499891	-0.37	0.713	-3.491806	2.387661
ur_prov2	-.0192945	.0275325	-0.70	0.483	-.0732571	.0346682
ln_import	.1489835	.0498079	2.99	0.003	.0513618	.2466051
ln_export	.0798242	.0616997	1.29	0.196	-.041105	.2007534
rmmi	.2437629	.3229591	0.75	0.450	-.3892252	.8767511
mezzogiorno	.3348775	.3516472	0.95	0.341	-.3543383	1.024093

Figure 7.14: Final Output with rmmi dummy

Comparing the two outputs, the inclusion of the variable `rmmi` does not seem to significantly affect the impact of `mezzogiorno` in the model: the coefficient of `mezzogiorno` changes from 0.3419982 without `rmmi` to 0.3348775 with `rmmi`, with a marginal increase in the p-value from 0.332 to 0.341, indicating that the statistical significance of `mezzogiorno` remains unchanged. Therefore, the introduction of `rmmi` does not alter either the coefficient or the statistical relevance of `mezzogiorno`, suggesting that `rmmi` does not have a substantial impact on the relationship between `mezzogiorno` and the dependent variable in the model under consideration.

7.7 Multiplicative Dummies

The interaction variables are created by multiplying each variable of interest by the Mezzogiorno dummy variable. Below, we analyze each line of Dolist code:

```
gen fdi_stock_pair_mez = fdi_stock_pair * mezzogiorno
gen ln_import_mez = ln_import * mezzogiorno
gen ln_export_mez = ln_export * mezzogiorno
gen coloc_parent_mez = coloc_parent * mezzogiorno
gen aggl_s_2d_count_mez = aggl_s_2d_count * mezzogiorno
```

And this is the output:

```
                                              Number of obs     =    111,692
                                              LR chi2(27)       =    4614.61
                                              Prob > chi2       =     0.0000
Log likelihood =  -2808.481                   Pseudo R2         =     0.4510
```

choice	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
ln_dist	-.4524011	.2054891	-2.20	0.028	-.8551524	-.0496499
border_r	.1870232	.1461359	1.28	0.201	-.0993978	.4734442
ln_gdp_d	1.036309	.2616527	3.96	0.000	.5234788	1.549139
ln_pat	.0936389	.1192416	0.79	0.432	-.1400704	.3273482
idi2	.0016328	.0007752	2.11	0.035	.0001135	.003152
inst_quality	.4394133	.5938537	0.74	0.459	-.7245186	1.603345
lnwage2_1	-.8384673	1.495837	-0.56	0.575	-3.770254	2.09332
ur_prov2	-.0182034	.0280029	-0.65	0.516	-.0730882	.0366813
aggl_s_2d_count	.2458767	.0250703	9.81	0.000	.1967398	.2950136
aggl_s_2d_count_mez	-.0710693	.0474565	-1.50	0.134	-.1640824	.0219438
herf_2d_count	.1150498	.0708432	1.62	0.104	-.0238003	.2538999
ter_share	.0679572	.0754906	0.90	0.368	-.0800018	.2159161
ln_immi1	.204632	.0695151	2.94	0.003	.0683849	.3408791
ln_emi2_1	.1030035	.0617422	1.67	0.095	-.0180091	.224016
ln_immitot1	-.3366156	.1996654	-1.69	0.092	-.7279526	.0547214
ln_emitot1	-.2055182	.091411	-2.25	0.025	-.3846804	-.026356
fdi_stock_pair	.0067448	.0015197	4.44	0.000	.0037662	.0097234
fdi_stock_pair_mez	-.1698071	.0935868	-1.81	0.070	-.3532339	.0136197
ln_import	.1819252	.0547729	3.32	0.001	.0745723	.2892781
ln_import_mez	-.0847987	.087067	-0.97	0.330	-.2554468	.0858495
ln_export	.0337678	.0704215	0.48	0.632	-.1042558	.1717914
ln_export_mez	.0986602	.0860019	1.15	0.251	-.0699003	.2672208
coloc_parent	3.477134	.2079762	16.72	0.000	3.069508	3.88476
coloc_parent_mez	2.496715	.4790448	5.21	0.000	1.557804	3.435625
rmmi	.206656	.3248394	0.64	0.525	-.4300175	.8433295
firms_x_kmq	.0002205	.0028277	0.08	0.938	-.0053218	.0057628
manuf_conc	-.3865403	.2297607	-1.68	0.092	-.836863	.0637824

Figure 7.15: Output of Multiplicative Dummies

Analysis of the Output

The regression output presents the estimated coefficients for each variable and their respective interactions with "mezzogiorno." We will analyze in detail the variables

of interest, comparing the coefficients of the "non-multiplied" variables with those of the variables interacted with "mezzogiorno."

1. `fdi_stock_pair` and `fdi_stock_pair_mez`

- **`fdi_stock_pair`**: Coefficient = 0.0067448, p-value = 0.000
- **`fdi_stock_pair_mez`**: Coefficient = -0.1698071, p-value = 0.070

The positive and significant coefficient of `fdi_stock_pair` indicates that, in general, an increase in former foreign direct investments increases the probability of choosing a location. However, the negative interaction (although marginally not significant at the 5% level, $p = 0.070$) suggests that this effect is significantly smaller in the Mezzogiorno. In other words, the positive effect of FDI on the probability of choice is attenuated in Southern Italy.

2. `ln_import` and `ln_import_mez`

- **`ln_import`**: Coefficient = 0.1819252, p-value = 0.001
- **`ln_import_mez`**: Coefficient = -0.0847987, p-value = 0.330

The positive and significant coefficient of `ln_import` indicates that an increase in the logarithm of imports raises the probability of choosing a location. The negative but not statistically significant interaction suggests that this positive effect is reduced in the Mezzogiorno, but due to the lack of statistical significance, we cannot conclude with certainty about this territorial difference.

3. `ln_export` and `ln_export_mez`

- **`ln_export`**: Coefficient = 0.0337678, p-value = 0.632
- **`ln_export_mez`**: Coefficient = 0.0986602, p-value = 0.251

Neither coefficient is statistically significant. This indicates that the logarithm of exports does not have a significant effect on the probability of choosing a location, neither overall nor in the Mezzogiorno.

4. `coloc_parent` and `coloc_parent_mez`

- **`coloc_parent`**: Coefficient = 3.477134, p-value = 0.000
- **`coloc_parent_mez`**: Coefficient = 2.496715, p-value = 0.000

Both coefficients are positive and highly significant. `coloc_parent` indicates that the presence of a parent company in the same location greatly increases the probability of choosing that location. The positive interaction with `mezzogiorno` suggests that this effect is even pronounced in the Mezzogiorno.

5. `aggl_s_2d_count` and `aggl_s_2d_count_mez`

- **`aggl_s_2d_count`**: Coefficient = 0.2458767, p-value = 0.000
- **`aggl_s_2d_count_mez`**: Coefficient = -0.0710693, p-value = 0.134

Sectoral agglomeration at the two-digit level increases the probability of choosing a location (positive and significant coefficient). The negative interaction (not significant at the 5% level but at 13.4%) suggests that this effect is reduced in the Mezzogiorno, but we cannot assert this with statistical certainty.

Chapter 8

Conclusions

This thesis presents an in-depth analysis of foreign direct investment (FDI), beginning with an overview of multinational corporations and the definition of FDI. It examines how FDIs are classified, as well as their causes and impacts. Subsequently, the trends of FDI both before and after the 2007 financial crisis are explored. Thereafter, the focus shifts to Italy, providing details on its political structure, history, recent economic changes, and current state of affairs.

An empirical chapter on foreign direct investments in Italy examines investment projects using data from the *fDi Markets* dataset, analyzing them by sector, activity, and country of origin. A theoretical framework is then established, and the empirical literature on the factors influencing FDI is reviewed as part of an empirical investigation into the determinants of FDI in Italy. Methods for multivariate models, logistic regression, and conditional logistic regression are described in the review of econometric literature. The *fDi Markets* dataset, as well as information on independent variables, dataset structure, and descriptive analyses, is discussed in the subsequent chapter, which also includes the presentation of the model and the presentation of results.

The main objective of the study is to identify preferences in regional investment through the application of a conditional logit model, a robust statistical method designed for the analysis of discrete choices.

A central element of our analysis was the introduction of the binary variable `mezzogiorno`, which identifies the provinces belonging to the eight regions of Southern Italy. This variable allowed us to isolate and evaluate the specific effect that the Mezzogiorno has on attracting FDI, highlighting any differences compared to the rest of the country.

The initial results showed that the variable `mezzogiorno` had a negative and significant coefficient, indicating that provinces in Southern Italy have a lower probability of being chosen as destinations for FDI compared to provinces in Central and Northern Italy.

However, the analysis revealed that the negative effect associated with the Mezzogiorno progressively diminishes with the inclusion of additional explanatory variables in the model. When variables related to the labor market, the effect of the `mezzogiorno` variable changed significantly. The coefficient associated with the Mezzogiorno shifted from negative to positive, also becoming highly significant. This suggests that once labor market conditions are controlled for, the Mezzogiorno presents characteristics that can increase attractiveness for foreign investors.

The inclusion of variables related to human capital and migration further modified the impact of the `mezzogiorno` variable, showed positive and significant effects on attracting FDI. This indicates that the provinces of the Mezzogiorno, although they may have lower levels of economic development, offer potential in terms of human capital that can be leveraged by foreign investors.

The inclusion of the variable `coloc_parent`, indicating the presence of parent companies in the same province, highlighted a strong positive effect on attracting FDI, both at the national level and the Mezzogiorno.

The analysis also considered the effect of Italy's two main cities, Rome and Milan, through the binary variable `rmmi`. Their inclusion allowed us to isolate the significant impact these metropolises have on attracting FDI. Although initially the Mezzogiorno seemed less attractive, the negative effect was reduced once the predominant effect of Rome and Milan was considered, indicating that part of the regional disparities are influenced by the concentration of investments in these cities.

A particularly significant aspect that emerged was the use of interactive variables obtained by multiplying key variables by the dummy `mezzogiorno`. This approach allowed us to examine whether and how the effect of certain factors on attracting FDI differs between the Mezzogiorno and the rest of Italy.

An essential aspect highlighted by our analysis is the significantly positive effect of the presence of parent companies (`coloc_parent`) on attracting foreign direct investments in the Mezzogiorno. The interaction between this variable and the `mezzogiorno` dummy showed that, in Southern Italy, the positive impact of the presence of parent companies is even more pronounced compared to the rest of the country. This indicates that when a parent company is already present in a southern province, the probability that further foreign investments will concentrate in the same area increases significantly.

In light of these results, an effective strategy to amplify this positive effect is to offer specific incentives to foreign companies that choose to establish their headquarters in the Mezzogiorno. This approach aims to create a favorable environment for the initial establishment of foreign companies, which can act as catalysts for further investments. The incentives could include tax breaks, grants, bureaucratic simplifications, facilitated access to infrastructures and services, and support in recruiting qualified personnel.

This policy would have a dual beneficial effect:

1. **Initial Attraction of Investments:** By offering advantageous conditions, the Mezzogiorno would become a more competitive choice for foreign companies seeking new operational headquarters. Establishing parent companies in the South would not only bring capital and direct employment but also increase the region's international visibility as an investment destination.

2. **Multiplier Effect on Attracting Further FDI:** The presence of parent companies creates a more dynamic and interconnected economic ecosystem. Other foreign companies might be encouraged to invest in the Mezzogiorno to exploit synergies with companies already present, access established supplier networks, and benefit from a more specialized labor market. This multiplier effect is particularly relevant in the context of the Mezzogiorno, where our analysis has shown that the presence of parent companies has an even more significant impact on attracting new investments compared to the rest of Italy.

Implementing this strategy could also help overcome some of the challenges identified in the analysis, such as the lower effectiveness of pre-existing economic relations and sectoral agglomeration in the Mezzogiorno. By incentivizing the establishment of parent companies, the formation of industrial clusters is stimulated, and trade networks are strengthened, creating a more attractive context for investors.

Concrete examples of interventions could include:

- **Special Economic Zones (SEZs):** Establishing areas with favorable tax and regulatory regimes to encourage the settlement of foreign companies.

- **Innovation Support Programs:** Funding and public-private partnerships to develop research and development centers in collaboration with foreign companies.

- **Dedicated Infrastructures:** Investments in logistical, digital, and transportation infrastructures to improve accessibility and operational efficiency in the Mezzogiorno.

- **Training and Human Capital Development:** Projects to enhance the skills of the local workforce, aligning with the needs of foreign companies through professional training programs and collaborations with universities and research centers.

In summary, offering specific incentives to foreign companies to establish their headquarters in the Mezzogiorno represents a strategic solution to leverage the region's potential. This initiative would not only amplify the positive effect of

the presence of parent companies on attracting new FDI but also contribute to creating a more dynamic and competitive economic environment. Supported by our analysis, this approach can be considered one of the most effective levers to reduce the North-South divide, promoting balanced and sustainable economic development at the national level.

While this study enhances our understanding of the variables that influence foreign direct investments, it also has some important limitations. Firstly, we did not quantify the impact that changes in regressors would bring to the choice made by firms. In other terms, we did not quantify the impact that policy actions aimed at increasing the attraction variables of the South to the level of the North would imply. Secondly, the analysis is limited—due to data availability—to the 2003-2015 period. It would be very interesting to extend the analysis covering also the Covid years.

Furthermore, incorporating qualitative components such as stakeholder interviews could provide deeper insights into the complex issues influencing investment decisions, beyond what quantitative models alone might reveal. Finally, it is important to remember that the results are not easily generalizable, being the Italian experience, and the South in particular, quite peculiar.

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