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FOREIGN DIRECT INVESTMENT IN ITALY 2000 – 2010: SPATIAL PATTERNS
AND IMPLICATIONS

by

Enzo Crescentini

A Thesis
Submitted to the
Faculty of The Graduate College
in partial fulfillment of the
requirements for the
Degree of Master of Arts
Department of Geography
Advisor: Gregory Veeck, Ph.D.

Western Michigan University
Kalamazoo Michigan
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FOREIGN DIRECT INVESTMENT IN ITALY 2000 - 2010: SPATIAL PATTERNS AND IMPLICATIONS

Enzo Crescentini M.A.

Western Michigan University, 2012

Foreign direct investment (FDI) has long been shown to be an important driver of economic growth as well as a source of knowledge transfer in host countries. Italy, now the tenth largest economy in the world, has a remarkable distribution of FDI characterized by a metropolitan industrial North and what is commonly referred to as an economically unfit or “backwards” South. Given these regional differences, Italy faces many interesting challenges in attracting FDI in the current global economic climate. The nation must attract capital to less-developed regions as well as to the extensive industrial clusters in the North that are home to some of the world’s most recognized and successful firms.

To this end, the current study investigates the geographic distribution of FDI in Italy over a time period of 10 years using a comprehensive database collected from several sources, but primarily the database “Aida” (sub-sample of the European database “Amadeus”) which includes the balance sheet of all registered firms operating in Italy from 2000 to 2010. This study incorporates a multi-method approach including statistical analysis of an enhanced Aida database, the creation of a GIS, and information gathered via a series of semi-structured interviews of factory managers in Italy to place the statistical data in appropriate context.

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CHAPTER 1 INTRODUCTION

MNC location decisions are based on specific business strategies. Firms take into consideration many factors related to a potential investment location. These include: quality of the host country government (HCG), host country industrial capabilities and the MNC's ability to make use of the various aspects of influence and power uniquely possessed by the firm in order to create value and exploit capital in the new host country. In the 20th century nation states have lost a great deal of sovereignty as well as much of their ability to manage capital and markets, that are now increasingly mobile and liquid. MNCs have filled this power void and have become major power players in global economic and even political affairs. The liquidity of capital and the spatially fixed nature of labor and government are what allow the MNC to function at a global scale. According to Hayter (1997) MNCs are governed by “technostructures”, or a, “professionally specialized management bureaucracy who have power and performance over other agents”(Hayter 1997, 161). The spatial mobility of capital provides technostructures with a fundamental bargaining advantage over local labor and governments, and this bargaining between firms and nations is what leads to business developments among private entities and governments all over the world.

The geographic approach to analyzing FDI views MNC decisions as rational maximizers across spatial-temporal scales. Their strategies are motivated by several factors. Internally, long-term motivations may be specific business goals, or established corporate structures built upon constantly accumulating experience. External strategies may deal with reacting to the structures of other organizations like rivals, consumers,

suppliers, interest groups, HCGs and labor organizations (Hayter 1997). Just as the strategy of firms depends on these variables, likewise the constraints that firms face are similar. Countervailing powers such as rival corporations, governments, labor groups and even environmental organizations alter the way in which MNCs make decisions.

The real power behind MNCs and TNCs alike is their strategic advantage in terms of knowledge related to anticipating the impact of investments on a HCG's economy. This is due to the more global nature of their investment planning and the spatially fixed nature of the state which begins to seem more of an archaic institution in this era of globalization. Hirst and Thompson (1992) suggest that the majority of large firms that are international in scope remain MNCs, which have distinct national (and regional) "homes" and many fewer that constitute true transnational companies (TNCs) that are state-less with no particular national loyalty. This is insightful albeit dated. Studies by the United Nations found the number of transnational corporations has since doubled from 37,000 TNCs worldwide in the early 1990s to an estimated 77,000 in 2004 (United Nations 2007).

The Italian trade commission (ICE) reported that in Jan 2009, there were 7,152 foreign companies operating in Italy. These firms employed approximately 853,000 workers and generated sales of 249.5 billion Euros in that year (Milan Chamber of Commerce 2008). Reports also indicate that in 2009, Italy slipped in nearly every category regarding regulatory transparency (NGO rankings). As a result, Italy faces many challenges in continuing to attract FDI including perceptions of corruption and the negative externality of a muddled commercial law system (Milan Chamber of Commerce 2008). In areas where organized crime thrives, corruption and ineffective institutions act

as a major deterrent to investment and this is clearly evident in the geographic distribution of FDI in Italy. As of 2009, 77% of FDI is located in the Northern regions of Italy, with Lombardy alone accounting for 46%. The regions in Central and Southern Italy account for 11.6% and 6.6% of Italy's total FDI. The South has long been thought of as industrially "backwards". This is the result of several factors that can be traced back to the initial stages of the industrial revolution. The *Southern Question* or *la Questione Meridionale* can be traced back to the country's unification in 1861, and relates to Italy's underdeveloped South (Gonzalez 2011).

Still, despite these regional imbalances, there are several strong points in regards to the attractiveness of Italy as a future environment for MNCs to do business, particularly Southern Italy. Italy possesses a large internal market as already mentioned (10th in the world), as well as an industrial economy with many firms producing world-class products. Other highly significant factors that contribute to Italy's attractiveness as a host nation seem to be the quality of the Italian educational system as well as an excellent healthcare system. Finally, among medium and large-size firms, the systems of management used by Italian corporations are very sophisticated and effective (Milan Chamber of Commerce 2008). Each of these factors adds to the attractiveness of Italy. However the question remains: "How may Italy spread the benefits of foreign direct investment to regions that are not traditionally viewed as valuable locations of choice by MNCs?"

As a result of European Union policy, depressed regions in Italy have resorted to a series of fiscal incentives designed to attract FDI (Santangelo 2004). This has included the elimination of surtaxes on foreign firms as well as modest fiscal policies in place to

create “pull factors” and increase Greenfield investment. These initial steps should prove to be beneficial, but research indicates that they are not enough to create significant investment in depressed regions, specifically in the south of Italy (Roberto 2004). Foreign acquisition has been shown to be constrained by various other factors including the quality of public infrastructure, as well as the prior existence and concentration of foreign manufacturing firms within a province and/or adjacent provinces (Roberto 2004). This alone leaves many regions in Italy in difficult situations. Without the prior existence of agglomerations of foreign firms and adequate public infrastructure, a cycle of depression has plagued the South, even during the 1980s, considered by many to be the “heyday” of FDI in Italy. Of course, a more careful analysis of FDI spatial patterns over the past ten years will help clarify longitudinal trends while placing current conditions in clearer focus.

This research, then, will investigate the spatial distribution of FDI in Italy over the past ten years as well as attempt to shed light on several questions related to FDI, its determinants and its multiple roles in the Italian economy. (1)What does the diffusion of FDI over the recent decades tell us about the location decision-making process of MNCs? (2)What are Italy’s strongest assets that act as determinants of foreign direct investment? (3)How have Italian determinants affected the regional and provincial distribution of Italian FDI? (4)How can so-called “backwards” regions increase their national share of FDI through policy making? (5) What are the implications for future research on the spatial distribution of FDI and thus the flow of innovation and capital?

The current research will proceed in chapter 2 with a general background of the economic, social and historical conditions of Italy that have effectively formed present

day conditions and the attractiveness of Italy as a host nation. Chapter 3 will commence a review of the current body of FDI literature in order to give the reader a contextual basis of understanding. Chapters 4, 5 and 6 respectively will detail the data and methods used, the rationale for using such a methodology, and finally report the results and a discussion of these results.

CHAPTER 2 BACKGROUND

This chapter will provide general background information related to the economic, social, and cultural conditions of Italy. The information spans various periods in history starting with events following World War 2 to the present. The intention is to place my own study of Italian inward FDI in a context that sufficiently prepares the reader to understand critical issues relating to Italy's ability to attract firms. This chapter is not a comprehensive analysis of this complex country. The scope of the current study focuses only on the issues that pertain to FDI. I begin with post-war Italy because of the extent that the nation was reconstructed after the devastation of the war. After the Great War, Italian society was reborn and its economy completely restructured.

Post-War Italy

In the wake of the devastation caused by World War 2, Italy's leaders faced the very large task of rebuilding the country. Italian infrastructure had been severely damaged as a result of relentless bombing raids that supported the allied surge in the center and south of the country (De Rosa 2008). This occupation surge was coupled with the systematic destruction waged by German armies during their retreat northward. After the war, Italy was dependent on foreign aid for foodstuffs and the raw materials required for rebuilding the nation's infrastructure. Under the fascist regime during World War 2, Italy operated under self-imposed autarkic policies. For decades, Italy faced difficulties in obtaining foreign exchange reserves. After the war and Italy's surrender to Allied Powers, there was a critical need of an influx of foreign capital to stimulate the broken economy. Policy makers sought out English and American foreign business and financial interests in order to accomplish this (De Rosa 2008).

By 1945, Anglo and American aid had saved Italy from a total collapse. This would not be the last time foreign aid would rescue Italy from total economic disaster. The aid came as a series of loans to the country. The first large loan was serviced to Fiat, the largest multinational corporation and automobile manufacturer in Italy. This aid was made possible largely through a previous relationship between Fiat and General Motors in the United States. During this time period, political relations between the United States and Italy were still suffering. Italy found it increasingly difficult to secure aid directly from the Allied nations and, most importantly, the United States of America. Given domestic political forces, the United States government found it difficult to negotiate and aid a country that had such a large communist presence influencing domestic politics. As Italy was on the brink of virtual collapse, various agents within the United States government were able to use backdoor moves to provide Italy with the foreign capital it desperately needed. This political and economic support came by way of the United Nations Relief and Rehabilitation Administration (UNRRA) that donated USD \$500 million to cover the standing trade deficit, along with USD \$50 million directly from the United States State Department, and USD \$25 million from the Export-Import bank based on future provisions of cotton to the USA (De Rosa 2008).

These initial loans from the United States barely covered Italy's immediate needs and within the year the nation soon needed additional foreign capital. This trend would continue throughout the 1940s and 1950s. Ultimately, policy makers grew desperate and decided to draft a review report of the Italian economy to present to large banks and investors in the United States. The purpose of the report was to attract foreign investment, foreign capital and convey the critical state of the Italian situation. Italian policy makers

wanted the world to know their country was prepared to expend great resources to improve its attractiveness as a destination for investment. The economic review report was very eloquently written and accurately described the Italian conditions. It also laid out clear goals for improvements and future needs, yet Italy still had difficulties obtaining foreign exchange. This was a clear result of the still very visible communist presence in the country. This changed however in 1947, as the international community witnessed the communist coup in Greece. The Greek coup stoked fears that Italy would follow a similar route and as a consequence, Italy was given foreign aid to replenish foreign exchange reserves and strengthen the lira. Once again, economic collapse was narrowly avoided due to intervention of foreign powers (De Rosa 2008).

Foreign aid managed to alleviate some of the immediate concerns of the Italian government, but many other problems still plagued the country. Luckily for the Italians, only about 12% of industrial capacity was damaged during the war. The highest incidence of damage was found in the Center and South of the country. Areas that were most exposed to the fighting suffered a loss of about 30% to industrial capacity. Between 1945 and 1947, Italy was able to rebuild its industrial power and capacity to pre-war levels (De Rosa 2008). Engineering and chemicals were two of the greater success stories, but Italy still suffered from many of the same problems as those that were pressing immediately after the war. One major setback for all the industries in Italy was weak and damaged transportation infrastructure. By 1947, the railway system was rebuilt to only about 60% of prewar levels. Other major problems that plagued the nation were inadequate supplies of raw materials and natural resources, as well as a shortage of able and skilled labor.

This shortage stemmed from the Marshall Plan, under which Italy suffered from an imbalance of population and available resources. The Marshall Plan was a large scale American-aid plan for European nations after the war. Compounding the problem of scarce human capital was the fact that the Marshall Plan allowed Italy a net emigration of only 400,000 persons. The departing Italians were recruited from the limited number of skilled workers, whereas the labor problems Italy suffered were a result of the surplus of two million unemployed and unskilled workers remaining in the country. The only solutions to the problems faced during the late 1940s were further large scale emigrations in conjunction with greater efforts to expand domestic use of foreign capital (De Rosa 2008).

During the 1950s, Italy finally saw its agricultural and industrial capacity surpass pre-war levels. Economic reconstruction was successful, yet Italy continued to suffer from the unemployment of about two million workers. Still, policy makers challenged that unemployment was structural in nature, and the nation required foreign investment to mitigate this labor issue.

The Korean War in the 1950s underscored the importance of the global economy and highlighted Italian dependence upon foreign actors in the international community. This once again led to an inflationary cycle, with an associated rise in the cost of living of about 12%. By 1951, Italy was facing a large trade deficit of USD \$280 million and the Italian government was earnestly trying to reign its foreign debt. Restrictive banking policies were instituted, but ironically the taxation of foreign investors and industrialists was relaxed during this time period. With the intelligent use of restrictive banking, Italy

would finally enter its post-war period of economic expansion in the mid-1950s (De Rosa 2008).

Following the example of nations on both sides of the “Iron Curtain”, Italian policy makers decided to enact a 10 year plan of investment in the country starting in 1950. In 1951, overall European output had reached 132% of prewar levels. Europe had successfully recovered from the devastation and the improvement was reflected in Italy as well as other nations. The nation managed to reduce its final deficit to 1.45% of total external spending. This plan, known as the Southern Italy Development Fund (SIDF), was intended to boost the country’s industrial capabilities while simultaneously increasing the nation’s attractiveness as a destination for foreign capital investment. The SIDF included plans for raising foreign investment levels in depressed Southern regions. The SIDF was also focused on the exploration and development of natural gas and oil resources, promoting agricultural reforms and increasing the development of low income housing for the country’s poor. Although Italy was experiencing high rates of economic growth, its economy was not balanced across various regions and industrial sectors (De Rosa 2008).

In 1953, the Italian government approved a second plan written by Minister Ezio Vanoni to encourage the development of an improved infrastructural network, including expansion of public services provision and the public utilities that were needed. In particular, a new plan was developed concerning the critical infrastructure of electrical energy production and distribution (Cafferata 2010). Again, United States aid and further market liberalization each played a large role in this process. By 1956, Italy was experiencing strong annual economic growth. Foreign aid and foreign payments were

down, exports were up and increasing, and for the first time Italy's economic position was markedly better than that of France or Britain. Italy experienced a balance of payments surplus, and the nation's gold and currency reserves were reported to be over USD \$1 billion. The growth was only momentarily halted in 1957 by the closure of the Suez Canal, and despite the crisis, gold and currency reserves doubled to USD \$2.222 billion by 1958. The lira had finally become a strong competitive currency in the global economy, and Italy emerged as an attractive nation for foreign investment. In 1958, Italy enacted policies to allow greater freedom of payment of foreign investors in terms of foreign currency movements (De Rosa 2008).

In the early 1960s, the lira was a strong currency in world markets and Italy continued its economic expansion. Exports increased rapidly, 80% of which were industrial products or services. Foreign investment decreased slightly but Italian investment abroad increased and Italy continued to amass significant currency reserves. By 1963, Italy's share of world trade had risen to 5.3%. This economic integration allowed the Italian economy to expand at a more rapid rate, while enjoying a continued influx of foreign capital into the country.

The early 1960s are often referred to as the era of Italy's "economic miracle". An unprecedented level of economic development was achieved with growth rates never to be reached again (De Rosa 2008). In the late 1960's, Italy experienced a steady outflow of capital and a concerned government attempted to curb this process. Policy makers opted to increase public pensions instead of increasing investment in physical infrastructure and human capital. This boosted gross domestic product, but accelerated

price increases that fueled social tensions. Foreign trade was not affected, however, and once again in 1968 Italy risked currency devaluation.

Capital flight in the late 1960s could be explained by several factors, such as higher international interest rates and lower rates of taxation abroad. There were also additional serious domestic social problems that rocked the nation at the time including severe labor conflicts and protests over the Vietnam War. This dealt a real blow to the developed regions of Italy, and more importantly frustrated efforts of the SIDF to engineer the long awaited economic rebirth of the South (De Rosa 2008).

The significance of labor conflicts in the late 1960s is evidenced by the economic stagnation throughout much of the nation in 1970 and 1971. Once again, the currency was devaluated and the country dealt with another inflationary spiral and the subsequent flight of foreign capital. The paradoxical problem with Italy during this time period could be summarized by the fact that the country possessed sizeable foreign currency reserves, yet it was unable to employ them profitably. The country exported skilled workers and capital, and as a result a great “brain drain” of 2.2 million people from Southern Italy occurred. The nation quickly found itself in debt, but was simultaneously outsourcing capital and skilled labor to the international community. De Rosa (2008) blames political strife and inadequate material and social infrastructure investment during this period as the cause of the paradoxical situation. De Cecco (2007) states,

“Labor laws were passed in the early 1970s which introduced long-needed workers’ protection measures, but their range of application was restricted to larger firms (i.e., those employing over 15 workers). This created an incentive to break down production into very small units, a tendency strengthened by serious and continuing labor unrest in industry during the same period.”(De Cecco 2007, 767)

During the same period Italy was also rocked by terrorist attacks by the *Brigate Rosse* and other sectarian groups that were both politically powerful and dangerous. Large industrial plants in the North of Italy were repeated targets. These attacks forced firm owners and workers to flee. Investors shifted to luxury housing construction with guaranteed renters, or alternatively, exported capital to safer foreign havens. This trend affected the structure of the Italian economy so much that long term investment patterns were changed and new sectors developed in which a high level of human capital was not needed. Contrary to the old system which required large numbers of specialized engineers from polytechnic universities in the North, the new sectors that developed were composed of small-scale firms that relied largely on lower cost and available secondary education graduates (De Cecco 2007).

Ministries of public works, agriculture and education faced declining budgets for many years and these budget deficits also fostered conditions for economic decline. Italian industry had not modernized and had remained stagnant in the 1960s and early 1970s when compared with the other European nations. Economic growth slowed to 1.4% in 1971. In 1975 the Italian economy recorded negative growth for the first time since World War 2. There was a meager recovery briefly in the late 1970s as a result of government-induced restrictive measures including taxes on public services. Inflation dropped, while growth in annual labor costs slowed and prices of imports decreased. The economy began to recover and industrial output, GDP and foreign exchange all registered positive growth (De Rosa 2008). These improvements would prove to be short-lived.

The early 1980s continued with many of the same economic issues that Italy had faced in the late 1970s. Economic stagnation, a growing budget deficit, energy import

dependence, and high labor costs continued to plague the nation. One solution to a part of the problem was the development of a dual-labor market. This dual-labor market was comprised of formal and informal channels of employment. The formal labor market boasted one of the most progressive systems amongst Western nations. Indeed, it was on the same level as many of the most highly developed countries in the world. Italian formal labor markets were characterized by superior wages and working conditions, as well as workplace equality between men and women. The informal market was closer akin to the black market, with all labor protections and regulations ignored. This became one of the reasons for the growing economic polarization between the Northern and Southern regions of the country. A major factor in the North/South divide was that the North had a very high percentage of the population employed in the formal labor sector. The South instead struggled with lower tax revenues and ineffective regulations as a result of a labor force primarily situated in the informal sector. Central and Northern Italian firms could automate processes, and in turn be privy to lower labor costs. The South had smaller firms more dependent upon “off the books” hiring, lower wages and no social security costs. There were inherent gaps in the quality of human capital that developed as a result of this structurally-induced divide.

There were several other developments in the 1980s worth noting. First, small (less than 100 employees) and medium (less than 500 employees)-sized enterprises began to “take over” Italian industry. Smaller firms accounted for a larger share of labor as larger firms began to contract. This important shift characterizes Italian industry to the present. In the first half of the 1980s, then, there was another restructuring of the Italian economy. Sectors such as mining and chemical production that were previously

important began to decline in terms of the make-up of the Italian economy. The same declining trend held true for the traditional manufacturing sectors of food, textile, and leather industries. Technology research, metal industries, metal products, precision engineering, engineering instruments, electronic repair and high end watch manufacture became the main industries of the economy. This particular restructuring of the economy furthered growth in the North and resulted in further contraction in Southern industry. Production of mechanical parts and components was decentralized, in order to reduce costs of operation. Between 1970 and 1986, Italy ranked as the second economy behind Japan in reducing operating costs. The nation saw an increase in employment, labor productivity, and manufacturing output between 1986 and 1991, but these gains were concentrated in the North. In addition, the late 1980s (1987-1989) witnessed the greatest number of foreign acquisitions and Greenfield investments in Italian history. This surge in foreign direct investment (FDI) was short-lived however, and as a result the following years 1990 and 1991 registered a sharp decrease in inward FDI (Roberto 2004).

The Italian government conducted a wide-ranging industrial census in 1991. The census covered many topics, but of particular interest was the data concerning employment numbers per firm. The census found that in total, industrial firms with ten or more workers employed nearly four million workers. A large portion of those employed in this range were working in medium-sized firms with between 100 and 500 employees (875,749/4,000,000), and large firms that employed more than 499 employees (1,176,564/4,000,000). This meant that more than half (2,823,436/4,000,000) of the industrial labor force was employed in small to medium-sized firms, a pattern that began

to characterize how Italian industry would look at the turn of the 21st century (De Rosa 2008).

Industrial output was up by 6.8% in 1993, a rate greater than that for the United Kingdom, Germany and France. However, Italy saw a sharp increase in unemployment in 1992 and 1993. Regions in Northern Italy were plagued with skilled labor shortages while most of the regions in the South had high unemployment rates. This paradox reflects how, during this period, labor markets in Italy were highly inflexible in terms of labor mobility (Roberto 2008). Contrary to all of the development projects aimed at promoting regional equality, the census in 1991 confirmed the growing North/South gap. Southern economic growth was increasing at the same rate as the Northern and Central rates, but over the long haul, weaker growth was not enough to close the gap. The South only marginally contributed to the increase in industrial output. In the early 1990s, weaker regions were characterized by greater proportional agricultural activity with respect to the total industrial output structure and thus, slower economic growth (De Rosa 2008). During this time period, the spatial distribution of industry was still very uneven, with the South responsible for only 17.5%.

Regional inequality continued to plague Italy and deter the nation's ability to compete with other European nations over the total share of incoming FDI. In order to meet the challenges posed by foreign competition, Italy was forced to abandon controls on exchange rates and promote incentives to strengthen and modernize its financial structures. During the 1990s, the European Union (EU) became the largest recipient of multinational activity. This being true, Italian regions managed only to attract a small share of the total FDI moving to the EU (Benfratello et al. 2005). Abandoning controls on

exchange rates and financial regulation meant that households and firms could invest freely in any currency. Italian firms could now hold accounts abroad or even invest in foreign currency in Italy (De Rosa 2008).

The lira was devalued in 1991 as a result of a recession, and labor costs were reduced. Italy began to recover and as a result, Italian exports increased in 1993. The currency devaluation did not prove effective for long. By 1995 the total GDP had declined, the budget deficit had grown to 10% of GDP and the inflation experienced by Spain and Portugal was mirrored in Italy (OECD 1997). This decline in growth could be attributed to further devaluation of the Italian currency and deterioration of the ability to compete internationally in the race to continuously attract new foreign direct investment (Navarra and Mudambi 2003).

In 1997, Italy finally dealt with its inflation through government intervention, and began to approach performance levels of other EU countries. Enforced stabilization policies were responsible for alleviating inflation, while reducing budget deficits and interest rates bringing them in line with criteria mandated by the EU. By 1998 Italy had managed to become one of the eleven founding members of the European Monetary Union (EMU), putting an end to the continuous devaluation of the lira but also losing any comparative advantage that Italy once enjoyed (OECD 1998). At the turn of the 21st century, growth moved towards the EU average. One direct result of the growth was the reduction of nationwide unemployment and an increase in Southern regional growth that ended the long period of stagnation. EMU benefits for Italy included more affordable credit, as well as lower public debt interest payments.

The growth was again short-lived however as exogenous events in 2002, (a global economic recession), once more slowed the Italian economy. Global economic crises of this nature made the weaknesses in many nations' economies quite apparent. The crisis quickly exposed Italy's sluggish growth rates and an Italian reduction in global competitiveness. Clearly, Italy needed new and innovative firms, as well as foreign capital investment in order to compete with other developed nations. To do this, it needed to dismantle more barriers to entry and economic growth (OECD 2002).

The greater half of the 2000s saw Italy still recovering from the economic shock of the world crisis in 2002. Italy has attempted to break down investment barriers, and subsequently has dealt with its inadequate levels of output, stagnant living standards, and limited educational reforms. The quality of its human capital and technological innovation, however, rendered it non-competitive with other nations (OECD 2005). These and other development indicators were lower than normal for an advanced developed nation. Realistically, the problems in the economy have continued up to the end of the first decade of the 21st century. Italy continues to face low formal labor sector participation, especially in Southern regions. As of 2009, Italy was once again engulfed in a sharp recession along with the rest of the world economy. In short, the first decade of the 21st century was a decade of slow productivity growth and deteriorating competitiveness (OECD 2009).

Italian Industrial Structure

This section of the chapter provides a more in-depth look at Italian industrial structure. In order to accomplish this effectively, it is necessary to once again return to the decades after World War 2. In the early 1960s at the beginning of the 30 year

currency devaluation cycle, Italy gained an increased share of world markets and became a bigger player in the global economy. This period brought significant economic restructuring, as the nation shifted from a concentration on large-scale enterprises to an industrial sector characterized by small and medium-sized producers and firms (De Cecco 2007). Industrial districts composed of small and medium-sized firms similar to those found in the United Kingdom developed as a result of the economic restructuring in Italy as well. Industrial districts remain a staple of Italian industry, and over time larger firms have become scarcer, although the industrial districts remain.

During these initial devaluation cycles, Italian industry began to focus on light industry and less on high-technological, strategic goods needed for the self-sufficient nature of the country during the imposed autarky. The latter type of industry was heavily dependent on public demand and thus protected from foreign competition. New Italian industry found itself relegated to sectors that needed low cost labor with high skill sets. Northern Italy possessed excellent human capital, and in this macro-region, there was a large labor force quite capable of becoming small-scale producers of light industrial goods and their parts and components (De Cecco 2007). The modification of the economy would continue into the 1970s when Italy was rocked by domestic strife.

The 1970s were tumultuous years in Italy and this decade brought further changes in Italian industrial structure. As noted earlier, terrorist attacks ravaged the North's industrial sector. As a result, labor laws were passed which introduced worker-protection measures, but coverage of the laws was extended only to larger firms. Italian industry shifted as firms began to break down their production into smaller units in order to avoid the new protection measures and seek greater per-worker productivity. These trends

produced long-term shifts in Italian industry that contrasted significantly with what was happening in other European nations at the time. While other European nations continued to modernize, De Cecco (2007) posits that Italy seemed to regress.

“The new sectors, for instance needed almost no university graduates, while the old ones had made use of most of the engineers educated in the northern polytechnics, which had been founded as an imitation of their Swiss and German counterparts in the last part of the nineteenth century. The new small-scale firms relied instead on the good primary and secondary school systems that the Italian state had created in the first century of its existence.”(De Cecco 2007, 767)

Other nations of the EU dealt with the problems of declining competitiveness by strengthening their currencies, investing in high tech industries, and making parallel investment in their countries’ human capital. Ideally, when a gap is created by developed nations advancing into new sectors, developing nations fill the void. While most of the Western European nations advanced, Italy “plugged the gap” and took advantage of its devalued currency and abundance of human capital to become the best in those industries “passed over” by other nations. For many decades this is how Italy exploited its comparative advantage. In the wake of currency devaluations, after roughly 30 years, Italy was able to join the European Monetary Union. Planners in Italy saw this as a way to stabilize the currency and protect the nation from economic shocks.

Unfortunately, since Italy’s entrance into the organization, the effects on Italian industry appear to be largely negative and Italy has since lost what comparative advantage it once held. Exports as a share of GDP fell from 4.5% in 1995 to 2.9% in 2004 (De Cecco 2007). This is not to say that Italy is no longer an industrial power. To this day, Italy still has the second highest concentration of industry in Europe second only to Germany. It is quite obvious that what happens to industry in Italy is quite important and indicative of the nation’s economic future.

As noted earlier, prior to the entrance of Italy into the EMU, large scale industry witnessed a general decline. Firms employing more than 500 people fell from 30% to 15% in their share of the total manufacturing employment. France, the United States and UK witnessed declines but they were much smaller. Germany was only marginally affected. Even Italian multinational corporations (MNCs) employ a smaller share of workers than a decade ago. Italian corporations with more than 250+ employees worldwide currently make up only 27% of manufacturing employment share. The largest Italian MNC, Fiat, has seen a significant decline in scale since 1989, the year in which it was the 10th largest industrial group in the world and the 7th largest manufacturing group. Fifteen years later the firm had fallen to 23rd and 16th place respectively in the global market (De Cecco 2007).

Italian industry can thus be characterized as composed largely of small and medium sized firms. This effect is compounded by the failure of the remaining large scale corporations to maintain market share (De Cecco 2007). In the 2000s these declining large firms employed a smaller average number of workers than in the 1990s. This reduction of large-scale industry started decades ago in the 1960s and 70s when Italy's largest firms were diluted by competition with state-owned enterprises in the electric, oil and petrochemical industries. Italian industrialists also witnessed the nationalization of several corporate giants which resulted in a flight of capital into other areas (De Cecco 2007). Instead of further exploiting the Italian comparative advantage in a few critical sectors, investments were diversified and Italians lost any specialization benefits.

“All over the world, like was buying up like (industry) and rationalizing, as a means of resisting the onslaught to be expected from newly industrializing

countries. In Italy, the opposite happened: The state gave big industry a chance to dilute its interests in its core sectors, which it feared would be under attack from foreign producers and to diversify into presumably competition-sheltered utilities...”(De Cecco 2007, 776)

This process marked the decline of large scale industry in Italy. The result was an industrial sector significantly composed of small and medium-sized firms. These firms produce approximately 13% of GDP annually for the country. Further, they are often characterized by family ownership and the propensity of never going public in order to reduce transparency. These small and medium-sized firms are often situated across space in “local industrial systems” or, more commonly, Marshallian industrial districts (the two will be used interchangeably).

Local Industrial Systems/Marshallian Industrial Districts

Alfred Marshall was an economist who wrote influential text titled, “*Principles of Economics*” in the 1920s. In this work, one of the topics very relevant to the present study was his theory related to agglomeration economies, more commonly referred to as “Marshallian industrial districts”. These small agglomeration economies form as firms began to locate themselves in close geographic proximity with other firms in related sectors of the supply chain in the production cycle. This high degree of specialization and complementarity generate dynamic processes of innovation and inter-firm knowledge spillovers (Menghinello, De Propris and Driffield 2010). These local industrial clusters differ in certain ways from their monopsonistic cluster counterparts. Monopsonistic clusters can be likened to a “hub and spoke” formation, envisioned as a bicycle wheel, in which one or a few buyer firms are surrounded by many suppliers. This concept differs from Marshallian districts, in which a geographic space is populated by firms producing

at all stages of production. Each firm has equal importance with no central hub (or firm) making decisions (De Propris 2001).

Marshallian industrial districts (MIDs) and other local industrial systems share several advantages over their alternate counterparts. For one, firms are privy to the advantage of systemic flexibility, manifested by a wide availability of buyers and suppliers interacting with any given firm. Firms also exploit the advantage of an efficient and specialized local labor market and diffuse sense of trust (De Propris 2001). A firm's capacity to innovate greatly improves if cooperation related to innovation with other firms occurs (De Propris 2002). Other advantages of MIDs can be described as time-static, time-dynamic, and space-dynamic agglomeration externalities. Time-static externalities refer to the cost efficiencies and formation of specialization of local systems or cities in the localization of industry. Time-dynamic externalities refer to the development of subsidiary activities in both manufacturing and the services through variety in production. The development of complementary industries, through variety in employment and accumulation of prior knowledge, impacts local productivity and falls into the category of time-dynamic externalities. Finally, space-dynamic externalities emerge as a means of fostering reproduction of skills, the circulation of knowledge, and the use of specialized machinery (Lazzeretti and Capone 2009).

Spatially, Italian industry is characterized by small areas of agglomeration and numerous industrial districts. Often, LIDs can be found in low-tech sectors. One notable industrial district, for example is the ceramic tile industry in Sassuolo. It is no surprise however that industry is situated in this spatial distribution. Current research often links the small size of Italian firms and the specialization of economic activity in districts

together (Piscitello and Sgobbi 2004). Industrial districts have played a very large role in the economic development and performance of the Italian economy, especially as far as exports are concerned. By way of illustration, Figures 1 and 2 represent clusters of manufacturing and FDI subsidiaries found in the Emilia Romagna Region. Dei Ottati (2008) found that Italian industrial districts consistently outperformed large enterprises in Italy, and have been largely responsible for the existing positive externalities in the Italian economy (Ottati and Grassini 2008).

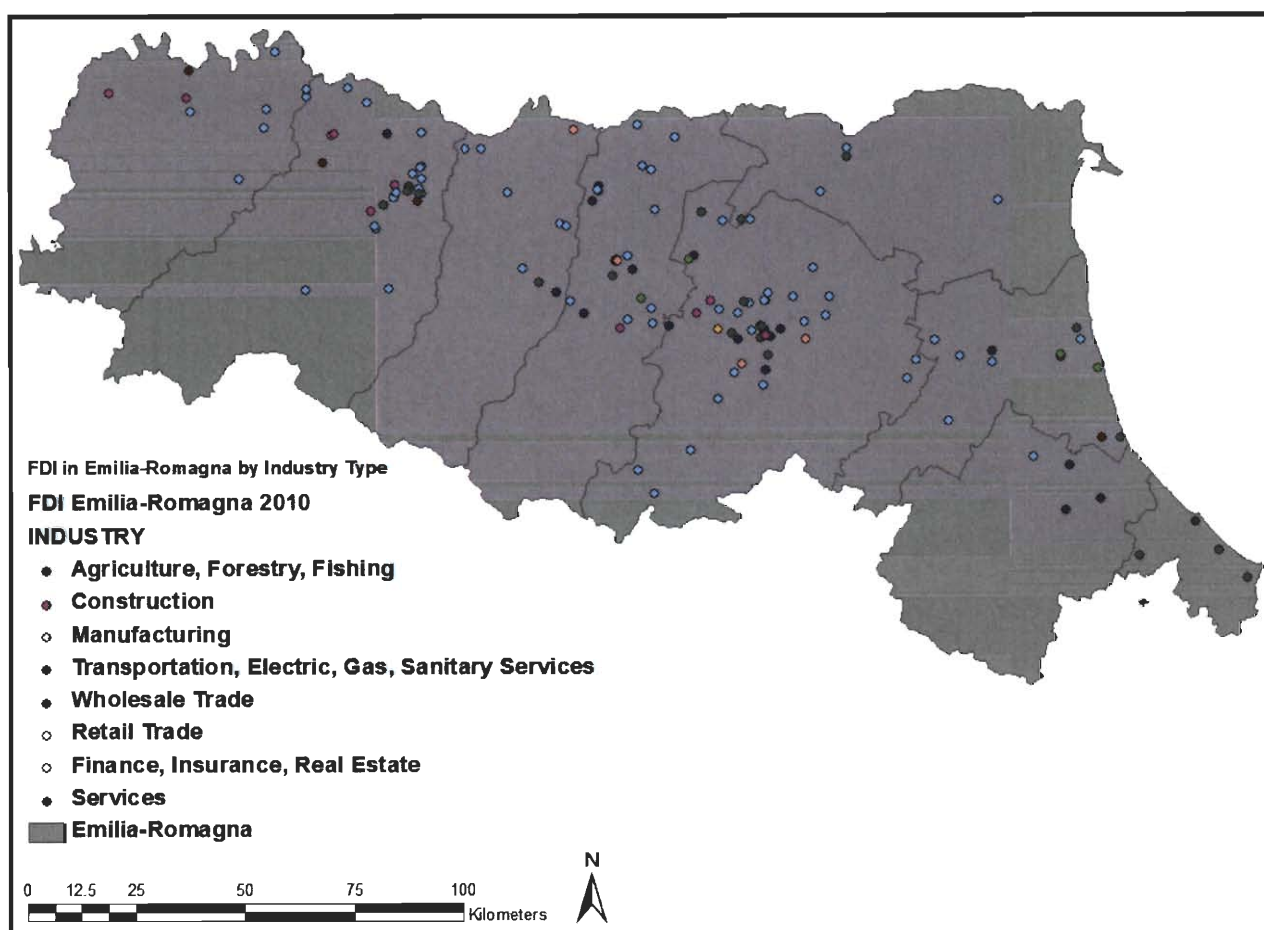


Figure 1: Emilia-Romagna Foreign Affiliate Clusters by Industry.

Source: Created by author

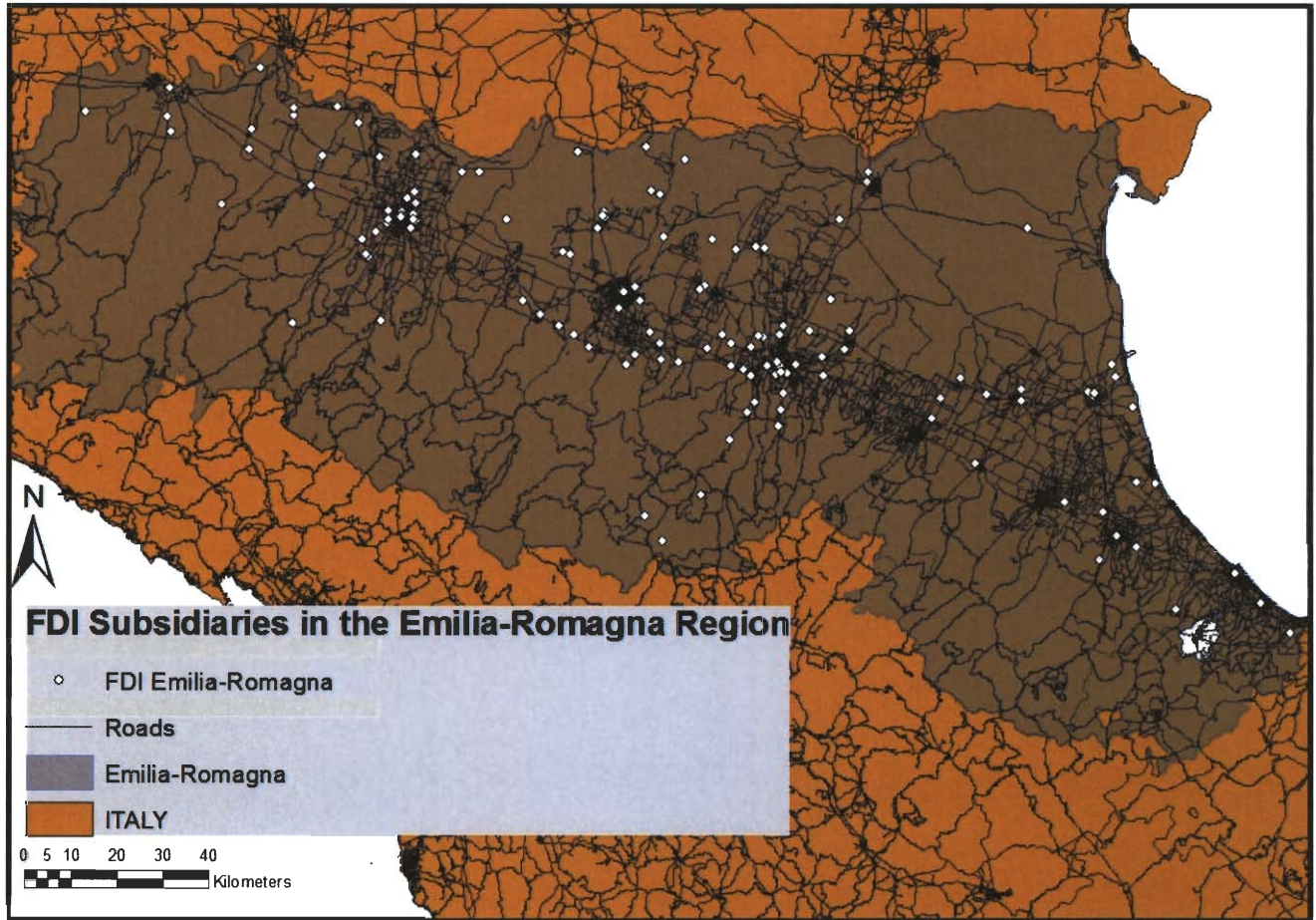


Figure 2: Emilia-Romagna FDI Subsidiary Clusters.
 Source: Created by author

The Roles of Corruption & the Traditional North/South Developmental Divide

The previous section summarized the structure of Italian industry. The current and remaining sections will cover issues more indirectly related to the Italian economy. Specifically, the present section focuses on corruption and the North/South divide, while later sections will introduce several other topics related to Italy's current economic development efforts.

Corruption in any society represents a key element in the inability of the region or nation to take full advantage of development opportunities (Del Monte and Papagni

2007). Typically higher levels of corruption in a society are linked to low economic development. Lower levels of investment in the public and private sector, lower levels of trust, weaker economic context, serious social conflicts and overall lower competitiveness can be products of corruption (Canonico et al. 2010). Many sources posit that Italy has been plagued by rampant corruption in the government at the federal and regional level for many decades (Canonico et al 2010 and Del Monte and Papagni 2007). Corruption as related to Italian industry began to come to light as a serious problem however, in the 1960s and 1970s. Government proved unable to curb crooked practices until the early 1990s during the “*Mani Pulite*” (Clean Hands Investigations). The “Clean Hands Investigations” came at a time when Italians witnessed the growing budget deficit that was a result of inefficient, corrupt governance and demanded change. Italy has traditionally had a much higher rate of corruption than other Western European nations. Political corruption involving legislators, bureaucrats, businessmen and bribery are still a very real part of the Italian political process (Del Monte and Papagni 2007). The concept of *clientelismo* has allowed, and often still allows, groups of citizens linked directly to politicians to reap high rewards through special laws or through political appointments.

The purpose of *clientelismo* was not to increase efficiency or recruit experts, and the process served only to further fraudulence. DeMonte et al. (2007) speculates that one of the reasons corruption increased through this process revolves around decentralization efforts initiated by government programs in the 1970s and again in 1985. During the 1970s, the size of the government increased as the power of regional governments increased. Re-election to local offices often depended upon favors to clients, and as a result the absolute value of bribes required for entry increased to new entrants. This of

course reduced incentives to allocate resources efficiently and made politicians irresponsible (Del Monte and Papagni 2007). Anderson describes the situation in Southern Italy quite accurately in the following quote...

“The elected leaders typically are the local well-to-do. Often they are corrupt, caught up in a system in which, to be successful, political expediency rather than high ideals are allowed to shape policy. To get power and keep it, politicians administer patronage, doing favors for their supporters at the expense of others. Further, South Italy is an area in which criminal syndicates such as the Sicilian Mafia have been powerful for generations. Where criminals control politicians, they direct public investments into private gain.” (Anderson 1973, 59)

Beyond individual corruption, powerful criminal organizations still exert their control over many industries such as healthcare, waste management, public works and financial services. These firms obtain resources and funds that stem from illegal activities, but on the surface operate within the confines of the law, functioning in a legal market (Canonico et al 2010). The situation is complicated in Italy as corruption remains a large contributor to GDP of the country (Schneider and Enste 2012). In the wake of anti-corruption measures taken in 1993, for example, over 1,300 business people, civil servants and politicians were arrested that were believed to be involved in political scandal or in collusion with organized crime groups such as the *Camorra*, *Ndrangheta* and the *Mafia*. Regional authorities were also separated further from the federal level which had the effect of making lobbyist groups less powerful in the political process (Del Monte and Papagni 2007).

In some areas, corruption has acted in such a way to desensitize the population and acts as a self-perpetuating cycle creating further incentives for scandal. A major problem that still exists in Italy and especially in the Southern regions is the sense of hopelessness or weakening of loyalty to civil and organized society. Robert Putnam

writes about the civic level of communities or regions, in which the performance of regional governments and the quality of socio-political life determines the quality and presence or absence of social capital in the region (Putnam 1994). Low economic development and low social capital lead to a region being “poor” in civic terms. In order for a community to be more civic, interactions among the populous must be based on trust in civil institutions. This trust applies not only to the general interaction between the individuals but also in the institutions that make up the society (Putnam 1994).

Social Capital and a Short History of Southern Italy

Anderson (1973) describes the South of Italy as operating under a conceptual system known as “Amoral Familism” or the self-interested, family-centric society that sacrifices any societal good for that of the short-term gain by the nuclear family unit (Banfield 1958).

“South Italians do not usually commit themselves to voluntary associations and do not achieve much through them. Sad experience has taught them, it appears, that if they place their trust in leaders and organizers, they may expect to be cheated and deceived.”(Anderson 1973, 59)

This propensity towards civic distrust is completely related to many factors that are as recent as the development of organized crime in the region, and dates back as far as the Norman kings who ruled Southern Italy in medieval times (Del Monte and Papagni 2007). The experience of Southern cities and Mediterranean republics in Italy initially shared many similarities with those of the Northern communes. Foreign invaders during medieval times changed the South of Italy forever (Baldoli 2009). The monarchies of Southern Italy ruled their kingdoms under a form of absolutism. Under these reigns, protectionism of industry and commerce was common and foreign products were

virtually excluded. The economic influence of the bourgeoisie and nobility was crushing to the peasantry, and these powerful groups often extended land grants and other benefits amongst each other. This had the effect of reinforcing the belief that any initiative undertaken by the populous would be futile (King et al. 1983). Indeed Banfield posits, “Centuries of oppression have left the peasant with a pathological distrust of the state and of all authority.”(Banfield 1985)

Prior to unification of the country in 1861, Italy was comprised of various city states, republics and monarchies. Unification brought many problems. Former kings refused to recognize the newly formed state in an effort to preserve their kingdoms. The papacy forbade Catholics to participate politically as a result of ecclesiastical lands being seized. Following a trend of political corruption and *ad hoc* solutions to problems, the North/South divide seemed to only get worse (King et al 1983). Papal lands were confiscated after unification, but the fledgling government did not engage in agrarian reform and distribute the land to the peasantry which made up the majority of the poor South. These lands were instead re-appropriated to large already powerful landowners. The land could have been used to develop a Southern Italian agricultural export base. Instead, when constructed, infrastructure was only built as a means for extending Northern industry into the South (King et al. 1983).

One major problem was that the unification administrative process was largely handled by the *Piemontesi* (peoples of Piedmont) in the North. This was often managed tactlessly in an almost colonial way, rather than one that had any potential to promote true unification. Southern Italy was left poor, with few options. Crime and poverty increased, and mass emigration began almost immediately after unification and actually

continued until World War 2. Almost all Southern industry was wiped out as a result of a lack of internal customs barriers until World War 2. This disconnect in understanding between Northern and Southern Italians existed then as it does now. Only during post-war reconstruction, did the new Italian government come up with a plan named the “*Cassa Per il Mezzogiorno*” (cash for the mid-day). This plan was aimed at reducing the economic gap between the North and South, seeking to raise the South to a level of development that mirrored more advanced European nations (King et al 1983). To this day, Italy has been largely unsuccessful at bridging the gap between the North and South. While there was some convergence between the two regions during the period from 1951 to 1973, at present many scholars believe the divide is back to post-war levels (Gonzalez 2011).

Italian Physical Geography in Brief

For many years “pseudo science” has attempted to explain the South’s inability to converge on economic levels of the Northern regions through environmental determinism. Bethemont et al. posit that these deterministic explanations are patently illogical. According to “theorists” defending this regional inequality as “natural”, Southern Italy is plagued by mountains, widespread erosion, climatic vagaries, inadequate unstable soils and no valuable natural resources in modern terms. Firstly these conditions are not very different from much of the landscape in the Northern regions. It is also important to recognize, as a key point of fact, both Naples and Sicily in the South thrived economically at various points throughout history, in particular during medieval times (King et al 1983).

What can explain the continued lag of the Southern regions? It is a multi-faceted issue beyond the scope of this study that nevertheless still affects the economic prospects of the Southern regions and the nation of Italy today. The current argument put forth by Fothergill in 2005 speaks to the necessity of regions developing comprehensive strategies to attract investment. In the current globalized world, this speaks directly to policies that promote FDI. Fothergill posits,

“Weaker regions are doing badly because they do not provide the right business climate for firms. Therefore, the solution is to address the shortcomings in the business environment so that performance in the weaker regions is brought up to the level of the best. Redistributing existing regional economic activity is specifically ruled out.”(Fothergill 2005, 661)

It is important to note that when speaking about “The Southern Question”, Southern Italy is only underdeveloped when compared with Northern Italy. The South certainly does not exhibit the low standards of living characteristic of developing nations. For example, Southern Italy actually has higher living standards as compared to much of Greece and Spain (King et al 1983). Recent years have seen new policies designed to bridge the gap. New policies typically focus on fostering competitiveness, while promoting social and institutional capital development as well as underplaying divide discourse (Gonzalez 2011). How this new policy will impact Italy’s poorer regions remains unclear in 2012.

Italy’s Current Economic Climate

Italy has recently emerged from the deep recession caused by the global crisis of the last decade. Most scholars predict that Italy is slated for a sluggish recovery (OECD 2011). The government has just been temporarily replaced by a “technocratic” administration appointed by Mario Monti in 2011. Italy has long been burdened by an

ineffective regime led by Silvio Berlusconi for nine non-consecutive years (1994-1995, 2001-2006, and 2008-2011). During his multiple terms as Prime Minister, Italians experienced a dilapidated economy and an ever-growing national debt (The Economist 2011). Current debt problems have led many in the EU to question whether or not Italy will go the route of Greece and “spiral out” of economic control. Currently, the EU does not possess the financial resources to “bail” Italy out (The Economist 2011). Under EU pressure, current Italian fiscal policy is slated to exercise expenditure restraint (OECD 2011). Fiscal measures are now a necessity as 2009 debt reached 97% of the country’s GDP (debt is now 100% of GDP). On the positive side, recent year’s investment, R&D, and educational attainment have improved relative to Germany’s position (The Economist 2011). It seems that there will be difficult times ahead for Italy; however the newly appointed government led by Mario Monti seems to be promising.

Most importantly for the research, it seems clear that any resurgence in the Italian economy must come with improvements in industrial efficacy and productivity. Both of these conditions are at least in part, to be determined by changes in the nation’s FDI and the spatial patterns exhibited by this FDI in years to come.

CHAPTER 3

LITERATURE REVIEW

History of FDI

Foreign Direct Investment (FDI) is a driver of exogenous growth for many nations. Many researchers believe that in recent years, FDI has replaced international trade as the main driving force associated with global integration (Raff and Ryan 2008). Some scholars posit that openness to trade and FDI are now the major sources of economic growth in poor countries (Maertens et al 2011). Others contradict this assertion, and in the academic community, research related to FDI often remains highly contested. It is undeniable that the most profound increase in flows of FDI can be seen in developing nations. Emerging regions have experienced a six hundred-fold increase in inflows over the last thirty to forty years, swelling from roughly USD \$10 billion in the 1980s to over USD \$1000 billion in the 1990s (United Nations 2006). This chapter surveys the literature and presents thorough definitions and interpretations of FDI and its benefits. It also places the current research project's methodology and data collection in context within the greater body of research related to FDI.

The earliest examples of FDI can be found over a hundred years ago. Prior to the 20th century, international business functioned in a manner that was quite different from contemporary business practices. Before 1914, few firms had control of international subsidiaries, and large firms were unable to manage affiliates abroad effectively. United Nations Conference on Trade and Development (UNCTAD) reports indicate that before the great wars of the 20th century and the great global depression, multi/trans-national corporate activity could be summarized by "arm's length" trade in goods and services

between independent firms through the global movement of portfolio capital and simple FDI (United Nations 2006). Post-War technology and transformation forever changed the nature of overseas investment, giving investors the power to control their assets from greater distances. Developments in transportation and telecommunications technology were responsible for the reduction of theoretical geographic space on earth. These advances and changes in international trade law and liberalization accounted for the surge in FDI and trade in the late 19th and early 20th centuries.

The first wave of globalization occurred at the end of the 19th century. As previously noted, this wave came as a result of advances in steam power and trans-Atlantic cable communications. In terms of FDI at the turn of the 20th century however, integration between international investors and most economies remained quite shallow. In today's international system, trans-national corporations (TNCs) have the power to coordinate and control subsidiary operations simultaneously in multiple nations, even if they don't have full ownership of these firms. This primary aspect of control allows the corporation to oversee many facets of the production of goods and services. The TNC can also have the power to manipulate international trade which can have a value-adding effect within all portions of the TNC's networks (United Nations 2006). As mentioned previously, these changes in TNC characteristics and activities can be explained by advances in the telecom industry, air freight and compartmentalized container shipping, as well as in trans-governmental organizations and trade liberalization through bilateral investment treaties (BITs). BITs are agreements between two states establishing terms for investment between private or state enterprises of one state in another state.

Before the Second World War, investors were not protected by international investment treaties and the risk for international investment was greater. Following the Great War, Western nations such as Germany and the United States began forming bilateral friendship and investment treaty agreements (Salacuse 2010). New policies put forth by the United Nations attempted to prevent another global conflict by integrating each nation economically and developmentally. European nations were quick to establish bilateral investment treaties (BITs) with former colonies and as a result, most developing nations were initially quite skeptical as to their role in the international economy at this time. Leaders of economically weaker states argued that capital exporting nations such as the United States, Great Britain and Germany used BITs to insure hegemonic stability (Salacuse 2010).

In 1962, patterns of FDI were forever changed through the codification of United Nations Resolution 1803, which provided countries with a legal shield against any actions by foreign investors that would infringe upon economic sovereignty. In a very real sense, a divide emerged between capital-importing and capital-exporting nations that created an uneven field of play (Kaushal 2009). On the exporting side, many developed nations supported increased FDI and trade liberalization. “Openness” was viewed by developed nations as a means to facilitate the flow of capital and technology among states in the hopes of promoting economic growth. Exporting nations pushed for a deeper integration of all actors in the global economy. However, these nations needed assurance that host states would comply and treat foreign investors in conformity of international standards. Capital importing nations however, had different reasons for signing BITs. The primary motive was to increase the amount of capital and technology that would flow

into their territories (Salacuse 2010). In many ways, the codification of the United Nations Resolution 1803 was a response to colonial era concession rights, which typically made developing nations dependent on foreign capital from one or two nations.

The 1970s brought further changes to the role of FDI in the international economic system. The effectiveness of the 1973 oil embargo by OPEC nations allowed many petroleum-rich nations to raise the price of oil, the most valuable commodity traded at the time. This prompted many developing nations to appeal for what came to be called the New International Economic Order (1974). In actuality, this proposal was an improvement on the Breton Woods system that emerged prior to the end of World War 2 and gave developing nations greater control of all multinational enterprises within their territories (Kaushal 2009). Paradoxically, the BIT regime continued to expand worldwide. In 1981, the United States of America, being the single hegemon of the era followed the Europeans' example, and formed 23 investment treaties in its own BIT program. South-South" BITs, or BITs specifically between developing nations (most developing nations happen to be in the Southern hemisphere) also increased among many nations during this period.

Despite resistance by developing nations, the continued expansion of FDI throughout the international system persisted for several reasons. The International Monetary Fund (IMF) and World Bank consistently promoted neo-liberal programs aimed at assisting developing nations on their path to economic growth. During the crisis of the 1980s, many nations fell into economic troubles and their economies lapsed into long-term budget deficits. As a result, these nations were compelled to adopt regulations dictated by Structural Adjustment Programs (IMF) and Structural Adjustment Loans

(World Bank) in which greater hospitality to foreign investors became a key stipulation. The IMF sought to grow national economies as pieces in the greater international economy (Kaushal 2009). In other words, “all boats were expected to rise with the tide”.

During this period of recovery, priorities shifted quickly for many nations from preserving sovereignty, to attracting foreign investors. Kaushal posits,

Many states, however especially developing nations faced a prisoner’s dilemma in which it was optimal for them as a group to reject the Hull rule, but in which each individual LDC was better off ‘defecting’ from the group by signing a BIT that gives it an advantage over other LDC’s in the competition to attract foreign investors (Kaushal 2009, 503).

The Hull rule, named after former American Secretary of State Cordell Hull in the 1930s, relates to the ability of firms to demand compensation for assets seized by host-country governments. It was put forth into international law in order to protect international investors. Most FDI came from developed nations and therefore introduced an inherent policy bias supporting governments and firms from developed nations.

Global FDI has increased at an incredible rate since the 1950s and reached its apex in the last decade. In 2007 FDI inflows reached a record level of USD \$1.8 trillion, eclipsing the value of total trade in goods and services and clearly becoming a major force in the worldwide allocation of capital. FDI is now widely recognized as a global force driving integration among nations and regions in the international system. Still, the benefits of FDI remain a contested issue that needs to be studied in greater detail.

FDI Research

There is an abundance of literature regarding FDI that covers topics such as location determinants, effects on the home and host countries, technology and innovation spillover, and effects on poverty alleviation. As one of the largest active forces of

globalization, FDI has been a “hot topic” in the literature in recent decades. Evaluating the myriad effects of FDI requires an in-depth understanding, not only of the conceptual structure of MNCs or Global Production Networks (GPN), but also of the effects of globalization and the motivations of corporations acquiring direct investments abroad. This section reviews critical issues that are essential for not only understanding FDI research and the conceptual basis of their operationality, but also reviews the basic concepts that are the foundation of the current research.

Current State of FDI in the World Economy

To understand the contemporary importance of FDI in the international system, it is necessary to discuss a number of key facts to show the importance of FDI to the global economy. In 2007, global FDI reached its highest peak at USD \$1.8 trillion. After the global crisis in 2008, levels declined sharply as national economies and investors dealt with the financial crash. In 2010 as the global economy recovered, FDI flows again increased to USD \$1.24 trillion. This value is still 15% below the pre-crisis average (United Nations 2011). Reports from the United Nations Conference on Trade and Development (UNCTAD) predicted that levels of FDI flows will approach the 2007 level around 2013.

During the last five years, developing economies have accounted for a much greater percentage of global FDI than in the past. What is more noteworthy is that some developing nations recorded high levels of FDI outflows to other developing nations in what is usually referred to as South-South FDI (United Nations 2011). This will prove to be as important as global capital flows from developed nations into developing regions.

What will be the economic outcomes in poorer nations as FDI inflows continues to increase?

In recent years, the role of TNC/MNCs has been expanding in conjunction with TNC/MNC foreign sales, TNC/MNC employment and total TNC/MNC assets. Sectoral changes of FDI in 2010 registered declines in the service and financial industries.

Manufacturing grew to account for almost half of FDI, while chemicals, food, textiles and automobile industries also registered increases.

Modes of Entry

Any given MNC has several options when deciding how to enter a new market. It may set up a plant locally in the host nation or region to sell and produce goods. This is typically known as a Greenfield Investment. The MNC may also decide to completely take over a local firm or purchase minority/majority ownership as an alternate way of entering the foreign market. This allows the firm to access the new market directly, while remaining under the umbrella of the acquired firm. Third and finally, MNCs may seek joint ventures. Joint ventures are characterized by cooperation and synergy between two firms in order to determine individually cost reducing investments that will benefit each firm (Raff et al 2009). The year 2010 saw a surge in mergers & acquisitions (M&A) by MNCs. The growth rate estimated by UNCTAD for M&A transfers was 38%. This number still is only 1/3 of the former peak recorded in 2007. Greenfield investment declined in 2010, but registered a significant rise in both value and number during the first five months of 2011 (United Nations 2011). Inward FDI in Italy is largely characterized and driven by mergers and acquisitions rather than via Greenfield investments (Roberto 2004). This reflects the fact that multinationals investing in Italy

prefer to acquire only partial stakes of Italian firms. This strategy requires less of an investment as opposed to using only the MNCs productive assets alone in operating the firm.

Benefits of FDI for the Host Country

This current study focuses mainly on the effects of inward FDI on the host country, and less on effects of outward FDI or effects to the home country. Therefore, it is most important to discuss the impact of inward FDI on the host nation. One question often found in the FDI literature is: “What motivates a country to enter in a bilateral investment treaty with another and thus receive foreign investment?” Throughout the literature this issue specifically, is the most seriously contested. Generally, it has been established that FDI is increasingly responsible for increasing flows of capital, expanding employment and promoting the introduction of new technologies and innovations in the host country (Mariotti et al 2003). In a study of inward FDI in the United States, Bode and Nunnenkamp (2011) find that inward FDI offers great potential for agglomeration economies, labor pooling and knowledge sharing, as well as human capital externalities.

Most proponents of FDI assert the validity of the endogenous growth theory, which focuses on development of human capital as well as knowledge flows and innovation spillovers as engines that driving growth. Theorists believe FDI to be a positive force in global interconnectedness and development (Bhagwati 2005, Dollar and Kray 2002). Others place caveats on the benefits of FDI. Many claim that FDI functions as an engine of growth best in countries endorsing an export promotion strategy as opposed to an economy based on promoting imports (Ruane and Ugur 2006, Balamoune-Lutz 2004, Greenaway et al 2007). Others have shown that the absorptive

capacity of the host economy is essential for obtaining any type of positive externalities (Nunnenkamp et al 2007). Parallel to this is the propensity of economic growth related to the relative economic freedom possessed by a society or host nation. FDI has been shown to have little, if any, effect on economic freedom. The ability to enhance growth is minimal if the level of economic freedom is not already high (Azman-Saini et al 2010). For these reasons, several studies point to the fact that effects on the host country are greatest in developed nations. Validating this, Alfaro et al. (2010) fail to confirm benefits of growth from FDI in host nations, but posit that growth rates are higher in developed nations where backward linkages are formed between domestic and foreign firms. Alguacil et al. (2011) acknowledge that macro-level instability in host nations' economies will narrow the potential benefits of FDI. The study also finds that in less advanced economies, FDI is the only option to bring international capital into the host nation.

In regards to effects of FDI at the micro scale, there has also been a significant amount of research attempting to value or discern the pros and cons of FDI on the host nation. FDI has shown to have positive spillover effects in Senegal, where FDI in the fresh fruits and vegetable sector supplements household income of workers, which leads to training, technology transfer and increased investments by the local population (Maertens et al 2011). Huang et al. (2011) find in their analysis of middle-income nations that inward FDI tends to help citizens of these nations that already have high-level skills and income, while bypassing the lowest quintile of the population.

Another key point of consideration is related to differences in the type of labor that makes up the workforce of the host region. FDI has been shown to widen income

disparities between urban and agricultural areas by adversely affecting agricultural workers and other small holders. On top of this, urban skilled and even unskilled workers may benefit disproportionately as a result of FDI liberalization and structural reforms in developing economies as most investments are made in cities (Nunnenkamp et al 2007). As a measure of the variability of the findings related to FDI in the literature, a case study of Indonesian inward FDI by Tomohara, and Takii reveal that, FDI can play a large part in reducing the wage gap between domestic and foreign firms. This is especially true in large gap industries where domestic firms are forced to compete with their foreign counterparts in providing equal wages (Tomohara and Takii 2011).

Previously cited research in this section has concentrated on empirical studies of developed nations suggesting that the claims of positive externalities of FDI need to be redefined both qualitatively and quantitatively. McDonald et al. use a logit model regression analysis to study the employment opportunities generated by German firms in Northwest England. This study specifically demonstrates that German FDI in England only generates positive employment effects if the entry mode is Greenfield investment and that newer firms are more likely to generate externalities than older ones. The authors also argue that the employment effects generated are industry specific as well as restricted to firms with only one subsidiary in the region (McDonald et al 2003).

Foreign Direct Investment and Knowledge Spillover in the Host Nation

As discussed in detail in the previous chapter, the Italian industrial sector is admittedly peculiar. It is characterized by small firms in low-tech industries pursuing economies of scale through agglomeration. The most unusual feature of this nation's industry however is the way in which firms are spatially organized. The pattern is

typified by a significant spatial concentration of firms in very small areas or “industrial districts”. Such concentrations have several advantages. Most important of these benefits is the potential speed of diffusion of technical information and the benefits of imitative behavior and informal channels via personal contacts that characterize many industrial sectors in the nation. Foreign investors demonstrate a great understanding of this phenomenon when choosing to integrate into any economy, not just the Italian economy (Falzoni and Viesti 1997). Large multinationals are indeed global “scanners” for both markets and production opportunities. These firms systematically study all world economies, seeking potentially profitable opportunities, while formulating strategies of insertion into the most promising new locations.

Technology transfer often occurs through cooperative agreements between firms, (joint ventures, or merger and acquisition) (Falzoni and Viesti 1997). The potential recipient firm of a new innovative process is usually most interested in the deal. The interested firm may have a better knowledge of a productive process or superior knowledge of process application technology that provides opportunities through insertion in a new economic context. Acquiring this new investment is then exploited for achieving commercial gains. The gains manifest themselves in several ways. These may come in terms of acquiring knowledge about a different managerial culture, or the ability to manage previously unusable foreign legislation and regulations. At the same time, the MNC assesses the new types of machinery needed, identifies new sellers and the potential choices of available raw materials. Finally, the MNC is able to use the increased value-added in the manufacturing of new products to expand its commercial range (Falzoni and Viesti 1997).

Scholars have indeed posited that MNEs are the most efficient mechanism for cross-border knowledge flows in the 21st century. This emergence could be explained by a failure of external markets prior to the development of global production networks in transferring proprietary knowledge to new regions. The knowledge that is transferred is valuable because it is complex, non-codifiable and non-teachable. Resulting added value compels firms to acquire foreign subsidiaries in the process of allocating assets for research and development, (R&D) as well as production and marketing processes between various facilities and locations (Adler and Hashai 2007). The costs of knowledge flows are indeed a major consideration in the locational configuration of MNCs. In their study of knowledge flows, Adler and Hashai (2007) found that high knowledge flow costs and high knowledge intensity increase the dispersion of activities across space. This is relative to low knowledge flow costs whereby outsourcing enables the MNC to relocate its production activities to lower costs regions. This supports additional research that postulates that the higher degree of innovativeness in the corporate culture of the MNC, the more likely that a focal subsidiary will be decentralized (Williams and Van Triest 2009).

Endogenous growth theory dictates that technological advancement is a great driver of growth in regions or states. Spatial knowledge spillovers are at the core of this phenomenon. Research on the causal mechanisms and processes of innovation and knowledge spillover indicate several factors that contribute to the diffusion of technological advances in the host region or nation. Using a two-equation recursive model with panel data for 30 provinces in China from 1998-2005, Ke and Lai (2011) find that MNCs seldom locate their R&D in a region with neighbors with limited MNC R&D.

MNCs are thus shown to favor regions in which there are innovative neighbors that can assist in the flow of knowledge between firms. O’Uallachain and Leslie (2005) use spatial autocorrelation and regression models to analyze trends in patent quantities at the state level in the United States for the period from 1963 to 2000. The authors build upon research that questions how developmentally or technologically lagging states can advance technologically with the goal of “catching up” to more sophisticated ones. Do lagging states converge on more advanced states through imitation of technological processes, and thus attempt to close the technology gap? Alternately, do developmentally challenged states “leap frog” ahead of more advanced states by attempting to innovate and discard obsolete and outdated processes?

The opposing argument would be that divergence between states or regions occurs when lagging areas sustain ineffective policies, infrastructure and institutions. This is critical in understanding the gap in productivity between Italy’s economically dominant North and economically dormant South. O’Uallachain and Leslie’s (2005) study found that geographic proximity plays a crucial role in this innovation spillover between states or regions as skilled professionals learn about advances occurring in nearby companies and research institutions. The results also support a “catch-up” convergence interpretation by which regions or states seek to imitate in order to close the gap instead of innovating on their own. In this way, regional or state policy makers seek to place their domain in line with modern technological advancements and capabilities for the purpose of attracting capital investment.

Greunz (2005) argues that knowledge “spills over” into contiguous European regions, in terms of 1st, 2nd, and 3rd order neighbors (in the study, “neighbors” are

represented by concentric circles of 100km). Greunz (2005) also found that geographically close regions share technological similarities and that inter-regional knowledge spillovers are mainly driven by the business sector. Piscitello and Rabbiosi (2003) find that foreign acquisitions have positive effects on the target company's outcomes in terms of (labor) productivity and employment. In a study of agglomeration and FDI in Marshallian industrial districts in Italy, Menghinello et al. (2010) find that inward FDI may generate productivity increases in host nation firms, but the effects were shown to be sector-specific in nature.

Host-side Determinants of Inward FDI

The FDI literature most relevant to the current study deals with the geographic, social, economic and cultural determinants of what attracts investment into the host nation. The "lion's share" of the literature is comprised of studies reporting similar conclusions as to what generally constitutes a "ripe" area for investment. However, there are important nation-specific studies that highlight unique attributes of certain areas that render the region or state valuable. In this sense, location matters. Throughout much of this literature, it is generally accepted that size of the domestic market in the host nation is the number one determinant of inward FDI (Ledyeva 2009, Waldkirch 2011 Agosin and Machado 2007). MNCs after all, are profit seeking entities.

Agosin and Machado (2007) use an ordinal index with data from 111 countries grouped into these classes (developed, developing and transition) of nations to argue that some of most important factors accounting for differences in FDI flows are the size of the domestic market, the presence of high quality institutions and available human capital.

Wu (2000) also finds the size of the domestic market to be important in his study of FDI

in Chinese cities. Naude and Krugell (2007) used a generalized method of moments (GMM) estimator with panel data in Africa in investigating institutions as determinants of FDI. The study found significant evidence linking government consumption, inflation rates as well as political accountability to be major factors in attracting inward FDI.

Research also indicates the importance of “good” governmental institutions. The majority of these studies point to the necessity of an efficient bureaucracy high degree of transparency in the host nation’s legal system (Ledyeva 2009, Benfratello et al 2005). For example, Mudambi and Navarra (2003) find political culture has a determining influence in states where economic and financial factors may be roughly similar. They demonstrate that in the case of Italy, a center-right political orientation is conducive to attracting FDI. This is quite important for a country like Italy which exhibits one of the most polarized political systems among all the nations in the EU.

In terms of political and legal accountability, Daniele and Marani (2010) found the presence of organized crime in a region to be a significant deterrent of foreign direct investment. The study found that the absence of institutions in place to deal with crime deters business incentives which reduce the possibility of agglomeration, and in turn works as another disincentive.

The importance of effective and stable institutions is consistently noted not only in the literature for developing nations, but also in studies for developed nations with a large volume of pre-existing FDI. Gross and Ryan (2008) use employment protection legislation (EPL) measures compiled by the OECD for 27 countries in the European Union, and find that EPL had a significant effect on the decision making process of Japanese MNCs. Specifically, they find that in countries such as Italy with higher

employee protection costs, employment creation in FDI is negatively affected. They argue that Italy is one of the most protective countries. Echoing this exact sentiment in another Italian study, Benfratello et. Al (2005), found positive effects related to efficiency in well-operating bureaucracies and, adequate legal systems as well as strong negative effects related to employee protection legislation.

The Presence of Physical Infrastructure and FDI

As noted above, good governance, a lack of corruption and the size of host markets are the most commonly cited determinants of FDI in the literature. There is also a significant body of evidence that suggests there are other actions nations may undertake to acquire or expand foreign direct investment. One of the more common factors noted in the literature is the availability of adequate and modern infrastructure, and the ability of that infrastructure to improve the absorptive capacity of the host economy (Agosin and Machado 2007). Ke and Lai (2011) use a two-equation recursive model with panel data from 1998-2005 to argue that regional infrastructures are a key determinant in the locations of multinational research and development nodes in China. In another study on Chinese FDI, Wu (2000) found transportation infrastructure, specifically highway and railway access, as well as relative transportation costs associated with each to be a major determining factor in FDI location decision-making. Supporting this, Roberto (2004) investigated Greenfield investment and acquisition in Italy and found that lagging regions may improve their attractiveness with an upgrade to their public infrastructure. Critical industry-related infrastructures are necessary attributes of host nations. MNCs develop subsidiaries into global production networks (GPN) and without the available absorptive capacity of a host economy, GPNs do not function as effectively as they might.

Human Capital and FDI

The quality and quantity of human capital in a host region also acts as a major determinant of FDI. This refers not only to the availability of an adequate labor force, but also the educational level of this labor force (Agosin and Machado 2007). Indicators of the level of human capital present in a region can include the presence of universities in a region, the wage level in a particular region or the presence of an entrepreneurial culture. Ke and Lai's (2011) analysis of inward FDI research and development facilities in China indicates that host regions for investment were picked based on the presence of a large base of scientists or engineers. Other studies point to the availability of a highly specialized labor pool of scientists or skilled professionals as a determinant (Waldkirch 2011, Santangelo 2004). In a study of the Etna Valley in Sicily, Santangelo (2004) finds the number of proximal research institutions to be advantageous in attracting FDI. This is especially true in highly technical industries that require greater levels of research and development. Human capital is cited widely throughout the literature, and numerous studies argue that it is the most important determinant over time in nations with developed, developing and transition economies (Youssef et al. 2001, Lipponer et al. 2005). A study by Ozyigit and Eminar (2011) examining the causality linking human capital, GNP and FDI found that human capital and GNP could independently lead to an increase in FDI. The study also found these factors to be the most important determinants of FDI in Turkey. In Italy, Majocchi and Presutti (2009) pointed to less concrete determinants regarding human capital such as an entrepreneurial social culture as an ideal asset for a region in attracting FDI.

Corporate Tax Structures and Levels of FDI

Behavior by multinational enterprises can be described as cost-minimizing and profit seeking. Large corporations develop strategies to enter a host nation while simultaneously maximizing returns to capital and the output of goods and/or services. A spatial-econometric study by Martinez-Martin (2011) found that outward Spanish FDI is characterized by forming agglomerations in areas where the lowest cost suppliers are available in the closest nations. Logically, this same strategy can, and usually does, manifest as MNCs searching for host regions, or nations, with lower corporate tax rates or tariffs (Ghinamo et al. 2010, Waldkirch 2011). The FDI literature confirms this relationship between lower corporate tax rates and a rise in foreign direct investment. However, this case has proven to be situational, as some nations have put in place measures to reduce the efficacy of tax incentives (Azemar 2010).

Bellak and Leibrecht (2009) analyzed data from fifty-six bilateral country relationships combining seven countries from the EU, the United States and eight Central and Eastern European nations from 1995 to 2003 to assess tax issues as they relate to FDI. Using a gravity model, the study found that tax-lowering incentives are a significant determinant of FDI. In the case of Italy however, researchers have noted that lower corporate tax rates have not been effective in strategically attracting FDI, specifically to underdeveloped Southern regions. It is in these Southern regions where FDI and growth is most necessary. Benfratello et. al (2005) posits that this could be explained by strong agglomerative forces rendering tax competition less effective throughout the country.

Industrial Clusters/Agglomeration Economies and Marshallian Districts effect on FDI

Local industrial systems and FDI may sometimes endogenously affect one another. In many instances, FDI can stimulate the growth of agglomeration economies (Hughes and Driffield 2003). FDI does this in two ways: The first is that firms are often attracted to districts or regions where there is already a healthy record of foreign investment (Waldkirch and Ofofu 2010). The second is that foreign investment has been shown to stimulate domestic investment in a district, confirming the theories of complementarity and agglomeration generated by FDI (Hughes and Driffield 2003).

Most researchers argue that local industrial districts (LID) have a unique advantage inherent in their design. In part, this is because they promote systemic flexibility. De Propris (2001 p741-742) defines this as, “the wide availability of buyers and suppliers, an efficient and specialized local labor market and a diffuse sense of trust.” Local industrial districts (LIDs) are indeed privy to these advantages and this sets them apart from their counterpart, the monopsonistic industrial cluster.

This alternative type of industrial structure is formed like the central hub and extending spokes of a bicycle wheel. In this design, one or a few firms are surrounded by many suppliers. This is contrary to the design of LIDs. In LIDs, industrial districts are populated by a large number of firms producing at all stages in the production-supply chain. Equal importance is placed on each stage, while decision making is not centrally located. This indeed is the nature of the “systemic flexibility” posed by De Propris (2002). In this arrangement, a firm’s ability to innovate is greatly improved as a result of co-operation regarding innovation issues with other firms. Menghinello et al. (2010) found that inward FDI in locations with higher levels of agglomeration and a significant

level of local industry specialization are the best to benefit from spillovers, while citing FDI in Marshallian districts as the greatest beneficiaries. Marshallian districts are a specific type of LID characterized by smaller firms operating in vertically and horizontally integrated separate industries. Where the LID may be a more competitive system using competition and integration to drive innovation, the MID is a system based more on cohesion and propinquity.

Final Overview of Determinants

Table 1 gives a breakdown of many of the important determinants cited in the present study that were found in the literature. This is by no means an exhaustive list, however many of the essential determinants were used to place the current study in context.

Table 1: Summary of FDI Determinants in Previous Literature.

FDI location determinants	Author(s)	Region/Nation
Size of Domestic Market	Agosin et al. (2007)	Latin America, Asia, Africa
	Ledyeva (2009)	Russia
	Walckirch (2011)	Mexico
	Ke et al. (2011)	China
Good Gov. Institutions	Benfratello et al. (2005)	Italy
	Naude et al. (2007)	Africa
	Ledyeva (2009)	Russia
Physical Infrastructure	Wu (2000)	China
	Basile (2004)	Italy
	Agosin et al. (2007)	Latin America, Asia, Africa
	Ke et al. (2011)	China
Human Capital	Santangelo (2004)	Italy
	Lipponer et al. (2005)	Germany
	Majocchi et al. (2009)	Italy
Industrial Clusters	DePropris (2001)	Europe
	Hughes et al. (2003)	United Kingdom
	Walckirch (2010)	Ghana

Source: Created by author.

Congestion Costs and FDI

As noted above, various studies have agreed on firm agglomeration as a strong determinant of FDI. A long-term determinant study of Spanish firms that reported outward investment strategies, found that firms sought to invest in closer nations, or in regions exhibiting agglomeration economies because of their low costs of production (Martinez-Martin 2011). Similar studies of inward FDI in Germany and Russia reported the same results (Ledyeva 2009), (Lipponer et al. 2005). It is important to note that there is not by any means, total agreement as to the attractiveness of closer regions or agglomeration economies.

Interestingly, other studies have found that clustering can act as a deterrent to FDI as a result of congestion issues (Waldkirch 2011). Driffield and Hughes posit that “crowding out” occurs when host regions exhibit low levels of human and physical capital. This underscores one of the greatest determinants of inward FDI, the absorptive capacity of the economy. In this case, firms may not be able to assimilate any innovation spillovers or externalities (Hughes and Driffield 2003). In the case of adequate human and physical capital however, the question remains, how far do these spaces of agglomeration extend?

Geographic Information Systems and Modeling of FDI

Diez-Vial and Alvarez-Suescun (2010) used a geographic information system (GIS) to show that the effects of agglomeration faded after a radius of 2.5 kilometers. The study looked at agglomeration as an alternative to vertical integration in the production process of firms in the Spanish meat industry. Physically proximate establishments in the

Spanish meat industry vertically integrated fewer activities as a result of agglomeration effects.

The present study attempts to model the spatial distribution of FDI in Italy. It is necessary to present the literature that has attempted to not only model FDI, but also related spatial conditions such as agglomeration clusters, LIDs and MIDs. GIS techniques have been used to represent the spatial distribution of FDI by geocoding firms by zip code. Site characteristics have been measured through cross-referencing location factors presented in the coverage such as infrastructure and land use (Wu 2000). Still, the use of GIS for such research remains uncommon. Diez-Vial and Suescun (2010) also use a GIS in geocoding zip codes in their study of geographical agglomeration as an alternative to vertical integration of firms. As previously mentioned, the study found a distance of 2.5km from the geographic centers of zip codes to be the distance at which agglomeration effects dissipate. The current study uses similar methods, however firms are geocoded by actual individual addresses as opposed to zip code centroids. Buffer zones will be used to measure agglomeration effects.

Other geovisualization techniques that have been used to present information related to FDI have been developed or applied by various regional, state or city development agencies. *Think London*, an inward investment agency operating in London, England published an article in 2008 showcasing the company's intelligent use of a GIS to display pertinent information to perspective investors. The techniques used include density maps, hierarchical clustering maps, and maps of current and future physical infrastructure investments as well as commuter plans for the citizens of London (Weber and Chapman 2009).

The current study uses many of the techniques used in previously mentioned research. The intent is to expand upon ways that previously mentioned research has modeled FDI. The following sections of the thesis will detail precisely which techniques are used in order to model the spatial distribution and diffusion of Italian FDI and well as understanding which determinants are major factors to investment. The subsequent chapters will present the study's data, methodology, results and discussion.

Chapter 4

DATA AND METHODOLOGY

Data

Individual firm level data from a large database called AIDA was procured during summer 2011 fieldwork in Italy. The data is a subset of an even larger database called Amadeus, produced by Bureau Van Dijk of the Netherlands. The database AIDA includes all balance sheet information for all business enterprises within Italy. For the purposes of the present study, the dataset was used to create a functional list of all foreign subsidiaries of MNCs operating in Italy from 2000 to 2010.

The database AIDA has certain limitations. The listings of employees and revenue by firm are incomplete. For example, some firms list their revenue over a million Euros annually, but employ zero employees for the year. Further, some firms chose not to include their employment or revenue data at all. All of this aside, the data was readily available and perfect for reformatting so it could be incorporated into a geographic information system (GIS) as the addresses for each firm is one of the fields in the database. Spatial-temporal data was obtained for three time periods, 2000, 2005 and 2010. The data includes company information such as name, revenue of the previous year, number of employees in the previous year, and the firm's CCIAA (Chamber of Commerce number). It also includes necessary spatial elements such as firms' address, latitude and longitude coordinates, as well as a home region and province name. It is important to note that the region and province names are used for aggregating the data into smaller segments for statistical purposes. The Nomenclature of Territorial Units Statistics (NUTS) levels are the standard for referencing subdivisions of European nations. Level one refers to macro-regions within each country. In Italy's case, level one

refers to the macro-regions specified as North, Center and South. Levels two and three refer respectively to Italy's regions and provinces. It is thus important to aggregate the data into NUTS level classifications in order to perform spatial statistical analysis at each level.

Finally, the data includes important individual information regarding the region of the firm's origin and the firm's industry type. The home region classification was taken directly from the AIDA database which groups all firms into one of nine regions of the world. These are: Western Europe, Nordic States, Eastern Europe, North America, Central and South America, Middle East, Africa, Far East Asia, Oceania. Home region data is critical to the current research which seeks to understand where the FDI in Italy comes from and if there are trends in investment by firms of the same home-region or industry. Each firm is categorized by its primary industrial activity under the Standard Industrial Classification (SIC) scheme. The final numbers of observations gathered for each time period are 1116 firms in the year 2000, 2330 firms in the year 2005, and 3098 firms in the year 2010. A summary of all the variables in the database may be found in table 2.

Table 2: AIDA Database Fields

*=thousands of Euros

Column1	Column2
OID	3
COMPANYNAME	BUNGE ITALIA SPA
PROVINCE	Ravenna
CLOSINGDATE	40178
REVENUESALES*	815620.656
EMPLOYEES	297
CCIAA Number	RA0168289
ADDRESS	VIA G. DI VITTORIO, 62
POSTCODE	48100
CITY	Ravenna
LONGITUDE	N/A
LATITUDE	N/A
REGION	Emilia-Romagna
ZONE	CSAMERICA
COUNTRY	ITALY

Source: AIDA database by Bureau Van Dijk

Qualitative interviews were another important source of information for the current project. Semi-structured interviews supported secondary data and place these numbers in broader context. Contact was made with over seventy five subsidiaries in various regions in Italy through means of “cold-calling”, traditional post and e-mail. Unfortunately, due to unwillingness to participate in the research, inadequate information for the firms’ activities and the scheduling of the summer holiday in Italy, few firms actually participated. Semi-structured interviews were conducted at three sites in Italy. Two interviews were conducted in the Emilia-Romagna region at sites in the cities of Rimini and Bologna, and one interview was conducted in Lazio at a site in the city of Rome. Interviews ranged from 20 to 60 minutes long and generally incorporated questions dealing with the type of industry of the subsidiary, why a specific location was

selected for investment, what renders Italy an attractive host country and how Italian corporate culture changes the business processes and policy of the investing MNC.

Data regarding regional characteristics of employment, gross domestic product per capita, population and regional endowment of railroad infrastructure at the regional and provincial level were obtained through Italy's statistical agency ISTAT. The data served as the independent variables for statistical analyses. Data were compiled to generate a series of OLS regressions, and a multinomial logit model to examine variations in the changes to investment in any given location as these levels vary with the locational factors discussed above.

AIDA Data Structure and Database Development

Initially, the data acquired from Bureau Van Dijk (BvD) needed to be “cleaned” in order to input into ESRI ArcGIS and SPSS statistical softwares. The data required manual editing and re-organization into a workable schema that would allow for further normalization and database joins. Once cleaned and properly formatted, the data was aggregated by region, industry, home region for the three possible time scales. ESRI's ArcView 10.0 is an optimal program for performing all of the necessary data management tasks. ArcView allows the user to geocode spatial data if the user can input addresses of all points to be included in the analysis. The program has a specific address locator system for Europe and the majority of the addresses (5500) were geocoded without significant editing. The remaining points (1044) were manually geocoded. The literature mentions studies that attempt to geocode FDI by zip code in order to quantify how many counts of subsidiaries are present within a spatially fixed region. The present study however makes use of the BvD data that included specific street addresses. Once

all geocoding and error checking was complete, the data was then ready to be processed and organized into several geodatabases based on aggregations by industry, region, home region and time period (2000, 2005, 2010).

The BvD data also includes information on “home region” of the MNC which invested in Italy. In terms of world regions, the data were aggregated into nine zones: Western Europe, Nordic States, Eastern Europe, North America, Central and South America, Middle East, Far East Asia, Africa and Oceania. This aspect of the data was essential in understanding the breakdown of where investments were coming from. This required a separate aggregation into three different databases in order to specifically investigate firm origin zones by the different time scales. The same process was used for industry type, year and region aggregation. Once all of the data was in a workable format and inputted into the “Italy FDI” GIS, it was quite easy to manipulate it to display various aspects of distribution for the time periods as well as the spatial diffusion of industries by sector over time.

All of the regional data was obtained through the Italian statistical agency ISTAT and the OECD’s statistical database EUROSTAT. Each database includes a wealth of information that can be used to analyze regional or provincial characteristics as predictors of future FDI. There are clear issues with combining data collected for other purposes. The trouble is fitting the correct data to the correct year. Often, the perfect variable such as total revenue spent on research and development will only be applicable for the years 2007 and 2009, for example and thus could not be used in this study of variation in FDI in Italy’s regions over time.

OLS Regression

Again, as the focus of the research is change in FDI over time, OLS regression was used to determine which factor endowments of Italian regions contributed most to the change in the number of new firms in 2005 and 2010 vis-à-vis the base year of 2000. The OLS model integrates a combination of data from the AIDA database and the regional data from Italy's statistical agency, ISTAT. The number of new firms in 2005 and 2010 are the dependent variables in the two models that are regressed against proxies for physical infrastructure, market demand, size of the economy, human capital quality and quality of health services. Typically, the general form of the OLS regression is shown by figure 4.1. The dependent variable Y = change in the number of firms by time by region. X is normally represented by predictor variables. A specific example would be plugging in unemployment for x_1 , kilometers of rail for x_2 , education of the labor force for x_3 and so on and so forth.

$$Y' = \alpha + b_1 x_1 + b_2 x_2 + \dots + b_n x_n$$

Figure 3: OLS Regression

OLS regression normally requires a sample size of greater than 30 in order to assure a robust test. To control for this, the data was “stacked” vertically in the database schema to “convert” the 20 regional entries into 40 regional entries in the model which also incorporates a dummy variable for 2005 and 2010. The AIDA data does not distinguish between which firms were either bought or acquired in the year 2000, and which firms were already operating in Italy at that time. This portion of the data (2000) only serves as a base year used to estimate the changes in the number of firms from 2000-2005, 2005-2010 and 2000-2010.

In order to avoid endogeneity in the model, the regional variables (rail, population, etc) were lagged 2 years prior to the years of the dependent variables in 2005 and 2010. The lag is the same for every characteristic and serves to portray a more realistic way of how any given MNC would actually make a strategic decision when looking at regional data given the assumption that the decision to locate is made one or two years prior to the action of the firm. All of the independent variables are lagged backwards two years (2003 and 2008) for the 2005 and 2010 models. Each dependent variable used in the OLS regression models for investment in 2005 is regressed against predictor variables in 2003 and thus 2008 for investment in 2010.

Each independent variable serves as a proxy for a specific pull factor identified in the literature and discussed in chapter 3. GDP per capita (GDP PC) in each region is used as a proxy for market size. Population (POP) and population density (POP DENSE) are used as proxies for market demand. Kilometers of rail (KMRAIL) and kilometers of rail by 100km of regional area (RAIL/AREA) are used as proxies for physical infrastructure. Unemployment (UNEMP) is a proxy for the state of the labor force and the general economy. The number of general care practitioners per 10,000 people (PRACT) is used as a proxy for quality of health care services. Human capital is measured by a variable quantifying the percent of the labor force with a tertiary education (TERT.EDU). Finally a dummy variable (Dum10) is included to distinguish between the two years 2005 and 2010.

Results of OLS Regression Analysis

The results for the regression analysis reveal several determinants that are more significant and stand out among the rest. Throughout the six different regression models

that were run, regional GDP per capita and population are clearly significant variables. When population density is substituted for population, the results are also highly significant. This demonstrates the importance of market size and market demand in the attraction of FDI. In terms of these two determinants, in order for a region to attract investment it must develop its production base over the long-term which in turn serves to and attract an influx of inhabitants and workers.

Regression number 6 is the best fit model with an r -squared of .739. The main determinants that were found significant in this model were kilometers of rail and unemployment rates. Counter intuitively, the significant coefficient for absolute kilometers of rail was negative. Reasons for this outcome are unclear, especially since when proxied with kilometers of rail by 100 kilometers of area the outcome is insignificant. This could be due to the fact that larger geographic regions that require more rail lines for domestic travel but have little effect on FDI. It could also represent the effect of clusters of FDI in smaller but more economically developed regions with proportionally smaller lengths of railroads. Roads and highways may prove more important, but this variable was not available for use.

Unemployment was found significant in virtually every case. The coefficient is negative for almost every model. Specifically, regression model number six that has an R^2 of .739 and a negative and significant coefficient for unemployment. This most likely is illustrative of the fact that the South of Italy has much higher unemployment rates and, perhaps as a consequence, low rates of FDI investment.

Finally, the variables for human capital, regional health and the dummy variable for 2010 were found to be insignificant predictors of FDI. It is possible that FDI does not

seek higher levels of university graduates as a result of the current make-up of Italian industry (discussed in Chapter 2) which is often in sectors not characterized by high-technology investments and more expensive labor. It is probable that the regional health indicator chosen does not vary greatly across regions in Italy and thus is not a significant predictor given that the national healthcare system is well balanced across all regions.

Finally the significance of the dummy variable tells us that between 2005 and 2010 there is change in the predictor variables and change in the differences in attractiveness of regions over time.

Although the best fit model explained 73% of the variance in the value of the dependent variable, the current OLS model cannot be called statistically robust. The model was obviously skewed and the negative significant coefficients for both rail and unemployment do not illustrate the strongest determinants of FDI, rather perhaps suggestions of characteristics of regions without growing FDI. Further, OLS regression requires at least thirty observations in order to be considered a robust test. There are only twenty Italian regions, so the regions were stacked and a dummy variable for year was used to increase the observations to forty. Further analysis will be required to illustrate a clearer picture of Italy's determinants.

Table 3: OLS Regression Output **Significance at the .05 *Significance at the .01 level**

Column1	Reg1	Reg2	Reg3	Reg4	Reg5	Reg6
Variables	COEF	COEF	COEF	COEF	COEF	COEF
GDP PC	.012 (.004)***			.001 (.003)		.008 (.003)**
POP			.000 (.000)***	.000 (.000)***	.000 (.000)***	
POP DENSE		0.72 (.215)***				
KMRAIL			(-).110 (.036)***		(-).110 (.036)***	
RAIL100/AR EA	8.50 (8.823)	(-)12.9 (12.550)				17.6 (8.585)**
RAIL/AREA				(-)473.8 (660.877)		
PRACT	(-)1.23 (26.877)	(-)12.1 (25.870)				(-)23.6 (27.098)
UNEMP	.483 (.195)**		(-)0.701 (.149)***	(-)0.617 (.241)**	(-)0.701 (.149)***	
TERT.EDU						
Dum10				(-)40.4 (21.501)*	(-)41.4 (18.831)**	(-)34.4 (31.723)
REG#	1	2	3	4	5	6
R	0.624	0.606	0.859	0.822	0.859	0.44
R-Squared	0.39	0.294	0.739	0.676	0.739	0.194
Std. Error	91.028	91.382	58.698	66.276	58.698	103.096
Adj. R-Squared	0.3	0.294	0.709	0.629	0.709	0.102
Dependent Var.	New Firms	New Firms	New Firms	New Firms	New Firms	New Firms

Source: Calculated by author

Additional OLS Models Related to Previous Investments in Italian Regions

FDI determinant research has indicated that FDI tends to seek areas where other foreign MNCs have invested (Waldkirch and Ofofu 2010). Other studies (noted in chapter 3) claim that the presence of firms of the same industry operating in close proximity entices firms to locate in the region (Roberto 2004). To test these relationships in this case study of Italian FDI for the period of 2000-2010, three test models were run with different database schema. These three models test the assumption that firms have a tendency to invest in areas where there is already significant investment by firms of the

same industry and from the same home region. A sample of the database is illustrated in Table 4.

Table 4: OLS Model #2 Database by INDUSTRY TYPE

#	INDUS	REGION	PINV	D10	GDP	POP	DENSE	RAIL	RAIL/AREA	PRA C	UNEMP	TERTEU
0	A	Abruzzo	0	0	17,846	1,273,284	118.30	538	5.00	8.45	44.447	12.898
1	B	Abruzzo	0	0	17,846	1,273,284	118.30	538	5.00	8.45	44.447	12.898
0	C	Abruzzo	0	0	17,846	1,273,284	118.30	538	5.00	8.45	44.447	12.898
6	D	Abruzzo	13	0	17,846	1,273,284	118.30	538	5.00	8.45	44.447	12.898
0	E	Abruzzo	1	0	17,846	1,273,284	118.30	538	5.00	8.45	44.447	12.898

Source: Formatted by author

In this model, the dependent variable remains the number of new FDI firms. All of the same independent variables discussed in the previous section are entered into the model, but the main change is the addition of the number of previous investments in each specific industry as an explanatory variable. Table 4 shows the database schema, in which “PINV” indicates previous investment and “INDUS” indicates the industry type based off of the corresponding standard industrial classification code. These new dependent variables were derived from the original database. In this model, the number of observations was increased from forty to four hundred by making each industry type a unique observation. Again, this is not the most statistically sound method in terms of convention, but the objective is to tease any further information out of the limited data available. The structure of the database is illustrated as table 5.

Table 5: OLS Model #3 Database by ZONE/INDUSTRY TYPE

PI NV	INDUSTRY/ZONE	# NEW INVEST	REGION	D I O	GDP	POP	DENSE	RAIL	RAI L/A RE A	PR AC	UNEM P
1	NORTHAMERICA B	0	Lombardia	1	27,233	9,642,406	404.40	1,643	6.89	6.75	168.380
8	NORTHAMERICA C	3	Lombardia	1	27,233	9,642,406	404.40	1,643	6.89	6.75	168.380
134	NORTHAMERICA D	18	Lombardia	1	27,233	9,642,406	404.40	1,643	6.89	6.75	168.380
12	NORTHAMERICA E	2	Lombardia	1	27,233	9,642,406	404.40	1,643	6.89	6.75	168.380
84	NORTHAMERICA F	16	Lombardia	1	27,233	9,642,406	404.40	1,643	6.89	6.75	168.380
13	NORTHAMERICA G	3	Lombardia	1	27,233	9,642,406	404.40	1,643	6.89	6.75	168.380

Source: Formatted by author

Table 5 shows yet another test database schema. This model tests for the number of new investments as a result of firms of same home region and the same industry type. INDUSTRY/ZONE is the field that details the industry type of the firm from each home region. This schema increased the number of observations from four hundred in the last model to roughly four thousand. Each region uses the corresponding nine home regions and ten corresponding industry types discussed in the database section earlier in the chapter.

Finally, the last schema is specifically to measure the effects of investments by firms of the same home region. This model, like the model for industry has roughly four hundred observations. An illustrative sample of this database is provided as table 6.

Table 6: OLS Model #4 Database by ZONE

# N E W I N V	Zone	P I N V	Region	D I O	GDP	POP	DENSE	RAI L	RAI L/A REA	PRAC	UNEMP
0	AFRICA	0	Abruzzo	0	17,846	1,273,284	118.30	538	5.00	8.45	44.447
1	CSAMERICA	0	Abruzzo	0	17,846	1,273,284	118.30	538	5.00	8.45	44.447
1	FAREASTASIA	3	Abruzzo	0	17,846	1,273,284	118.30	538	5.00	8.45	44.447
0	EASTERNEUR OPE	0	Abruzzo	0	17,846	1,273,284	118.30	538	5.00	8.45	44.447
0	MIDDLEEAST	0	Abruzzo	0	17,846	1,273,284	118.30	538	5.00	8.45	44.447

Source: Formatted by author

Unfortunately, none of these three new OLS models yield conclusive results as to the determinants of FDI in Italy for the years from 2000-2010. They do show the importance of agglomeration at the regional level and the choice of firms to invest in areas where there is a greater number of FDI from their home region and industry. Table 7 shows the best fit models for the three test OLS models. The R^2 values range from .46 to .60. The previous investment variable in each model is all highly significant and positive.

Table 7: OLS Regression Output #2 **Significance at the .05 *Significance at the .01 level**

Column1	Column2	Column3	Column4
Variables	COEF	COEF	COEF
	INDUSTRY	INDUSTRY/ZONE	ZONE
#ofPrevInvestment	.355(.006)***	.353 (.006)***	.421 (.019)***
GDP PC	.000 (.000)***		
POP			
POP DENSE		.003 (.001)***	
KMRAIL			.002 (.002)
RAIL100/AREA	.019 (.028)	(-).116 (.038)***	
PRACT		.127 (.082)	1.052 (1.51)
UNEMP			
TERT.EDU	.070 (.027)**	.062 (.029)**	.555 (.503)
Dum10	(-).729 (.132)***	(-).663 (.144)***	(-)7.320 (2.66)***
R	0.681	0.682	0.781
R-Squared	0.464	0.466	0.609
Std. Error	2.609	2.604	15.669
Adj. R-Squared	0.463	0.465	0.604
Dependent Var.	#NewFirms	#NewFirms	#NewFirms

Further Regression Analyses

A multinomial logistic regression analysis is an ideal method to model the discrete location choice of firms between regions. This type of model has been used by numerous scholars including Crozet et al (2004). A similar model was developed for the present study, but due to data constrictions did not yield any real concrete results. For this specific type of model, each region is coded into a specific nominal variable and used as the dependent variable. Each firm is then listed with its corresponding regional characteristics and prior firm investment data from the previous OLS models. Current attempts at using this method for this “FDI in Italy” database have proven unsuccessful.

CHAPTER 5

SEMI-STRUCTURED INTERVIEWS

Semi-structured interviews and a number of short surveys were conducted while conducting my fieldwork in Italy in order to supplement the data from the AIDA database and understand the decision made to local FDI more completely. Two multinational firms and an economic development agency were interviewed, while additional MNCs opted to respond by email. Each face-to-face interview was set in a relaxed environment in which a dialogue about FDI and the economic conditions in Italy took place. Specifically, each firm was asked questions about what type of product or service they manufactured, and how their firm “fit” into Italian culture from both social and corporate standpoints. There were also questions regarding the reasons the MNC chose the specific location of the subsidiary for investment, as well as other questions related to what made Italy an attractive destination for investment. The responses of the informants at each firm and the development agency concur perfectly with much of the previous literature related to FDI in Italy (discussed in chapter 3).

Type of Service or Product

For purposes of privacy, the names of the firms are anonymous, however they will be delineated in the present section. Interestingly, out of the total four firms that responded, two were American MNCs (AS and AM) and two were Dutch (DS and DM). Of the two Dutch and two American MNCs, each group had one service subsidiary (AS and DS), and one subsidiary in manufacturing (AM and DM). The Dutch manufacturing firm *DM* processed agricultural foodstuffs such as flours and cooking. The American firm *AM* manufactured uninterrupted power supplies and generators. The two remaining

affiliates, *AS* and *DS* performed general business services for their parent companies. The Dutch *DS* subsidiary performed general logistics and supply chain management as well as being a facilitator for the wholesale trade of products through various distribution points throughout Italy. The American subsidiary *AS* is an outside contractor that performs translation services and document management.

How the Firm Fits into Italian Corporate and Social Culture

Each informant was asked how their firm “fit in” or adapted to Italian corporate and social conditions. This question is important because it seeks to understand the motivation of a firm in fully integrating its operations in accordance with Italian culture and policies and how it achieves these synergies. Respondents noted the difficulties of adjusting their foreign (and often more strict) business policies and rules to Italian regulations. Italian corporate culture varies widely depending on the geographic location of the business. The American manufacturer that provided the responses via email reportedly found it difficult to apply its American rules to Italian business norms, while the Dutch service subsidiary mentioned difficulties in reconciling and coordinating business operations, specifically when dealing with firms in Southern Italy. The Italian informant working at the Dutch subsidiary recalled his difficulties: “At first, I had a difficult time dealing with them (the Dutch). The way we do business is different. Italians, we like to talk, and they are very straight to the point.”

In contrast to the difficulties faced by firms *DS* and *AM*, respondents from firms *AS* and *DM* reported no troubles adjusting to Italian corporate and social policies. Both firms reported minimal problems. Perhaps this is due to the nature of their firms, which operate within the realm of international business. The American service firm found it

absolutely necessary to learn and, “adapt ourselves to the client’s structure, tendencies and needs, not the individual and firm-wide characteristics of our parent company.” Management interviewed at the Dutch subsidiary also stated they had “no problems” applying Italian firm policies, technology and law in their operations.

This is an important aspect of MNC strategic policies. The manager from firm *AS* stated that in order to be successful in the Italian market, the firm must rigorously study and thoroughly understand the history, culture and physiognomy of the region in which they invest. This knowledge is essential in order for them to serve Italian firms that each have their own unique structure and mode of reaching other markets with respect to their competitors.

Although interviews indicated that firms *DS* and *AM* faced difficulties adjusting to Italian corporate culture, both firms report a work force composed largely of local Italian employees. This reflects the firms’ efforts to integrate into the market and to further understand their consumer base and clientele. Further, respondents from the firm *DS* actually influenced the policies of its parent company, forever changing the MNC and its products reflecting a mixture of Dutch and Italian influences and ideas.

Why Invest In Italy?

When asked why the firm chose to locate in Italy, each firm gave different responses regarding why a multinational firm would find Italy an interesting and potentially profitable host-country. Answers ranged from the presence of ideal human capital and the low cost of labor, to Italy’s competitive energy costs and ease of access to larger markets within the Eurozone. One firm even mentioned Italy’s stable banking

system and comparative and absolute advantages in various sectors of industry vis-à-vis other low-cost countries such as Greece, Spain and Ireland.

During the interview with firm *AS*, the subject of Italy as a host country for FDI constituted a large portion of the interview. When asked about the country's advantages in attracting investment, the informant cited ease of access to Eurozone markets as the most important determinant. The informant stated, "Historically, Italians prefer to acquire goods from foreign markets." This ease of access to and from foreign markets is valuable to an MNC wishing to produce and/or sell goods in Italy. Another key determinant outlined by the manager of firm *AS* is the geographic advantage held by Italy relative to the rest of the European Union. Because of the Mediterranean Sea access that Italy enjoys, it is a great "platform" for exports. This is a very special advantage that Italy holds over other countries that may be landlocked, or cannot access many of the markets across the Mediterranean and beyond.

Mirroring this sentiment was the response given by management at the firm *DM*. These respondents rated the favorable logistical conditions and ease of market access as the number one determinant of investment. The firm also cited Italian infrastructure as a key benefit, without which their firm would not have invested. Finally, because of the nature of the manufacturing industries, *DM* stated that Italy's competitive energy costs made it feasible for energy-intensive industries to invest.

On the other side of the argument, human capital and labor costs were also cited as important determinants by other firms. Both of the American firms, *AM* and *AS* cited the quality of human capital in their opinions about Italy as an attractive host region. However, the informant from *AS* claimed that manufacturing in Italy is far less

convenient than in the 1960s and 1970s. As noted in chapter two, Italian industrial structure has changed over the last fifty years. According to the informant at *AS*, the change in structure meant that, “It is much more convenient to build an industrial structure in the service sector because Italy is endowed with human resources and competencies that are extremely high in quality.”

Firm *AM* also viewed Italian labor quality in high regards. This informant stated that, “Italians are effective communicators, and very objective-oriented people.” While it is quite clear that this statement is a broad generalization, consistently the quality of human capital was cited as one of Italy’s stronger qualities.

Also mentioned was the cost of skilled labor in Italy. An informant at Firm *AS* cited great differences in the wages of graduates between the United States, Canada, the United Kingdom and Italy. Opening a subsidiary in Canada or the United States would cost triple the amount of compensation for employees in comparison to Italy as a result of the higher costs of labor for equivalent workers. Compensation for workers in Italy is much less than for the United States or Canada. The firm manager at *AS* stated,

“Human resources cost much more on the American continent. They are the base of the service industry. This has to do with the Italian education system that prepares students at a lower cost. Therefore it makes sense for a foreign company to come to Italy.”

This of course brings into question the level of wages and thus worker productivity in Italy when compared to other nations with higher wages. Further, the low cost of education and compensation in Italy serves to keep costs low, but also provides incentives for the export of human capital, a historical problem for Italy (as discussed in Chapter 2).

Information from interviews conducted with management in firm *DM*(Dutch Manufacturing) has not yet been mentioned in this section. The determinants cited by this firm were much more specific in nature. When asked about the reasons that make Italy a great place for investment, the informant mentioned the industry-specific advantages held in Italy that made it an attractive region.

“For tires, the Italian market is very interesting for foreign companies. With a very large driving fleet and the third highest consumer of winter tires make this a great place for investment from a firm in our industry. In Italy, almost twenty five million sets of tires are sold per year, and our firm produces almost six million of that total.”

In short, local demand for products should not be overlooked as a reason for FDI in Italy. A country may be lacking in many other areas important for FDI, but the presence of a large stable consumer base often compels an MNC to locate in any given nation.

Aspects of Subsidiary Location

The last section of the survey collected opinions of management from each MNC. The questions were asked to determine the specific assets that Italy possesses that render it an appropriate region for FDI. The current section refers specifically to one of the interview questions that asked: “What are the characteristics of the current location of your subsidiary that made it an ideal spot for investment?” This section will cover why each subsidiary was located in a particular site, and the specific conditions of that site.

The firm *AS* was located in Rome, Lazio. The informant stated that their affiliate has only been in the city for two years. The parent company acquired real estate and located the subsidiary office in a district with many state-owned firms, as well as foreign MNCs and Italian private companies. According to the informant at firm *AS*, corporate

strategy dictates that their affiliates must be located in capital cities in every nation. The informant described this decision as one of great strategic importance.

“We always go to the capital. Here there are all types of firms, public and private. There are also embassies here in Rome and this provides us with many resources as well as opportunities for our translation and document management services to be called upon. Also, the capital city is where you will often find a greater human resource pool. We can create a team of the best linguists and technicians/specialists for serving our clients.”

Firm *AS* stated that the capital city is often more important than other cities in the region, even if there are other cities that may be larger or serve as greater hubs of connectivity in the globalized world. For this reason their firm chose Rome instead of Milan.

Respondents at firm *DS* described their experiences in the Italian market differently. Originally the affiliate was an Italian firm. It was family-owned for a long period, and the informant stated that this is a great weakness of Italian industry in the current globalized world. Unlike their American and European counterparts, many firms remain family-owned in order to maintain control of the firms operations. Firm *DS's* informant stated, “The difficulty for Italian firms is becoming MNCs. If you look at the globalized market, this is a major limitation for us (Italians).”

Management at *DS* also spoke of Italy's popular firms like Sergio Tacchini, Fila and other famous Italian brands. Although these firms were originally successful in Italy, because of the nature of Italian business and the inability to exploit economies of scale, large corporations like Nike were able to come into Italy and capture much of the market.

The previous family-owned firm *DS* was bought out by a Dutch MNC in 1999 and more recently a parent company in India. Although the firm *DS's* product was

technically precise due to Dutch engineering, it did not perform well in a sufficient variety of markets. The Italian market was especially difficult to penetrate, and Italian product marketing expertise and design support was sought to reach segments with new consumers. The Italian branch shifted the philosophy of the firm in many ways, specifically in the creation of a brand. Ultimately the firms reflecting the two cultures merged to create a more productive business.

Firm *DS* is located in Rimini, Emilia-Romagna. The informant from *DS* mentioned several factors as to why this location was chosen. Sixteen years ago, the firm manager was asked where an ideal location for a subsidiary would be in Italy. Based on the fact that a location in Milan or Rome would cost double in terms of both rent and labor, and that Emilia Romagna is still located in the North, this region was ultimately chosen. The firm manager decided on Rimini specifically as a result of its proximity to airports as well as consumer markets and tourist destinations. Because the subsidiary is not a producer, they did not face the limitations of manufacturing logistics. Attracting clients to a pleasant area was viewed as more important.

“Everyone wants to come to Rimini. There are many consumers, more hotels and the city often hosts large conventions. The culture of Rimini is more of the Northern regions. Practically, I am the only branch manager that must manage “two countries” (The North and South of Italy).”

The last part of the previous quote underscores the regional differences that would lead a MNC to place a subsidiary in Northern Italy as opposed to Southern Italy. The differences in social and corporate culture between the North and South Italy present serious challenges for corporate strategy. The firm manager at *DS* cited several specific different cultural and business practices during the interview such as payments being on-

time in the North and late in the South. I was also told that risk for investment is higher in the South.

Firm *DS* was not located in a district with other foreign firms or MNCs. This is the one firm interviewed that was not situated amongst other firms. Representatives of firms *AM* and *DM* confirmed that they purposively were situated in districts with other multinationals.

ERVET S.P.A.

The final interview was with an economic development agency located in Bologna, Emilia-Romagna. ERVET S.P.A started out as a private (limited) company in 1974. After the first regional elections in 1970, regions gained power over local operations. At the time, economic development agencies were formed in each region of Italy to facilitate development. The goal of ERVET is to guarantee the level of development of the territory is on par with, or better than other Northern regions in Italy through the promotion of effective industrial policies. The current section illustrates the efficacy and the policies of the regional development offices in Emilia-Romagna specifically.

Initially, ERVET was charged with answering the following question: “What type of industry do we specialize in now, and what can we foster through management and planning?” Throughout the three decades after its creation, ERVET developed policies to support large numbers of small and medium-sized businesses. Emilia-Romagna still remains strong in terms of the presence of mid-sized businesses. The director of ERVET stated,

“ERVET helped to assist the proliferation of industrial clusters and districts in Emilia Romagna. Firms and the structure of industry now configure itself through vertical and horizontal integration in this manner. Specifically in clothing, tiles and furniture...the closeness inspires competitiveness and ERVET contributed to the growth.”

As an investment agency, ERVET is focused on the development of industrial clusters and production networks as well as physical infrastructure and the promotion of business cooperation with the six universities located in Emilia Romagna. In recent years, markets in Italy have been challenged by China and Spain. According to the head of territorial development at ERVET, the city of Sassuolo, Emilia-Romagna used to account for eighty percent of ceramic tile production in the world. Within the last decade, this output has been reduced to only forty percent of world output.

An interesting point to note is that ERVET does not actively recruit foreign firms seeking to make investment. The only case of recruitment noted was in medical services, technology and equipment. According to the head of territorial development, FDI enters the region and “do what they want (foreign companies), they have the tendency to disturb our policies. We work to revalue the territory but we do little to attract FDI. The goal is to make our region self-sufficient.” This contrasts much of the FDI literature. Informants at ERVET noted that the quality of life, entrepreneurial culture, robust systems of research and social cohesion are all important determinants of FDI.

In closing, the semi-structured interviews yielded very valuable information. Each firm was able to provide a greater understanding as to how their parent companies made decision in Italy. Many of the responses mirrored that which can be found in current FDI research literature. The interview with ERVET S.P.A was specifically revealing. If territorial development agencies are not actively recruiting FDI, are their much greater

barriers stopping Italy from attracting foreign firms and accessing further development potential? The fact that a development agency from Northern Italy, in a region ripe with potential for investment actively discourages FDI and encourages self-sufficient operation may lead to further questions regarding Italian difficulties in attracting FDI.

Maps of FDI

The following maps display the distribution of FDI in Italy over three time periods (2000, 2005 and 2010) by industry. Each industry is designated by A, B, C, D, E, F, G, H, I, and J, representing the Standard Industrial Classification codes defined in table 8.

Table 8: SIC Classification by Industry

Standard Industrial Classification	
SIC-CODE	INDUSTRY
A	Agriculture, Forestry & Fishing
B	Mining
C	Construction
D	Manufacturing
E	Transportation, Communications, Electric & Gas
F	Wholesale Trade
G	Retail Trade
H	Finance, Insurance & Real Estate
I	Service
J	Public Administration

All industries grew in the last decade, however growth in industries C, G, J, H, A, and B all registered growth rates of over 250% for the last decade. It must be noted that this does not accurately portray the relative real amount of growth in these industries. Industries A, B and J totaled lower than 50 total investments for the entire decade, while industries I, D and F each had well over 500 new investments in the decade but a lower percentage change. FDI favors Northern Italy quite strongly. Southern growth in industries I, F, E and C may be able to serve as a base for future investment and nascent industry.

Figure 4: Italian FDI in the Agriculture, Fishing & Forestry Industries

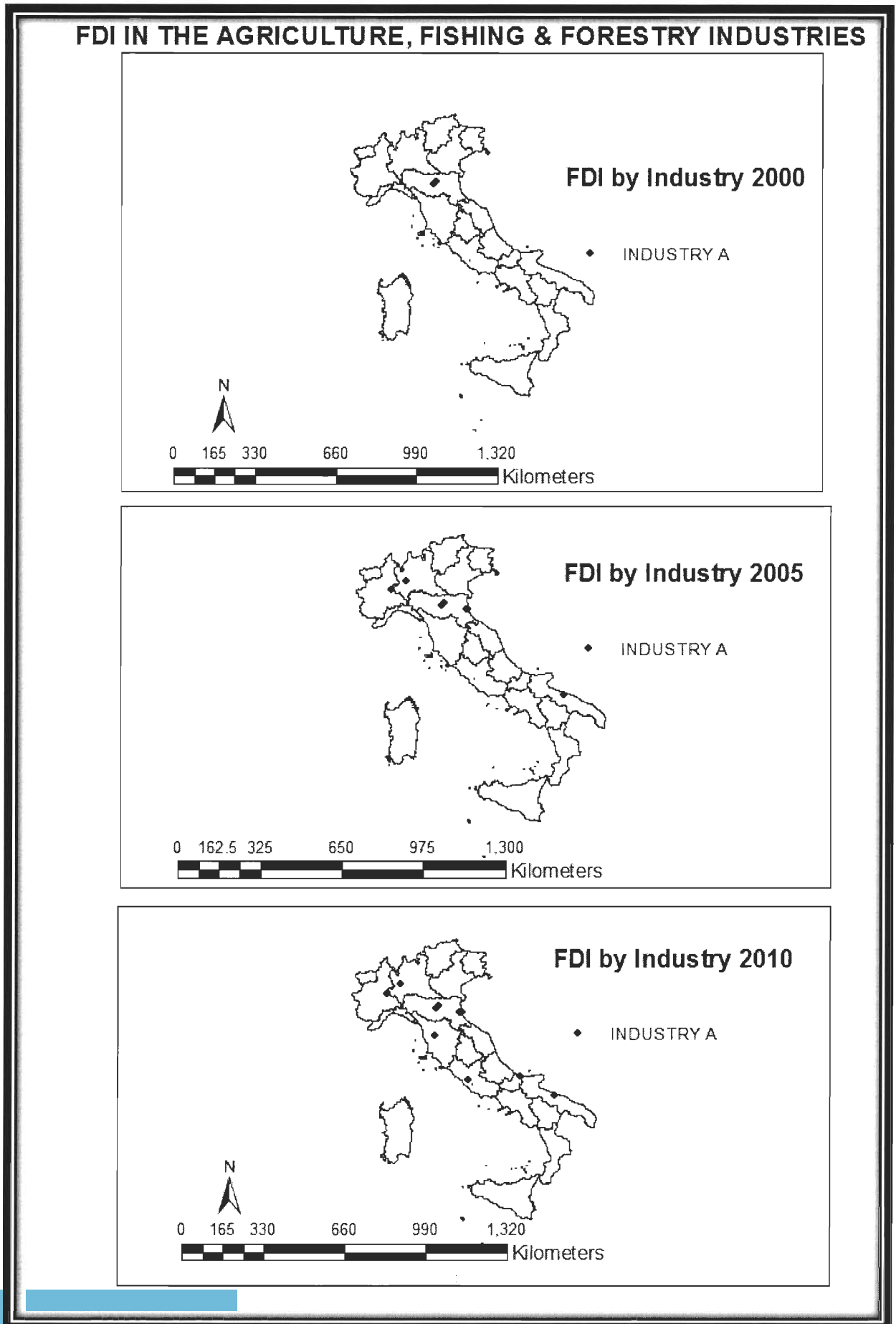


Figure 5: Italian FDI in the Mining Industries

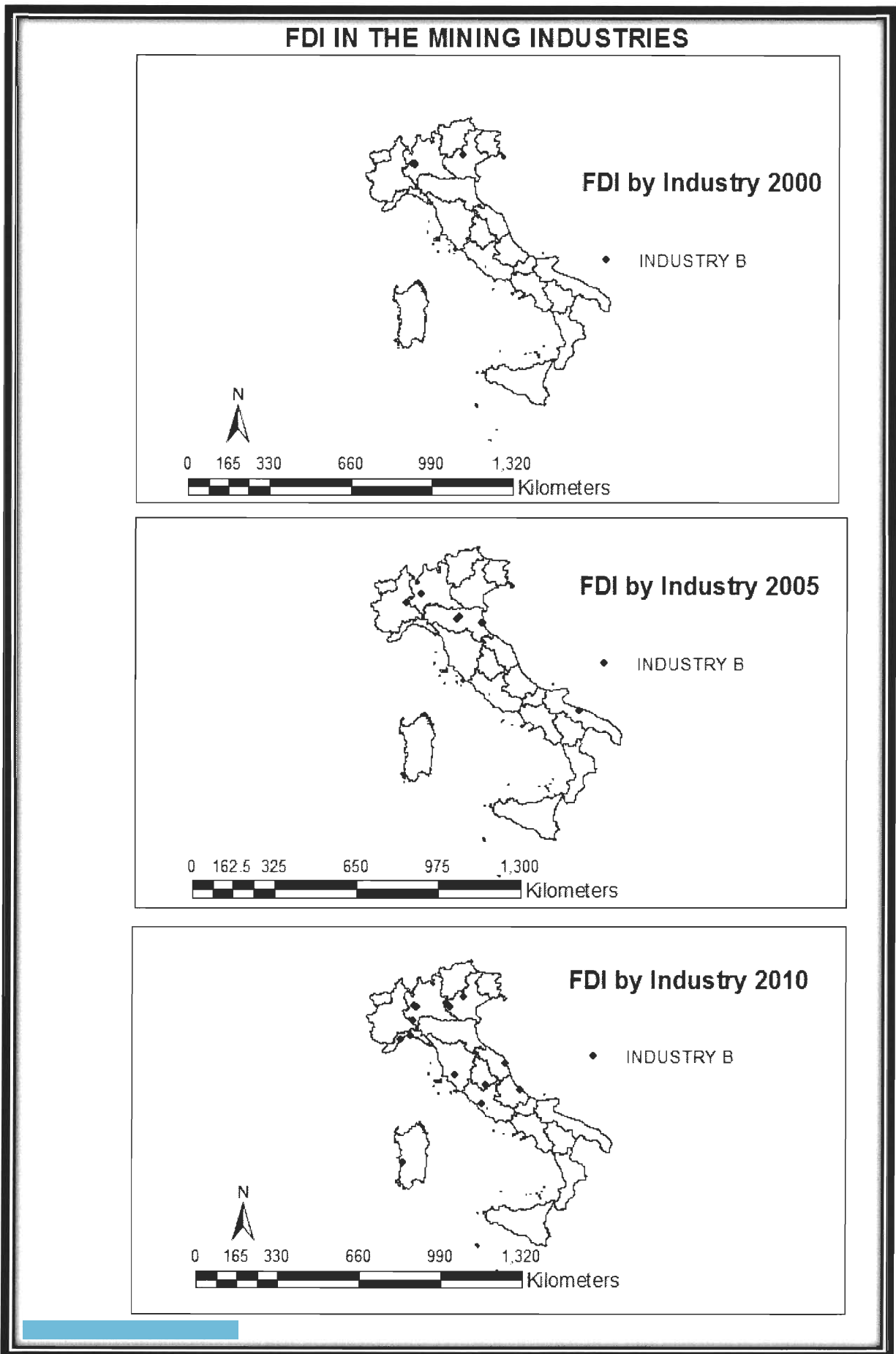


Figure 6: Italian FDI in the Construction Industries

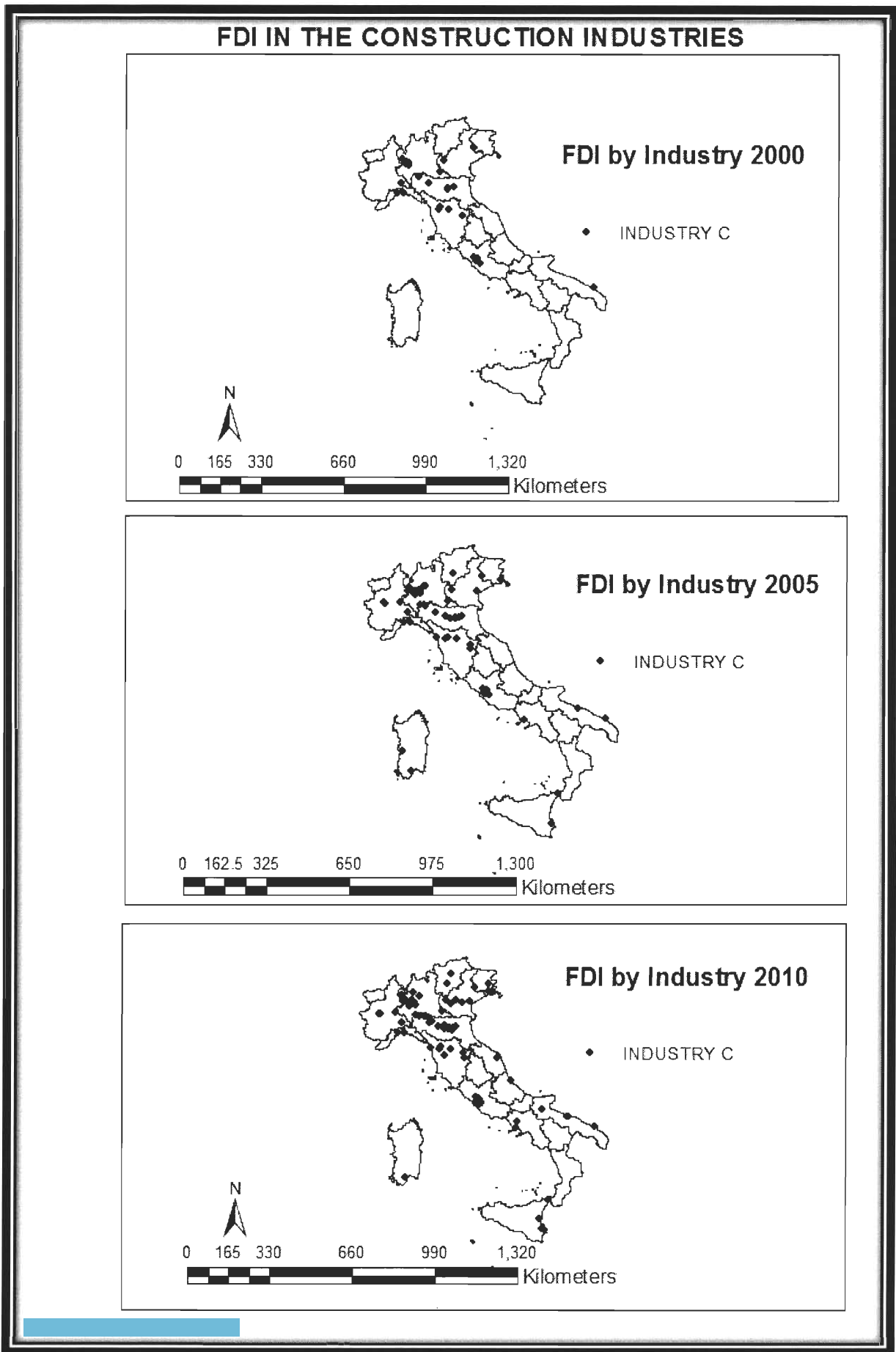


Figure 7: Italian FDI in the Manufacturing Industries

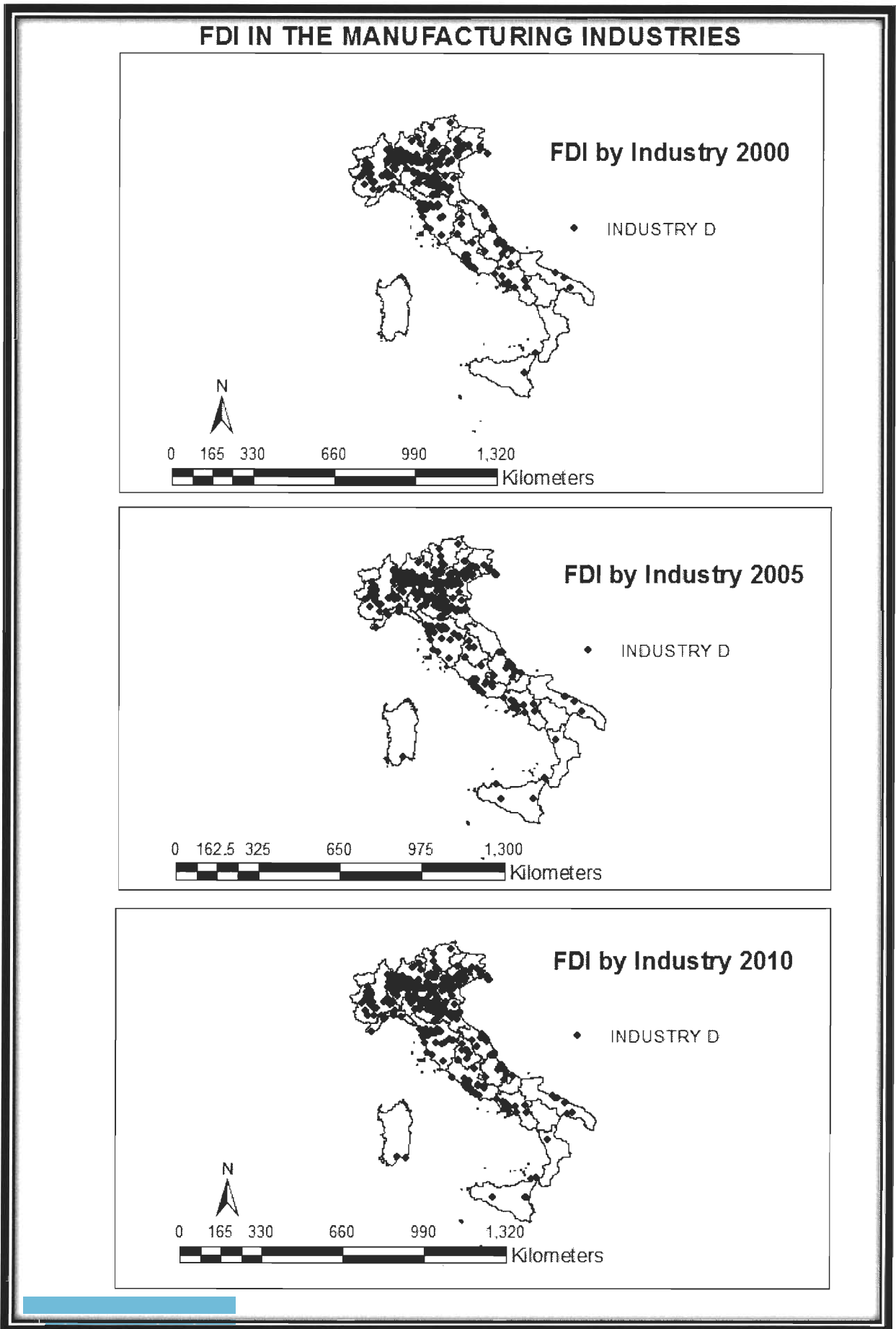


Figure 8: Italian FDI in the Transportation, Electric & Gas Industries

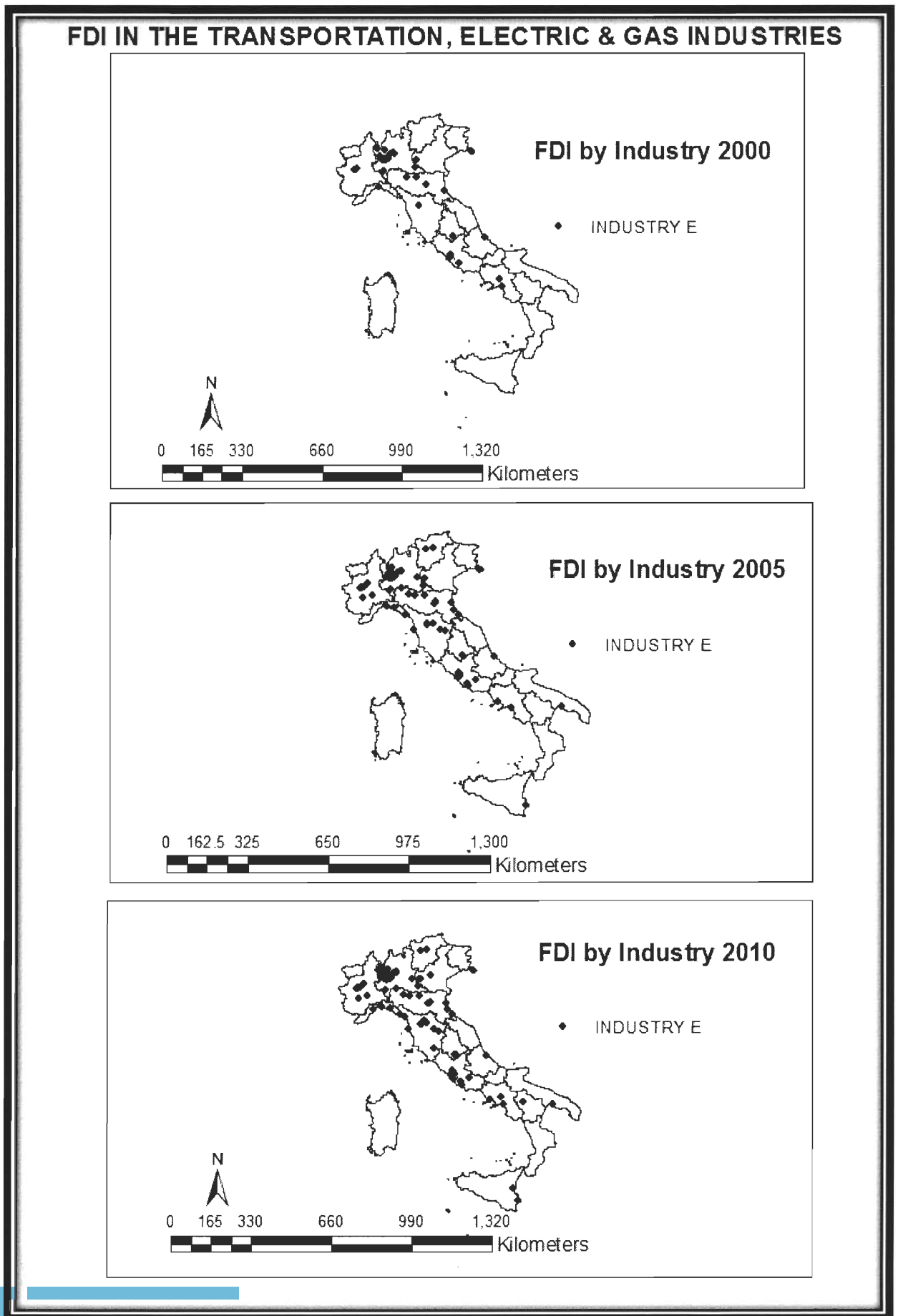


Figure 9: Italian FDI in the Wholesale Trade Industries

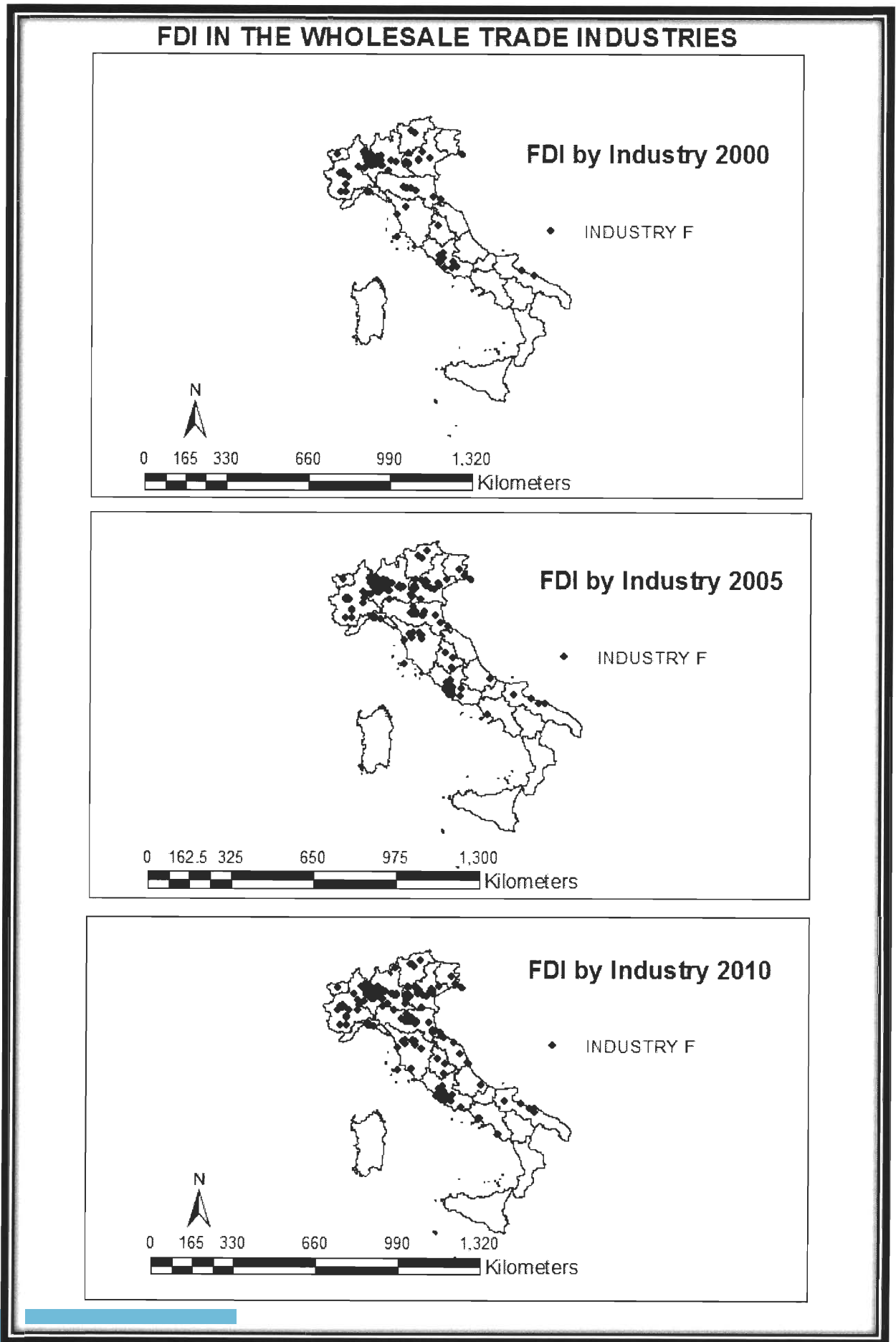


Figure 10: Italian FDI in the Retail Industries

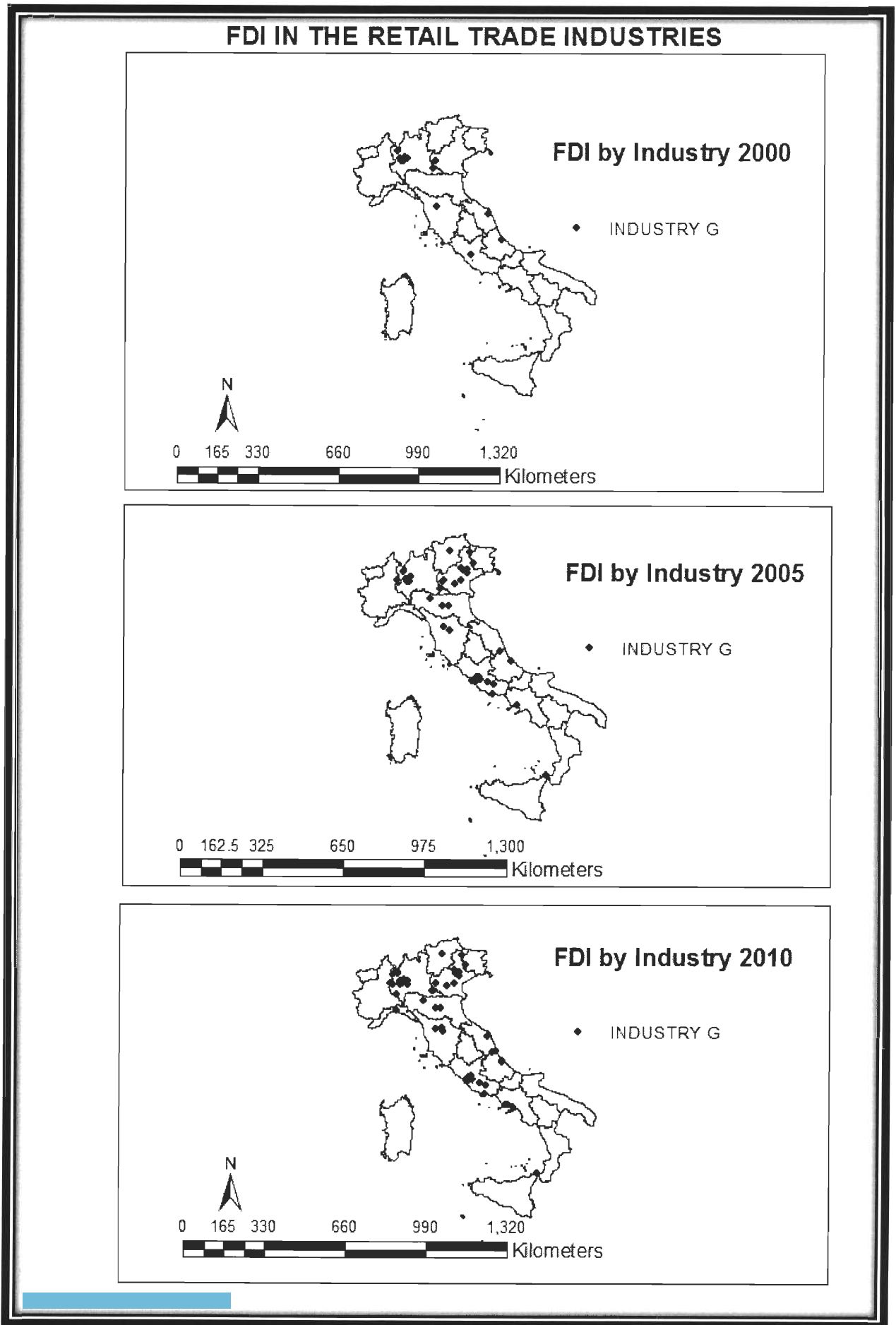


Figure 11: Italian FDI in the Finance, Insurance & Real Estate Industries

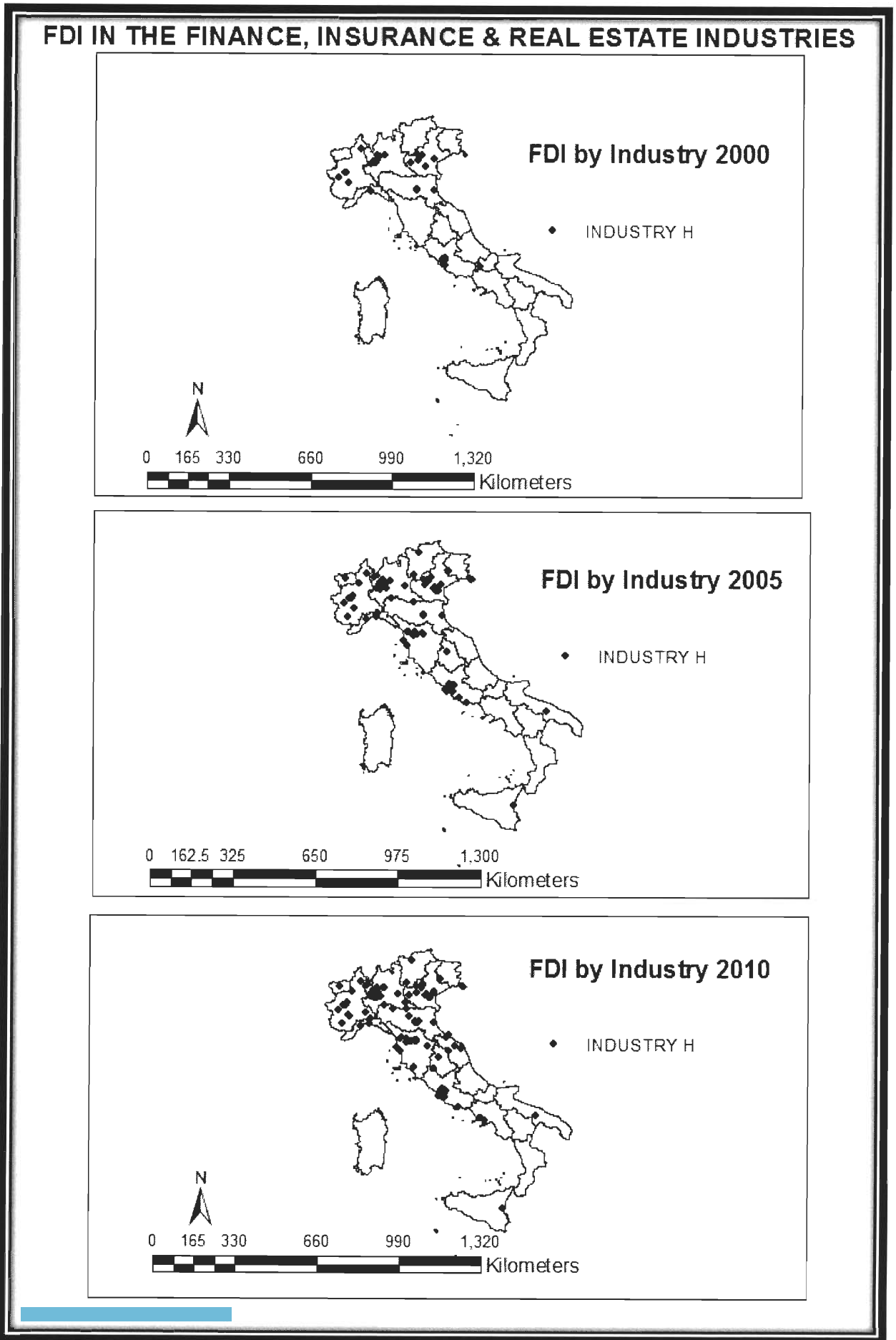


Figure 12: Italian FDI in the Service Industries

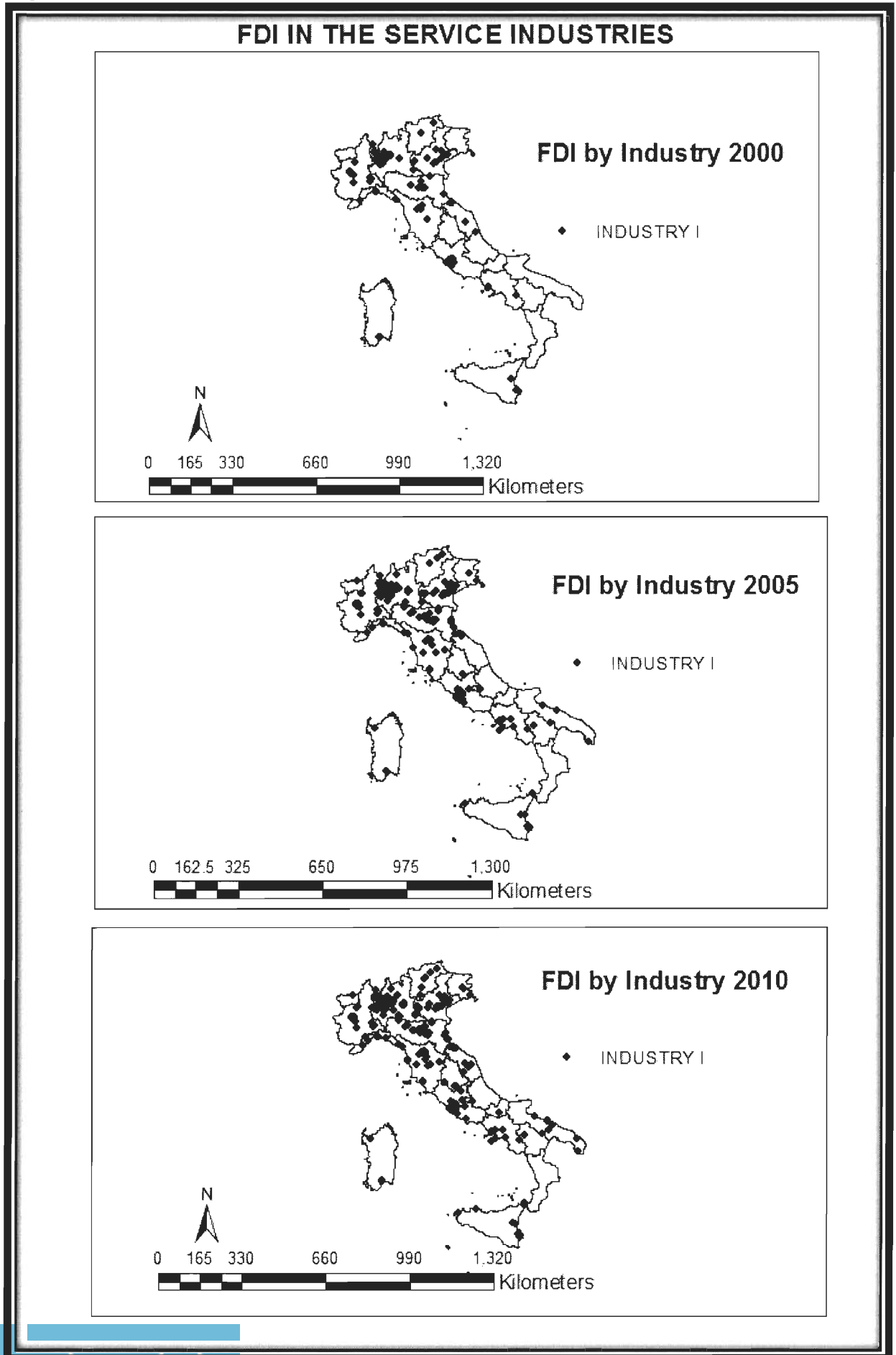
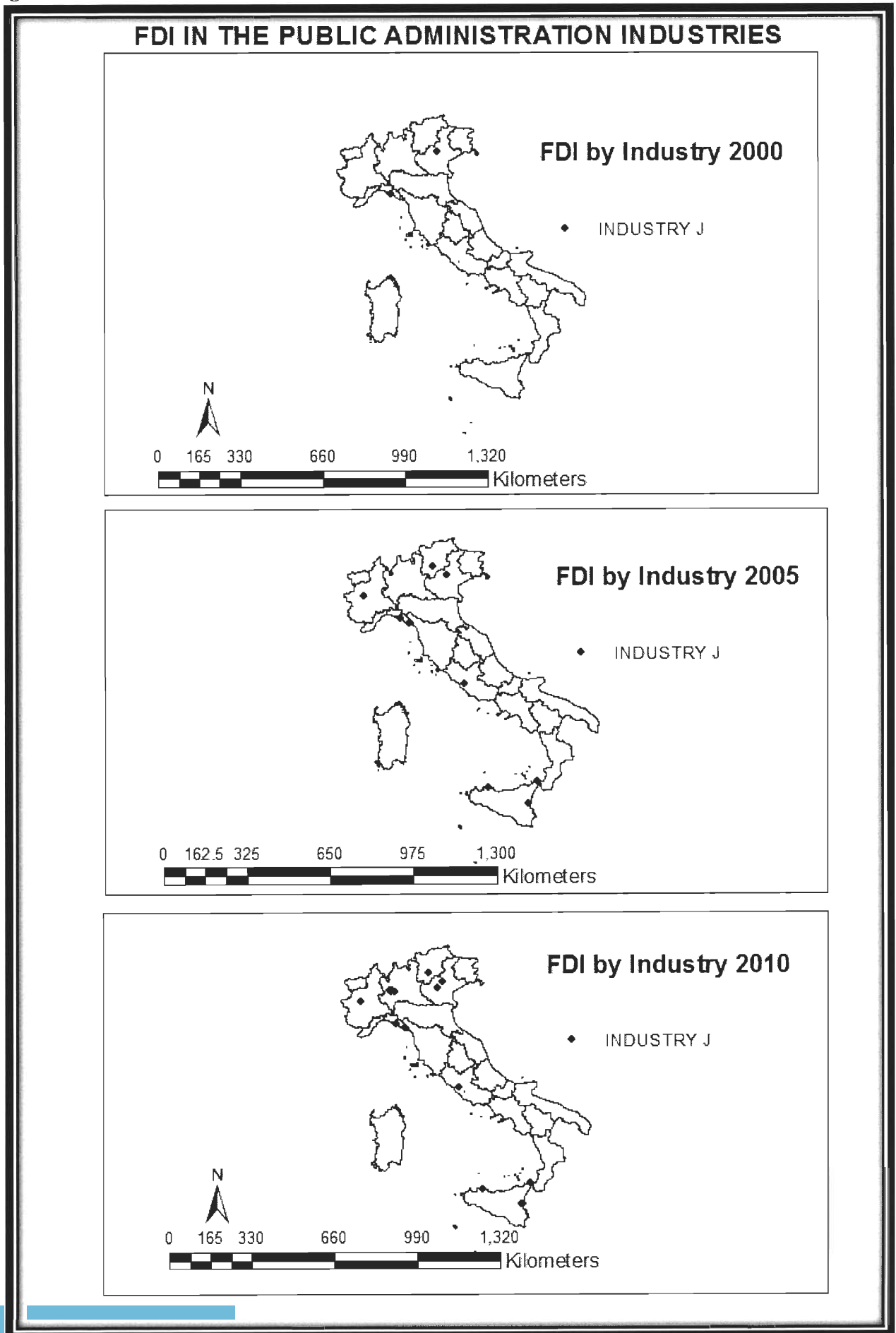


Figure 13: Italian FDI in the Public Administration Industries



CHAPTER 6 DISCUSSION

Although the current study did not yield conclusive results for all of the regression models, much has been learned. Chapter 6 will summarize the implications of the current research and the possibilities of future research in the field. OLS regression is a useful tool in the case of this study to understand how the determinants interact spatially across Italy's regions. These models were used as a starting point, to "extract" as much information from the data as possible. Future research should incorporate the use of a nominal logistic regression analysis to model the discrete location choice of firms between regions and provinces. Another strategy would be the use of a Poisson test to examine the probability of a given number of events (counts of new investments in this case) in a fixed interval of time or space. These are considerations that will be taken into account in the event of further research on the topic.

The regression analyses did seem to yield some interesting information regarding the effects of agglomeration and determinants. Specifically, firms do choose to invest in regions where there are already a higher number of firms in similar industries and world region. This may be due to the fact that firms look at investment choices as "big-picture" decisions, where the reputations of existing firms in an area are enough to attract investment. Alternately, it may also be the case that firms look for specialized niches in which they can fit in along the production cycle. The tendency towards agglomeration concurs with most of the FDI literature, and is congruent with the responses and objectives of the head of territorial development at ERVET S.P.A. This fact also reveals another important consideration for future research. Examining specific clusters at the

micro-scale by geocoding each firm and denoting its place in the local production cycle would be very interesting in examining actual functioning industrial clusters. It would require adding all domestic firms to the already large dataset used for this research.

Although the semi-structured interviews and surveys were limited in number, they did reveal many interesting opinions of actual firm managers in Italy. One of the more challenging findings that was not specifically present in the FDI determinant literature was the fact that firms wanted to invest in Italy because of competitive energy costs. Another sentiment expressed by several of the firms interviewed was the opinion that Italy had great logistics and port access. This contrasts with the results of the regression model that showed kilometers of railroad to be negatively associated with investment, but other transportation infrastructure options were not available. An interesting option would have been to include the numbers of shipping ports per region or the quantity of highways as a determinant in the regression model.

It seems that Italy's greatest barrier to attracting FDI is its sluggish economy and rampant unemployment rates. Both of these factors promote the flight of human capital and contribute to the "brain drain" taking place throughout the country. Although the flight of capital is occurring all over the nation, it is particularly devastating to the Southern regions that struggle developmentally. This was evident in the output of the regression analysis that showed higher levels of unemployment and lower levels of population as important and statistically significant negative influences on FDI. Unemployment normally drives wages down, while a smaller population would mean a smaller labor force from which to draw candidates from. The effects of these two factors in conjunction are devastating and Southern Italy experiences both. It is a possibility that

the reputation of regions that have sluggish growth, high unemployment rates and low levels of human capital do not attract FDI because of the greater risk associated with potential investments in these areas. It seems that this not only creates a regional imbalance, but also furthers the continued economic development of Northern cities like Milan and Bologna at the expense of Southern cities like Naples and Bari.

Italy's leaders need to focus their efforts on real sustainable development in its Southern regions. The country itself is in better shape than Greece, Spain and Ireland, but without expending greater efforts towards the age old problem of the "Southern Question", it is highly likely that divergent trends will continue. Future models should take into account corruption as well as differences in regional corporate tax rates. The simple proxies used to measure the determinants of market-demand, market potential, physical infrastructure and human capital are useful, but very limited as what can be inferred from the data.

The AIDA database remains unfinished. Much of the data is missing, or containing bias. Regional characteristics from ISTAT and EuroSTAT were difficult to obtain as a result of proper time scales not being available for the years of investment.

In conclusion, the present study offers important information about Italian FDI and its locational determinants. (1) It seems that the diffusion of FDI over the last decade has grown to include Southern regions, but the bulk of investment continues to be in the North where the investment environment is perceived as less risky. (2) Italy's strongest determinants remain transportation and logistical access to the Eurozone and the Mediterranean Sea. It also boasts a great number of agglomerated industrial districts in the Northern regions that are home to some of world's largest firms. Finally, Italy has a

large consumer base and is the 10th largest economy in the world. (3) Italian determinants have not substantially affected the regional distribution of FDI. Traditional determinants found in the FDI literature are not able to explain Italy's situation, at least for this time period. The country is very complex with deep-seated issues dating back hundreds of years. FDI continues to locate in the North because this is where the business occurs, and the South has a bad reputation for being a high-risk business environment. (4) The South is not doomed however, if policy makers can downplay divide discourse in the media and focus on increasing the quality of human and social capital. In the long-term, Southern regions should begin to recover. Large numbers of unemployed must be employed in some fashion and the brain drain must also be stopped. (5) FDI remains a critical research topic, and understanding the spatial distribution of this phenomenon is as important as understanding the business processes behind it. The study remains unfinished and limited by data availability, but is a useful starting point towards developing further more sophisticated models in order to understand corporate strategies and the future of FDI in Italy.

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