

POLITECNICO DI TORINO

Collegio di Ingegneria Gestionale

**Corso di Laurea Magistrale
in Ingegneria Gestionale – Engineering and Management**

Tesi di Laurea Magistrale

**European FDI trends and Selection Criteria
of Multinationals in e-Commerce Sector**



Relatore

prof. Luigi Benfratello

Candidato

Alessandra Rabbi

Dicembre 2018

A nonna Rosa,

Che mi ripeteva da anni che voleva esserci,

che mi ha aspettata finché ha potuto,

che ha sempre avuto fiducia nelle mie capacità.

Ringraziamenti

Quando si arriva alla fine di un percorso così lungo, a volte si rimane senza parole.

Ringrazio anzitutto il professor Luigi Benfratello e la dottoranda Alida Sangrigoli, il primo relatore paziente e disponibile, senza il quale questa tesi non sarebbe ciò che è, la seconda dottoranda e amica sempre disponibile a darmi un consiglio.

Poi voglio ovviamente ringraziare la mia famiglia e in particolare i miei genitori, che mi hanno sostenuta in questi due anni di trasferta torinese, sia economicamente che emotivamente, e sono stati la mia spalla sia nei momenti felici che in quelli di delusione. Avete fatto tantissimo per me e io vorrei solo abbracciarvi perché siamo una famiglia ed è ciò che conta.

Vorrei ringraziare anche nonna Livia, di cui sono evidentemente un clone, per avermi sempre saputo riportare alla calma zen nei momenti peggiori.

E voglio ringraziare anche tutti coloro che sono stati una famiglia, che mi hanno fatto sentire il calore di una casa malgrado la casa fosse una catapecchia in affitto; ringrazio Roberta, a cui voglio tantissimo bene, che mi faceva la minestra quando ero ammalata (lo ripeterò fino alla vecchiaia e oltre); grazie Robi, grazie per farmi morire dal ridere e per non avere paura di sgridarmi se ce n'è bisogno. Ringrazio i ragazzi di Torino, con cui posso staccare la spina e trovarmi a casa anche lontano da casa, e che mi ospitano ogni volta che appaio senza preavviso al portone. Ringrazio in particolare Mirko e Giorgio; questo capitolo della mia vita è stato pieno di ricordi di voi. Abbiamo vissuto insieme, abbiamo condiviso punti di vista su qualsiasi cosa, guardato ogni singolo show del palinsesto Netflix, io e Giorgio abbiamo anche rischiato di dar fuoco alla casa un paio di volte. Non dimentico quanto vi ho fatti dannare, e quanto foste sempre pronti a coprimi le spalle in caso di bisogno. Quanto era bello

strizzarsi in tre su un divano sfondato a guardare stand-up comedies, circondati da decine di impronte di mani sulle pareti.

Ringrazio tutti coloro che si sono beccati le mie elocubrazioni econometriche e che con pazienza infinita mi hanno ascoltata e consigliata, mi hanno aiutata a sfogarmi per gli indici che non quadravano e mi hanno fatto capire, col semplice gesto di non mettere giù la cornetta del telefono, che mi volevano bene. Non so se lo sapete, ma lo apprezzo moltissimo. Grazie.

Ringrazio Jacopo, autentica roccia per due anni di folli corse nel Nord Italia a bordo di treni e pulmini.

Voglio ringraziare anche tutti coloro che forse non se ne rendono conto, ma che in realtà sono parte di questa tesi, perché l'essere umano non vive meramente per soddisfare il bisogno di cibo e di sonno, ma per tutti i momenti preziosi di cui le giornate sono tempestate. A ciascuno di voi che mi ha strappato una risata, mi ha portata a ballare, mi ha allungato una birra fresca o più semplicemente mi ha aiutato a staccare nel momento del bisogno, dico grazie; avete fatto molto più di quanto forse non vi siate resi conto.

Vorrei proseguire, ringraziare altri amici, citare quelli storici e quelli nuovi, perché sento che molte più persone meritano una menzione speciale (per una volta in cui mi sforzo di essere sentimentale!), ma ho esaurito il tempo. Letteralmente, mancano dieci minuti alla consegna.

Dai che mi conoscete, non potete onestamente essere sopresi.

Vorrei solo dirvi che percepisco il vostro affetto, nei grandi e nei piccoli gesti, e lo apprezzo enormemente. Spero si noti che vi voglio bene, e, tanto per ripetermi un'altra volta,

Grazie.

... fortuna che ero senza parole!

Index

0. [Introduction](#)

0.1. [Key Concepts](#)

1. [Foreign Direct Investments in modern global economy](#)

1.1. [The market internationalization](#)

1.2. [Definition and classification of Foreign Direct Investments](#)

1.3. [Considerations on FDI inflows - Advantages and disadvantages for hosting economies](#)

1.3.1. [Advantages for hosting economies](#)

1.3.2. [Disadvantages for hosting economies](#)

1.4. [Global FDI trends in the last decade](#)

1.4.1. [FDI inflows - Modern trends by geography](#)

1.4.2. [FDI inflows - Modern trends by sector](#)

1.5. [Italian FDI inflow trends](#)

1.6. [Digitalization](#) and effects on international commerce

2. [The e-commerce evolution](#)

2.1. [A brief history of e-commerce diffusion](#)

2.2. [E-commerce by product categories](#)

2.3. [Shifting from consumption to e-consumption](#)

2.4. [The Italian e-commerce market](#)

2.4.1. [Considerations on small and large excellences of Made in Italy](#)

3. [European FDI: overview of Trends and Highlights](#)

3.1. [The European Digital Single Market](#)

4. [European FDI Trends by type: Greenfield and M&A](#)

4.1. [Greenfield e-commerce FDI in the European market](#)

4.1.1. [Greenfield e-commerce FDI - Tangible assets](#)

4.1.2. [Greenfield e-commerce FDI - Intangible assets](#)

4.2. [M&A e-commerce FDI in the European market](#)

4.2.1. [M&A e-commerce FDI - Tangible assets](#)

4.2.2. [M&A e-commerce FDI - Intangible assets](#)

4.3. [Conclusions](#) on European FDI Trends

5. The Econometric model

5.1. The independent variables

5.2. [The Negative Binomial Regression](#)

Analysis 1: Overall foreign direct investments

A.1.2. Separation of M&A and Greenfield

Analysis 2: High and Low income countries compared

Analysis 3: Tangible vs. Intangible assets

5.3. [Comparison of model results with country-specific data from database](#)

5.4. Italian FDI Attractiveness

6. Conflict between innovation and legislation in the digital economy

6.1. The gig-economy phenomenon

6.2. Uber and Europe

6.2.1. Uber and the future of the taxi industry

6.3. The food Home Delivery Industry

6.3.1. Riders – Labor regulations in different European Countries

6.3.2. Riders – Labor regulations in Italy

6.4. Other virtuous examples around Europe

6.5. The European Trade Union Confederation reply to Labor challenges in Digital Market

Conclusions

Bibliography

Introduction

During a brief, yet challenging working experience in Amazon in 2017-2018, I had the opportunity to work in a multinational company leader in its sector, namely the e-commerce. The enthusiast colleagues, the infrastructures and the scope of the national and international projects that were carried out on a daily basis made me understand the true impact of e-commerce on the future of the economy: an apparently unstoppable transition. And yet, this evolution is very recent and difficult to confine in a single sector: e-commerce ranges from the sale of virtual products and services to the digitalization of traditional commerce, finally creating new ways of trading, as sharing economy and gig-economy. Fascinated by the transition that is taking place before our eyes, and with particular attention to our country, I wanted to deepen my knowledge of e-commerce as a sector and, with an econometric model, to understand which intrinsic characteristics of countries can attract or discourage foreign investors.

0.1. Key concepts

Foreign Direct Investment (FDI) refers to the act, done by a private company, to invest in business activities in foreign countries and implies a long-term interest in the host country. These kinds of investments are a dominant feature in modern global economy and they are important indicators of internationalization. Foreign Direct Investments are a remarkable global business growth tool both for companies and host companies. In 2017 they accounted for \$1.52 trillion and accounted for up to 39 percent of total incoming finance in developing economies.

Globalization and, more recently, digitalization largely affected FDI in the last few years. Digital commerce became a sizable portion of FDI panorama; e-commerce is relatively new, but it already deeply changed customers behaviors. In the last few years, retail e-commerce experienced a flourishing growth, passing from \$1.34 trillion in 2014 to \$2.31 trillion in only four years. And the trend is expected to remain positive over the next four years, with \$4.88 trillion sales in 2021. Digital commerce has intrinsic characteristics that are profoundly different from traditional channels, leading to asset-light forms of FDI. Digital multinational companies make in fact about 70 percent of their sales abroad, with only 40 percent of their assets based outside their home countries. These asset-light forms of investments were a concurrent cause of the recent FDI flows contraction.

To figure out which European countries are more attractive to private investors for FDI in the e-commerce sector, we created our own library of individual cases using data from both FDI Markets

and Zephyr databases for the last 20 years, from 1997 to 2017. The e-commerce definition as the sale or purchase of assets online was too vague for the sake of an econometric analysis. We hence excluded online financial and banking consultancy services, online marketing and graphics services, and investments that bring the Parent Company to less than 10% of total ownership of the foreign activity. The collected data examine 43 countries of geographical Europe the inclusion of many States, even outside the euro area, allowed us to identify trends and, in the e-commerce model, the correlation among FDI number and variables carefully selected.

Between January 1997 and May 2018, a total of 59,278 FDI projects were recorded in the European Union, equating to a 23% share of global FDI. These projects represent a total capital investment of \$3,422.73 billion, which is an average investment of \$36.90 million per project. During this period, a total of 6,240,512 jobs were created. After the drop incurred during the 2008 world financial crisis, data show a slow but constant recovery. United Kingdom is the top host country for the period considered, with a total capex equal to 25.47% of the overall capital expenditure in Europe in the period considered. German in second top host country with less than a half capital expenditure attracted.

The most peculiar e-commerce subsector is the non-store retail. The non-store subsector has exponentially grown over the last years. In 2017, 47 projects were carried out in the sector, while the partial data for 2018 suggest that the positive trend will be maintained, with 54 new investments by the end of the year. Overall, 201 investments have been made between 2003 and April 2018 in the subsector, for most concentrated in the last five years.

Amazon is the most active company in Europe in the e-commerce sector, detaining a record for number of projects – 196, capital expenditure – \$11,424 million and more than 20,000 jobs created. The global Nonstore Retail leader is the Chinese company Alibaba; however, Amazon has the major presence in both North America and Europe.

As said, e-commerce includes also firms that sell intangible assets online. They may be very different in nature, product sold and sector of core business; understandably, they are therefore difficult to identify and compare, but they are numerous and rising in every sector considered. The macro area in which e-commerce had the major influence are analyzed in detail. First, IT Software and Internet Publishing: in the 2003-2017 period there have been

more than 2800 different FDIs. last few years e-commerce saw an increasing presence in overall FDI, accounting in 2016 for 17.1 per cent of all foreign direct investments in the sector.

All companies of sharing economy fall within this category; Uber Technologies stands out in this sector with a total of 46 operations abroad. From 2012 to 2017, the company has invested a total of \$471.6 million in FDI, half of which -\$211.14 million- in territories belonging to geographical Europe.

Another important sector is Hotel and Tourism, where investments shifted from traditional brick and mortar travel agencies to fare aggregators and travel fare metasearch engines. In 2017, 68% of all FDI in Hotel and Tourism were made by e-commerce companies. As a matter of capital expenditure, digital MNEs become even more relevant: their investments account for the 85 per cent of the nearly \$350 million invested during the year.

Finally, e-commerce experienced a significant growth in the Food Industry sector, thanks to the companies specialized in home delivery. From 1997 to 2018, 44 of the 82 overall FDI in the Food Industry have been performed by e-commerce companies. Because of the peculiar business model of these companies, their investments are particularly light-asset and do not have a significant impact on the overall capital expenditure in the sector; however, they have today a strong international presence.

To identify the characteristics that increase a country's attractiveness for FDI in the e-commerce sector, we implemented an econometric model gathering all data relevant to our study in the observation period 1997-2017. We identified 11 variables to better explain the FDI trend. These variables cover many aspects, from economy to legislation, geography, and demography, to better describe the host country; for each of them, the historical values for the 20 reference years have been found and included in the regression model.

The identification of explanatory variables is not sufficient: we must also identify the correct regression to use in the model. Since the dependent variable, FDI number, is a count variable, the regression choice fell on either a Poisson or a Negative Binomial regression. However, given the marked over-dispersion of data, we preferred the NBR. To run the statistical analysis, we relied on the STATA program, a statistics and data science software, version 14.2.

Once identified the intrinsic characteristics more attractive to foreign investors, we then compared their value to the real FDI Italian situation to verify the goodness of the model and to measure the relative attractiveness of Italy compared to other European countries.

Finally, sixth chapter shows how European countries regulated the spreading e-commerce practices, since the phenomenon diffused faster than the legislative system. Digital companies use new business models and therefore created different jobs, that must be regulated in order to protect consumers, competitors and workers. As many other historic examples of disruptive innovations, digitalization is going to permanently change the way consumers and workers relate to commerce, but the transition should be led to minimize the negative social impacts on society, especially on its vulnerable members.

1. Foreign Direct Investments in modern global economy

The term *Foreign Direct Investment* (usually shortened in FDI) refers to the act, done by a private company, to invest in business activities in foreign countries. Individuals, business corporations or by groups of companies make this kind of investment when they have a long-lasting interest in the foreign country.

In the last decades, globalization and digitalization led to the expansion of several industries across national borders, significantly affecting FDI trends around the globe.

1.1. The market internationalization

The world economic and political system is experiencing its most profound transformation since the rise of the international economy. Economists refer to the free movement of goods, capital, services, technology, and information that characterize the last decades as *economic globalization*. This new era of international trade is characterized by a progressive political liberalization of trade and international capital movements, and it has been greatly accelerated by the recent technology revolution, which allowed to reduce transportation and communication costs as it has never been possible in history.¹ Today economic globalization looks like an inevitable and unstoppable economic and social phenomenon – since it is linked to the evolution of modern society itself.

Multinational companies, «corporations which own, control, and manage income generating assets in more than one country»², are the vehicles for most of this globalized economic activity. Foreign direct investments are in fact one of the principal tools with which firms achieve their strategic goals abroad.

While psychic distance has been pertinent so far in FDI decisions, its importance might gradually reduce with increasing globalization and development of new/digital economy, allowing even more freedom to companies.

¹ Journal of Comparative International Management, Vol. 9, E. Parassaris, “*The Business of Globalization and the Globalization of Business*”, 2006

² Dunning’s definition of “Multinational Company”, 1974, as presented in “*The Theory of the Transnational Corporation*” G. Ietto-Gillies, London South Bank University and Birkbeck University of London, 2014

1.2 Definition and classification of Foreign Direct Investments

Foreign Direct Investments require the foreign investor to establish a lasting interest in the host country. Therefore, to be able to talk about FDI, the investee must own 10% or more of the ordinary shares of the foreign company. Minor acquisitions are excluded from FDI count and are defined *portfolio investments*, since they are financial holdings that do not involve the investor in the company's management.

FDI takes place through Mergers and Acquisitions and *greenfield* or *brownfield* investments. In greenfield investment companies build a new facility in an area not previously used. It differs from a brownfield investment, since it involves refurbishing pre-existing buildings.

Worldwide data on M&A and GF underline that the majority of worldwide flows are GF, although M&A likely accounts for approximately 77.5% of the value of those flows.³ Both forms of investments are hence important to understand the international market.

FDIs can also be *vertical* or *horizontal* depending on company's strategy. Invest horizontally may be a winning approach for multinational companies to overcome high transportation costs or import barriers, since they lead to the duplication of production activities abroad. Vertical FDIs, on the other side, delocalize production phases in different countries to minimize the cost of every activity.

1.3 Considerations on FDI inflows - Advantages and disadvantages for companies and hosting economies

As said, multinationals expand their international presence thanks to foreign direct investments. Firms use this kind of operations to export their brand and know-how abroad, acquire scalability through higher sales volumes, benefit from low-cost labor and gain strategic market positions in other markets.

³ R. B. Daviest, R.Desbordes, A.Ray, "*Greenfield versus Merger & Acquisition FDI: Same Wine, Different Bottles?*", 2014

A company's success is often based on its intangible assets. Unlike tangible assets, they are difficult to identify, quantify and imitate. The unique combinations of people, processes, brand, and relationships can give to the company an advantage over competitors.⁴

Companies export both physical and intangible assets through FDI, hence foreign direct investments are more likely to have a huge impact in industries with significant firm-specific, intangible, knowledge-based assets (KBAs). MNEs are, in fact, exporters of their KBA and their patents, trademarks, trade secrets, and copyrights.⁵

MNEs might also move to an unattractive location, even without incentives, if their rivals were entering that market: large MNEs cannot afford to give up emerging markets to their competitors by default, and so follow their rivals into the developing countries' markets.

Host countries benefit from these investments, as they receive multinationals' funding and taxes. FDI inflows are important indicators for its process of internationalization.

Developing countries have seen a significative increase of FDI inflows in the last decades; multinationals invested in the country and improved infrastructure, built new ones, and created employment in these countries.

Developed Economies rely on FDIs too: they are in fact the major source and host of FDI investments. In these countries most of the investments are via mergers and acquisitions between mature companies.

1.3.1. Advantages for hosting economies

FDIs are a great leverage for the host country too: when multinationals enter in a foreign market, they import their *know-how* and engage competition with local firms. As a result, they lead to a more open market.

In fact, when a company enters in a foreign country, it influences and often enriches the host economy. Recipient businesses incorporate the latest technology, operational practices, and financing tools, while suppliers are stimulated to improve their quality control, managerial

⁴ "S. K. Dutta, *"Intangible Assets as a Source of Competitive Advantage"*, 2008

⁵ European Business Review, Vol. 17 No. 1., Georgios Zekos, University of St Andrew, *"Foreign direct investment in a digital economy"*, 2005

efficiency, and marketing.⁶ Thanks to this, both suppliers and competitors are stimulated to provide better services than before, and the resulting competition ultimately favors the customer.⁷

Finally, recipient countries see their standard of living rise. FDI inflow brings direct flows of capital, new jobs, new infrastructure in the host country and they encourage technological development.⁸

For these reasons, countries take various institutional measures for attracting FDI through liberalization, infrastructure improvement, human capital development and investment incentives. Since 2007, more than 100 economies across the world, from both developed and developing world, have adopted formal industrial development strategies. According to 2018 UNCTAD's global survey of industrial policies they account for more than 90 per cent of global GDP. Moreover, the last five years have seen an acceleration in the formulation of new strategies to attract these kind of foreign participation in the local economy.⁹

1.3.2. Disadvantages for hosting economies

From an economic perspective, capital inflows resulting from foreign direct investment are often accompanied by higher, longer term outflows that do not benefit the host government. For example, multinationals may prefer to use suppliers in their own countries rather than develop local supplier networks, losing one of the major benefits from FDI inflows.

Foreign investors might also strip the business of its value without adding any. They could sell unprofitable portions of the company to local, less sophisticated investors. They can use the company's collateral to get low-cost, local loans. Instead of reinvesting their profit, they may lend the funds back to the parent company¹⁰.

⁶ Wilson Perez Nunez, *"Foreign Direct Investment and Industrial Development in Mexico"*, Paris: OECD, 1990

⁷ Rivista Italiana di Economia Demografia e Statistica, G. Bergamo, C. Pizzi: *"Foreign Direct Investment and Psychic Distance: a gravity model approach"*, 2014

⁸ Dunning, J.H. and Narula, R., *"Foreign Direct Investment and Governments"*, 1994.

⁹ UNCTAD, *"World Investment Report 2018 – Investments and new Industrial Policies"*, 2018

¹⁰ Online business Encyclopedia, K. Amadeo, *"Foreign Direct Investment, Its Pros, Cons, and Importance to You"*, 2018

Despite the risks for hosting economies, the global attitude towards FDI is trusting. Globalization trends are in fact characterized by worldwide structural reforms, such as trade and investment liberalization, increased trade and international investment flows.

In the last years an increasing number of countries adopted liberalization policies to encourage the diffusion of FDI. This trend was confirmed in 2017, since 47 out of 63 new measures adopted have been aimed at promoting and facilitating foreign direct investments. Of the remaining, on the other side, only 9 introduce explicit restrictions or regulations to FDI.¹¹

1.4 Global FDI trends in the last decade

Foreign Direct Investments are a remarkable global source of finance for countries; according to UNCTAD's WIR18, in 2017 they made up to 39 per cent of total incoming finance in developing countries, becoming *de facto* the largest external source of funding for these economies.

As shown in **Figure 1.1**, developed economies are still the wider recipients for FDIs, with United States of America as top host economy in both 2016 and 2017 (data on single countries will be furtherly discussed in the sub-chapter 1.5).¹²

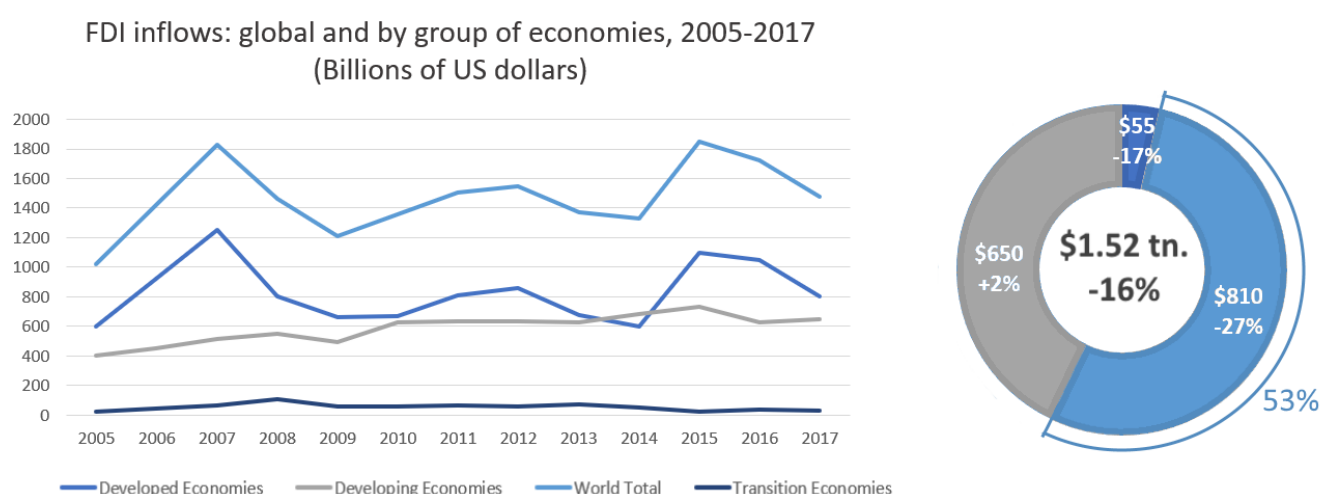


Figure 1.1. – FDI global inflows 2005-2017. Data source: UNCTAD, World Investment Report, 2018

¹¹ OECD Reports, “World Investment Report 2018 - Investment and New Industrial Policies”, ch.2, Regional Trends, 2018

¹² OECD Reports, “FDI IN FIGURES: FDI gains momentum in second half of 2014”, April 2015

As shown in the figure, FDI inflows had a contraction in correspondence of the 2008 financial crisis, and, since then, they recovered modestly but constantly except for a deep contraction in 2014.

A large part of the 2014 negative result is due to the Q1 Vodafone-Verizon financial agreement: the British company Vodafone, in fact, dissolved its joint venture with Verizon, renouncing to its 45% shares of the American company. The transaction, an agreement worth \$130 billion, saw the British company exiting from the Verizon shareholding, which has become completely American. Considering FDI inflows only, this resulted to be a divestiture by a foreign investor not counterbalanced by an incoming foreign investment. The result is hence biased, being the control of the American company Verizon passed into American hands.

Despite the Q1 influenced results, FDI inflows have seen a positive overall trend in the other quarters, in line with in the past ten years results; however, in 2017 global FDI flows fell by 23 per cent to \$1.43 trillion. The strong inflow decrease remain significant even discounting the large one-off deals and corporate restructurings that inflated FDI performances in 2016.

This negative outcome is caused by several factors, one of which is the digitalization of companies and the diffusion of e-commerce sales. Digital commerce has, in fact, intrinsic characteristics that are profoundly different from traditional channels, and it can operate requiring less capital investment.¹³ As discussed in UNCTAD's WIR17, digital economy is a key driver of growth and development. Yet, digital multinational companies make about 70 per cent of their sales abroad, with only 40 per cent of their assets based abroad. Digital companies rely do not need physical stores to sell their products, consequently they cut expenses on foreign presence, being able to manage their business from the home country. As understandable, the impact of digital MNEs on host countries is less directly visible in

¹³ OECD Digital Economy Papers, No. 40, *"Economic and Social Impact of E-commerce: Preliminary Findings and Research Agenda"*, 1999

physical investment and job creation, so these Foreign Direct Investments are often defined as asset-light forms of investments.¹⁴

The weight of information and communication technology (ICT) MNEs in international production has increased dramatically in the last five years. Between 2010 and 2015, the number of tech companies in UNCTAD's ranking of the top 100 MNEs more than doubled. The assets of these MNEs increased by 65 per cent and their operating revenues and employees by about 30 per cent, against flat trends for other top 100 MNEs. The importance of digital MNEs – including internet platforms, e-commerce and digital content firms – is growing rapidly and this shift is partially reflected by the declining amounts of FDI.

However, many factors contributed to the decline in FDI. UNCTAD officials noted that the negative FDI trend is caused in large part by a decrease in rates of return.

Table 1.1. below shows the trend of inward FDI rates of return in the past five years:

Table 1.1. Inward FDI rates of return, 2012-2017 (Per cent)						
Region	2012	2013	2014	2015	2016	2017
World	8.1	7.8	7.9	6.8	7.0	6.7
Developed economies	6.7	6.3	6.6	5.7	6.2	5.7
Developing economies	10.0	9.8	9.5	8.5	8.1	8.0
Africa	12.3	12.4	10.6	7.1	5.4	6.3
Asia	10.5	10.8	10.6	9.9	9.5	9.1
East and South-East Asia	11.5	11.8	11.7	11.0	10.3	10.1
South Asia	7.2	6.7	6.1	5.5	6.4	5.7
West Asia	5.5	5.4	4.9	4.6	4.6	3.4
Latin America and the Caribbean	7.9	6.7	6.6	5.2	5.3	5.6
Transition economies	14.4	13.9	14.6	10.2	11.1	11.8

Table 1.1 – Inward FDI rates of return % (12-15) – Source: UNCTAD based on data from IMF Balance of Payments database

As shown, the global average return on foreign investment is now at 6.7%, down from 8.1% in 2012. Return on investment is in decline across all regions, with the sharpest drops in Africa and in Latin America and the Caribbean.¹⁵

¹⁴ UNCTAD, "World Investment Report 2017 - Investment and the Digital Economy", 2017

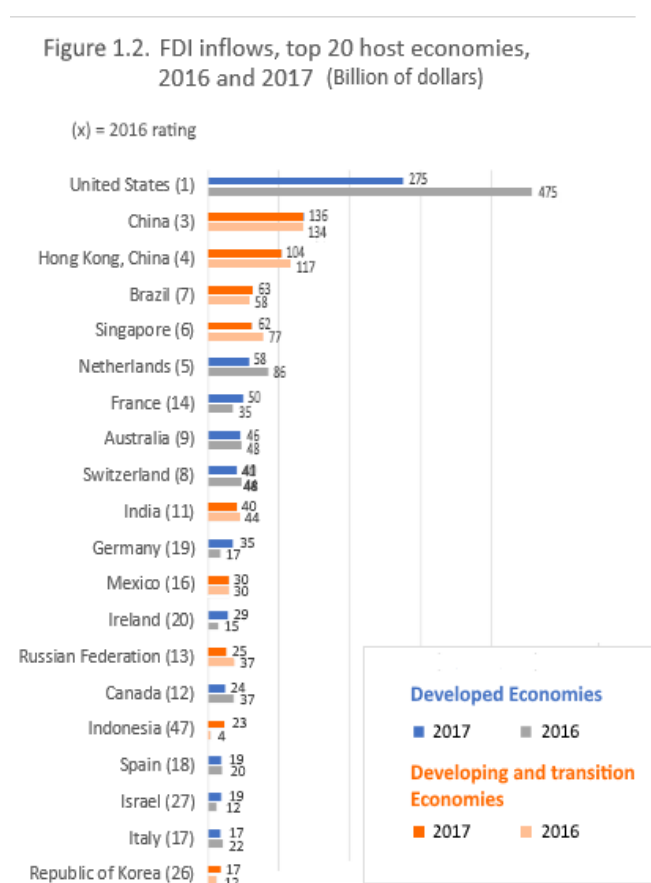
¹⁵ UNCTAD, "Global foreign direct investment slipped in 2017", Jan 2018.

The decline of global FDI flows is in contrast to other macroeconomic variables, such as GDP and trade growth, which saw substantial improvements in 2017, as in previous years. Higher economic growth projections, trade volumes and commodity prices would normally point to a potential increase in global FDI in 2018, but elevated geopolitical risks and policy uncertainty could have an impact on the scale and contours of any FDI recovery in 2018.¹⁶

1.4.1 FDI inflows - Modern trends by geography

As said, world total inflow decreased by a 23 per cent between 2016 and 2017, caused by a return to normality after a spike in 2016 caused by an unusual FDI inflow in United States.

The return to normality caused a decline of 40 per cent in inflows to the United States to \$275 billion in 2017. Nevertheless, USA remained the largest recipient of FDI (see **Figure 1.2**). Inflows to developed economies were mainly constituted by cross-border M&As and corporate reconfigurations.



FDI inflows to developing economies remained close to their 2016 level, at \$671 billion. FDI flows to developing Asia were stable at \$476 billion. Half of the top 10 host economies are instead developing economies.

China continued to be the largest FDI recipient among developing countries and the second largest in the world, behind the United States.

The increase in FDI flows to Latin America and the Caribbean constituted the first rise in six years, but inflows are still below the peak reached in 2011 during the commodity boom.

Figure 1.2. – Top 20 host economies, FDI inflows, 2016-2017.
Source: UNCTAD, FDI/MNE database

¹⁶ Nasdaq Online Journal, “Foreign Direct Investment Drops Ahead of Protectionism and Trade Wars”, April 2018.

FDI flows to transition economies in South-East Europe declined by 27 per cent in 2017, to \$47 billion, following the global trend. This constituted the second lowest level since 2005. Most of the decline was due to sluggish FDI flows to four major CIS economies: the Russian Federation, Kazakhstan, Azerbaijan and Ukraine.

1.4.2 FDI inflows - Modern trends by sector

Led by industries such as finance, business activities, trade and telecommunication, services account for the major share of foreign direct investments. By 2015 about two thirds of global FDI stock was concentrated in the services sector, in line with its share in the world economy. On the other side, manufacturing and the primary sector accounted for 26 per cent and 6 per cent, respectively.

The long-term shift toward services has plateaued since the outbreak of the global financial crisis (**Figure 1.3**).¹⁷

The composition of services FDI shows that the estimates of FDI breakdown tend to provide an inflated impression of the real impact of the services sector in cross-border investment. In fact, industry classifications in reported FDI are based on the economic activity of foreign affiliates, rather than the industry of the multinational enterprise to which they belong. Hence services-like activities performed by affiliates of manufacturing MNEs as regional headquarter functions, back-office functions, financial holdings, procurement or logistics hubs, distribution or after-sales services, and research and development enter in the service category, increasing their impact to the detriment of manufacturing FDI.

Knowing the phenomenon while approaching the data, the shift showed in Figure 1.3 is nothing more than a further indication of the digitalization experienced by companies in the last decades.

¹⁷ [UNCTAD, "World Investment Report 2017 - Investment and the Digital Economy", 2017](#)

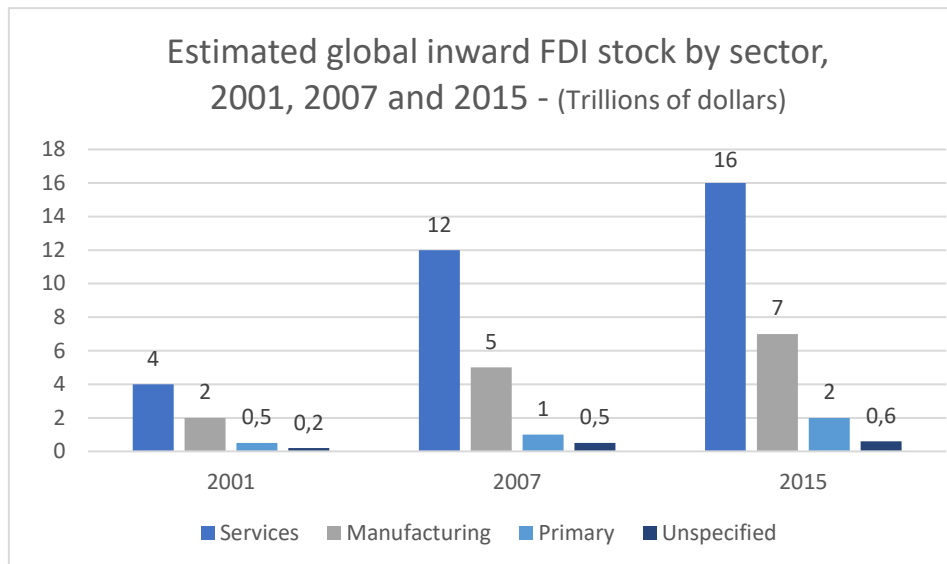


Figure 1.3. – *Services is gaining increasingly statistical relevance in global FDI inward divided by sectors.*
Source: UNCTAD, FDI/MNE database

As mentioned, the total value of cross-border continued to grow until 2015, where it reached \$1.869 billion -the highest level since the outbreak of the global financial crisis. In this timespan cross-border FDIs increased across all three sectors, but particularly in major industries such as electronics and food and beverages, as in services sectors.

The 2017 M&A contraction already discussed previously in the chapter has interested all three sectors. The drop in the primary sector was sharp – by 70 per cent – to only \$24 billion in 2017. At the industry level, extractive industries, food and beverages, and electronics registered the largest declines in value terms.

In contrast, the value of business services, as well as information and communication services increased considerably, underlining the modern economical shift toward digitalization.

1.5 Italian FDI inflows trends

In 2017, net FDI inflows for Italy was 19,838 million US dollars.¹⁸ Though Italy net FDI inflows fluctuated substantially in recent years, it tended to increase through 1998 - 2017 period after the global economic crisis in 2008. As showed in **Figure 1.4**, however, the country is still far from its pre-crisis levels.

¹⁸ [WORLD DATA ATLAS, ITALY study "Net foreign direct investment inflows data", 2017](#)

In 2017, in fact, net inflows in Italy were \$17 billion, equivalent to 0.91% of its GDP, while in 2007 they accounted for 1.8% of GDP.¹⁹

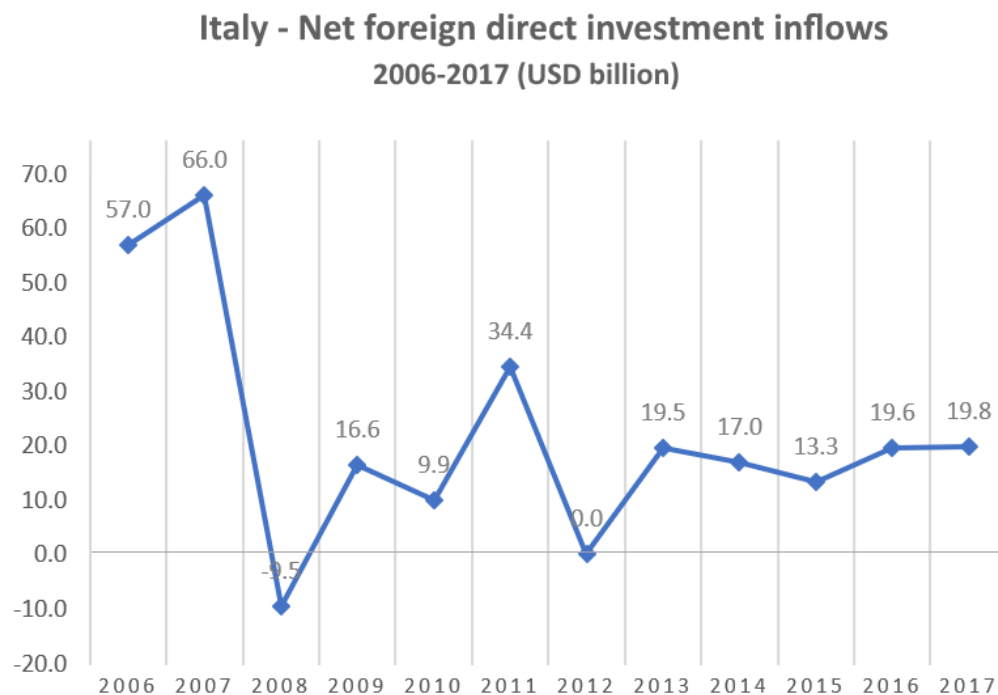


Figure 1.4. – Italy - Net foreign direct investment inflows in current prices. Source: WORLD DATA ATLAS

Compared to its European neighbors, Italy currently attracts little FDI: it ranks 19th host economy, after Netherlands (\$ 58bn), France (\$ 50bn), Switzerland (\$ 41bn), Germany (\$ 35bn) and Spain (\$ 19bn) despite an elevated GDP.

Italy has a qualified workforce, with technical knowledge and experience in high-quality production, however the procedural costs are among the highest in Europe and the country presents also a slow administration processes. Italian characteristics compared to European countries will be discussed in detail in Chapter 3 and 4.

1.6. Digitalization and effects on international commerce

The adoption of digital technologies in global supply chains across all industries will have profound effects on international production.

¹⁹ Ternopil National Economic University, A. Nana, A. Gyanowa, "[Foreign Direct Investment of Italy – An overview](#)", 2017

MNEs locate their activities abroad where they can benefit from market power expansion or location-specific advantages. Market expansion and cost reduction are two advantages that MNEs pursue through FDI. Local policies and labor market also influence FDI decisions.

However, the characteristics that defined leadership in traditional bricks and mortar organizations are not equally applicable to the e-world environment. Thanks to global connectivity time and space are no longer constraints to digital MNEs, which can trade with several partners. Information on new competitors, products and services is instantly and worldwide available and barriers to entry are normally low. Connectivity and flexibility transform the way new companies can build networks and reach market scale in short timescales.²⁰

The evolving operating models of digital MNEs is under scrutiny of the experts of institutions for the promotion and facilitation of foreign direct investments since some regulations may need to be reviewed to avoid their obsolescence in the digital era.²¹

Most countries are actively pursuing the digital opportunity because of its potential development benefits. The following chapters will examine in depth the European attractiveness to digital FDI, the key choice-drivers and the most recent trends in international agreements to liberalize and control e-commerce.

²⁰ Dussart, C. (2001), "[*Transformative Power of E-Business over Consumer Brands*](#)", European Management Journal

²¹ [European Commission - Press release, "State of the Union 2017 - Trade Package: European Commission proposes framework for screening of foreign direct investments", 2017](#)

2. The e-commerce evolution

The digital economy is essentially changing the way firms produce and sell their products across borders. Since its birth, e-commerce got an exponential development and became an essential part of global economy. It presents several advantages for firms: digital multinationals can operate overseas with minor physical investments than in the past. Their economic impact in host countries is thus less directly visible in productive capacity generation and job creation; however, the online market is spreading rapidly and requires a major attention to comprehend future economic trends.

The rise of a new commerce era also comes with serious policy challenges – starting with the need to bridge the digital divide. Both the opportunities and challenges are top policy priorities for host countries. The digital transformation of international production has important implications for investments and legislations governing investor behavior. Rules designed for the physical economy may need to be reviewed considering new digital business models. Some countries have already taken steps to modernize policies; others face the risk of letting rules become obsolete or of unintentionally slowing down digital development. These important consequences will be discussed in **Chapter 6**.

2.1. A brief history of e-commerce diffusion

The traditional e-commerce, intended as a virtual platform for online commercial transactions, was born in the '70s with EDI (Electronic Data Interchange), the first electronic service used by large companies through private telecommunications networks. The integration of the EDI system to the Internet, and therefore public communication, led to the creation of a flexible system that is closer to the e-commerce standard known today.

In 1994 Netscape launched its browser navigation services and gave a significant boost towards the creation of specific e-commerce websites. In this period several portals for online purchases were born; among them there were the American Amazon and E-bay, today known as two giants of the sector. The diffusion of e-commerce has been slowed in its first years by the lack of high-speed internet connections and the limited amount of regular online buyers in this first e-commerce period, but toward the end of the twentieth century the introduction of high-speed ADSL allowed a wider diffusion to online shopping.

Since then, the online shopping had an unstoppable rise in almost all markets. In 2017, retail e-commerce sales worldwide amounted to 2.3 trillion US dollars and e-retail revenues are projected to grow to 4.88 trillion US dollars in 2021, if trends remain constant.²²

Figure 2.1 shows Retail e-commerce sales worldwide from 2014 to 2021 (in billion U.S. dollars). The trend showed has been starkly and constantly positive in the last years.

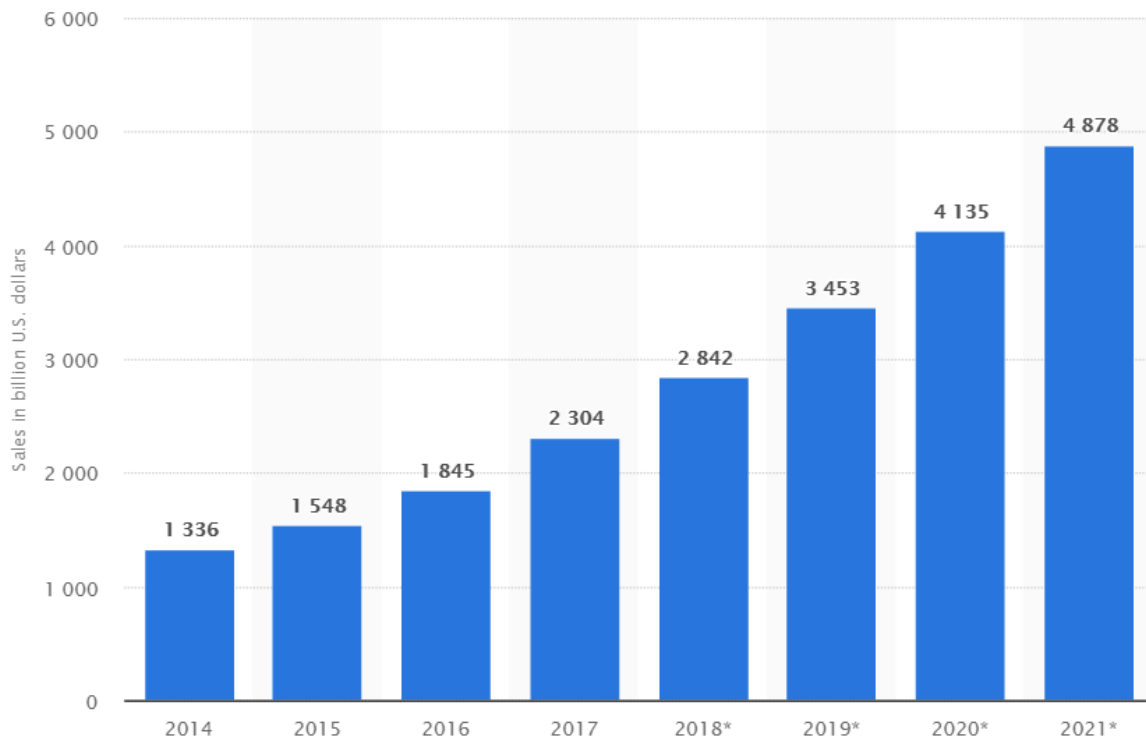


Figure 2.1. - Retail e-commerce sales worldwide from 2014 to 2021 (in billion U.S. dollars)

In 2017, the top 3 online stores' revenue amounted to almost 100 billion US dollars. Online shopping usage varies by region - in 2016, an estimated 19 percent of all retail sales in China occurred via internet but in Japan the share was only 6.7 percent. Personal computers are still the most popular device sold through online shopping, followed by mobile devices.

²² Statista, the online Statistics Portal, "Retail e-commerce sales worldwide from 2014 to 2021", 2018

It is also interesting to observe how and in what measure online shopping has penetrated today's global markets. **Figure 2.2** ranks countries with the highest online shopping penetration rate as of the second quarter of 2017.²³

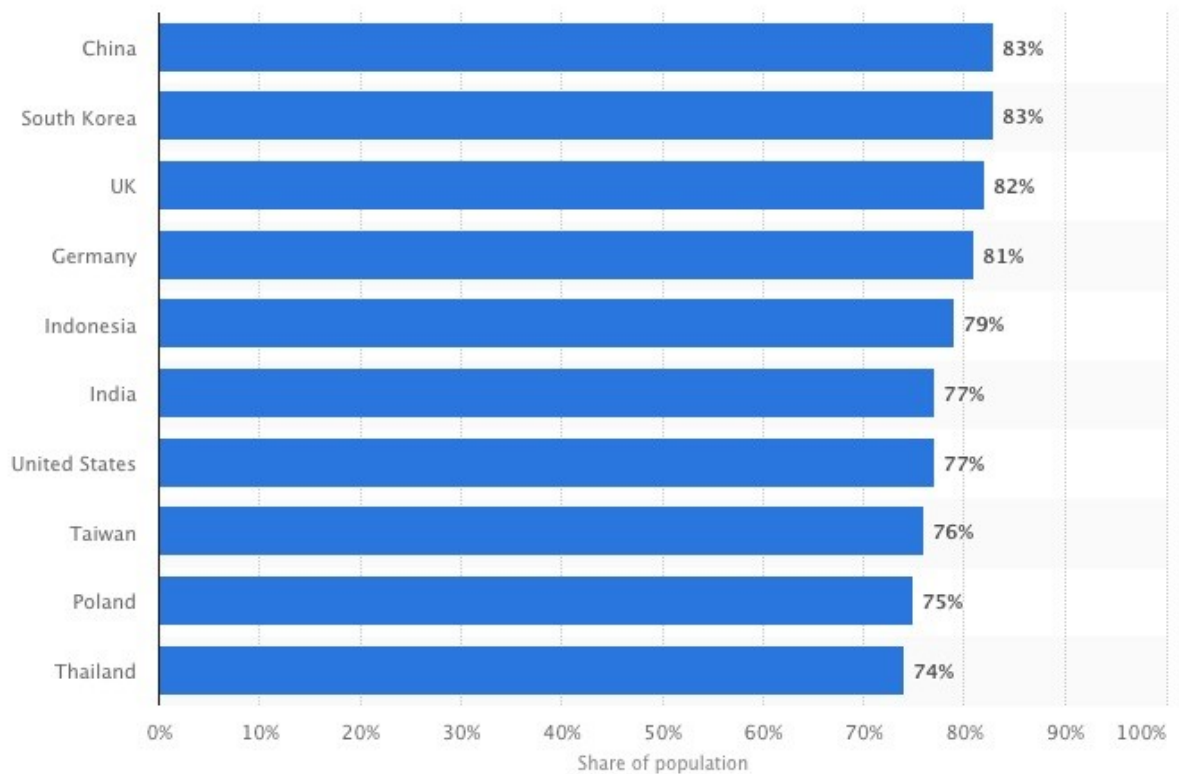


Figure 2.2. - Top-ten countries with the highest penetration rate of online sales, as of Q2 of 2017 – Source: statista.com

China and South Korea are the leader countries of this ranking: 83 percent of the online population of these two countries had bought at least one product online during the observation period. The Asian market growth caused a decrease of the American participation percentage, that in 2015 represented 22.2% of the global eCommerce market and that this has fallen to 19.9% in 2017, suggesting a major growth expected for the oriental market.

These data are widely driven by the growth of the e-commerce giant Alibaba: the company confirmed itself as the absolute leader of online sales for 2017, with 488 million users in the year. USA stops instead in seventh place, while the European online market grows exponentially driven by UK and Germany.

²³ Statista, the online Statistics Portal, "Global markets with the highest online shopping penetration rate as of 2nd quarter 2017", 2017

2.2. E-commerce by product categories

As mentioned, the growth of online sales does not apply to all product categories at the same way: there is still a lot of difference between the percentage of purchases in store and online shopping among categories.

As shown in **Figure 2.3**, books, music, films and video games are top performers products: in these categories global online purchases exceed more than double the volumes in traditional stores. Toys show a slight overtaking of online over the offline, while the grocery category still struggles to impose over the more traditional purchase in the store, due to a lack of homogeneity of products, consumers' habit and logistic difficulties with fresh products management.²⁴

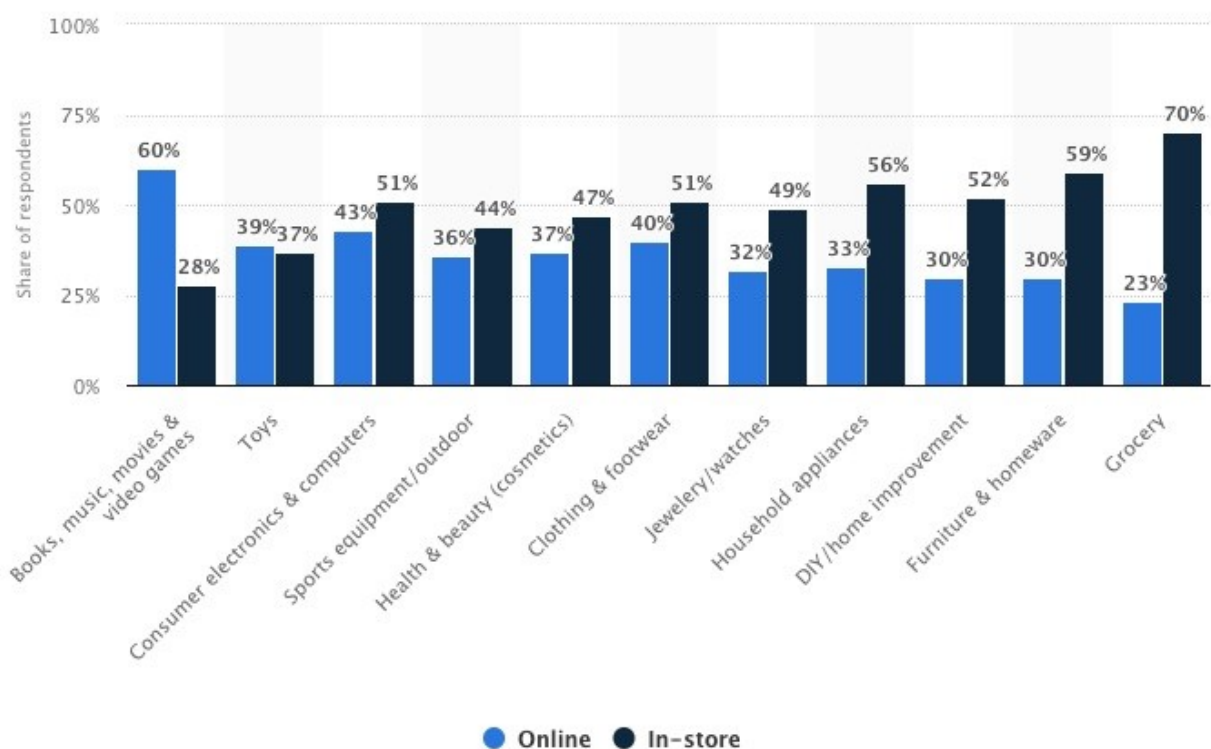


Figure 2.3. – Global comparison among online and in-store shopping preferences divided by product categories, Q2 of 2017 –
Source: statista.com

²⁴ Statista, the online Statistics Portal, "Online or in-store shopping preference for selected product categories by consumers worldwide", 2017.

2.3. Shifting from consumption to e-consumption

E-commerce has reshaped the modern marketplace in recent years; however, this new form of trade comes with its own sets of advantages and disadvantages over traditional methods as brick and mortar establishments.

Among the top advantages for starting an e-commerce business are eliminating geographical limitations and store closure time, gaining new customers with search engine visibility, lower costs for maintenance and rent and create a targeted communication with customers thanks to cookies. E-commerce also provides a retailer the opportunity to improve its customer service. The online portal could offer client support beyond store hours in the form of an FAQ online panel and up-to-date live information.

Nevertheless, starting an e-commerce business includes also core disadvantages, like losing the personal touch of physical retailers, delaying goods or services deliveries, and limiting availability of merchandise as some goods cannot be sold online. Consumer's reticence to buy something that cannot be touched or experienced before the purchase must be considered too; as the fear of scams or poorly reliable e-commerce website. These disadvantages make difficult for SMEs to get customers' attention.

The modern economic trends suggest that e-commerce, few years ago saw as a plus service, is now becoming a necessity for companies to make their voices heard in an open and crowded market.

Consumers are becoming more internet savvy and move more towards online shopping. According to a 2015 study of the United States E-commerce Foundation, nearly 90% of consumers perform checks online before making a physical purchase at the store.²⁵

Online store catalogues are therefore one of the most beneficial aids in shopping quests. These modern trends show how e-commerce would be a necessity for all retailers going forward.

²⁵ United States E-commerce Foundation, Press Release, "2017 United States B2C E-commerce Report", 2017.

2.4. The Italian e-commerce market

In 2017, based on Netcomm's market research, Italian e-commerce market had a remarkable growth of 20%, reaching a value of 23.4 billion euros. In 2015 it amounted to 21 billion.²⁶

The increase was due to a GDP growth of 0.9% and moreover to a greater propensity of Italian customers to shop online.

«The number of e-shoppers has increased by 26% from 2014 to 2016, and even greater was the sales value increase, which over the same period grew by more than a third»

R. Liscia, president of Netcomm and Executive board member of Ecommerce Europe, Netcomm Forum 2017.

Despite these positive data and the wide growth margins, Italy remains one of the least performing countries in Europe in terms of sales volumes. Italy has an online market penetration rate of only 32 per cent, lower than the 57 per cent observed in the euro area.

²⁷ The gap with the best European realities, such as United Kingdom and Germany (respectively 82 and 81 per cent, as shown in 2.1 paragraph) is even broader. Italy is only ahead of Croatia, Bulgaria and Romania, with performances similar to Cyprus and Greece.

According to Eurostat data on 2016 Italian e-consumers, leading consumers in the Italian digital market are assiduous buyers, which buy two or more times a month (51.4%); they are followed by the regulars, which buy around once a month (33.5%), the intensive ones, which purchase online one or more times a week (28.6%). Occasional consumers, attracted by ecommerce only once or twice a year, account only for (4.2%) of the overall. The percentage of those making an average purchase per month is equal to 81% in Italy, a figure slightly higher than that emerged in a similar data in the United Kingdom (76%).²⁸

²⁶ E. Netti, *“Accelera il mercato dell’e-commerce in Italia”*, Il Sole 24 Ore Financial Journal, 2017.

²⁷ Big data Economics Marketing online Research, *“Report e-commerce 2018”*, 2018

²⁸ European Commission, EU Consumer Programme, *“Consumers' attitudes towards cross-border trade and consumer protection in 2016”*, 2017

At the regional level, Italian e-consumers are concentrated in the North (Valle d'Aosta and Trentino-Alto Adige in first place, with 39%, followed by Lombardia with 38% and Veneto with 37%) and it decreases in the South (Calabria with 15% and Campania with 14%).

In Italy, almost three out of four companies (72%) have a channel that would allow online sales, but only one in ten receives orders.²⁹ The cause is to be found in the Italian industrial composition, characterized by several small family businesses.

Large companies, in fact, reduced their gap with European competitors, while small and medium-sized companies saw it increase. The revenue produced by Internet activities in 2016 from the latter was in fact equal to 6% of the total in 2016, compared to 8% in 2015.

Small and medium-sized enterprises are disadvantaged by the lack of notoriety and their limited logistical capabilities. Moreover, the creation of an appealing and functional e-commerce portal requires notions of computer programming or, at least, a capital to be invested in an external graphic studio. Finally, an increasing number of medium to large companies rely on Search Engine Optimization mechanisms, often provided by specialized consulting firms. In this context small and medium enterprises face great difficulties to be noticed.

These companies could however benefit from the fame enjoyed by Italian products abroad. Italian products, in fact, were historically associated with quality, originality and elegance, especially in the four traditional sectors of fashion, food, furniture and mechanics (automobiles, industrial design, machinery and ships).

Today the famous Made in Italy brand, born to defend genuine products against counterfeit goods, has an undisputed reputation, with a corresponding commercial advantage.

For this reason, a solution could be the creation of a web portal to promote the Made in Italy in the world: such a portal could gather the many small, quality-production Italian companies and give them the notoriety necessary to reach foreign markets, reducing costs thanks to economy of scale.³⁰

²⁹ ISTAT Annual Reports, *"Rapporto sulla Conoscenza 2018"*, 2018.

³⁰ Il Sole 24 Ore Journal, C.Milani, *"E-commerce in Italia al microscopio: migliora ma per le piccole imprese è l'anno zero"*, 2017

Made in Italy has still great resonance and impact on international markets. The trend of goods sales abroad shows in fact excellent results: Italian exports have grown by over 30% since 2010, and in 2017 the food sector alone exported goods for 38 billion euros.³¹

2.4.1. Considerations on small and large excellences of Made in Italy

Exports have been a fundamental driver of Italian growth in the post-crisis period; however, it should be recognized that only excellent products have recorded growing sales.

Eataly is an example of Italian excellence abroad, as the company became a worldwide phenomenon thanks to its successful marketing campaign centered on the Italian excellence in food sector. Founded in 2004 by Oscar Farinetti, the company is a store chain of Italian products in Italy and abroad. Today it counts 38 stores in the world, and other 15 are scheduled in USA, Asia, Russia and Australia.³² In 2015 Eataly Net, the online shopping subsidiary of Eataly, has signed a contract with Amazon for the distribution of Italian fresh food in NYC.³³ The partnership arrived after long negotiations, since the Eataly founder Farinetti did not consider Amazon able to enhance the Italian food quality.³⁴ Once strengthened its position in the online American market, Eataly stopped the partnership and started to sell autonomously. Today Eataly sells only through its store chain and its personal online channel.

As announced in 2014, Eataly Net was supposed to enter the American market without relying on Amazon. However, at the beginning of its online experience in USA, Eataly's online store recorded a revenue of only \$5 million in 2014, compared to an Amazon's revenue of \$22.7 billion. Amazon furthermore had a food distribution service already established in the United States at the time. This led to a temporary partnership among parties, until the Eataly brand was well established in the market.

³¹ La Voce Journal, I. Lagrosa, J. Tozzo, *"Export, piccolo miracolo italiano a rischio Trump"*, 2018

³² Corriere della Sera Journal, D. Polizzi, *"Eataly sbarca in America, accordo da 800 milioni per nuove infrastrutture"*, 2016

³³ Economy Up, L. Maci, *"Eataly in affari con Amazon, venderà cibo online a New York"*, 2015

³⁴ Fatto Quotidiano Journal, P. Rossa, *"Eataly pronta a vendere prodotti freschi online"*, 2014

Eataly was able to impose its brand worldwide thanks to a rapid expansion that made the brand well known around the globe. However, its image of Made in Italy's quality didn't fit with Amazon's and other big e-commerce worldwide leader.

On the other side, small Italian companies struggle to establish their brand and to be noticed in the huge variety of selection that could be found online. An example of a brand far smaller and less known than Eataly, but still symbol of great quality and virtuous example of Made in Italy, is the ALISEA company.

ALISEA was founded in 1994 as a gadget manufacturer company reusing and recycling raw materials. Given the nature of its first commercial contracts, its products were limited editions and bore the name of the client companies. In 2005 the company decides to translate its *know-how* into the first product of its own exclusive trade, the pencil *Perpetua*. This pencil is composed by the patented material Zantech, made up of 80% recycled graphite obtained from waste from Italian industrial production that would be otherwise considered waste material. The product is a virtuous example of green economy and excellent design: *Perpetua* in fact won several awards and honorable mentions in Italy and USA.³⁵

ALISEA and *Perpetua*, however, are almost unknown by regular customers both nationally and internationally. As I discovered during my internship in Amazon, the company entered in Amazon Retail in January 2017, but at the end of the year still struggled to achieve notoriety on the portal. Providing my support to the company, I suggested them to use a different format for their product pages, the A+ Content. Amazon offers in fact this free service to its vendor, allowing to integrate detailed descriptions, images, charts and narrative copy in the standard product page to help customers make informed buying decisions. A+ Content service perfectly matched with ALISEA's the goal to show of the innovative concept behind the *Perpetua* product.

Amazon intern researches show that, A+ Content can increase sales on average 3 to 10 per cent by educating the consumer about a product features and its brand. Nespresso largely uses it to spread the message of the Italian coffee excellence.³⁶

³⁵ *Perpetua* Official Site, Award section, 2018

³⁶ CPC Strategy Online, T. Johnson, "*What is Amazon A+ Content?*", 2018

However only already well-known brands benefit from A+ content since customers struggle to discern quality products from mediocre ones among the numerous offers of the Amazon portal. The structure of the e-commerce site, focused on offering a large variety of products of every quality, is not suitable for enhancing niche and quality products.

For these reasons, the creation of an effective and 100% national e-commerce network remains valid for all Italian excellence companies. The possibility to join the Italian excellence brands in an ad-hoc e-commerce website has already been explored by Confindustria with *Storytalia*, by the *E-Italy* portal and many others. All these platforms recognize the potentiality of Made in Italy abroad but struggle to stand out in the global market because of their prohibitive costs.³⁷

³⁷ La Mescolanza Online Journal, “*Chiude il sito Storytalia*”, 2015

3. European FDI: overview of Trends & Highlights

The rapid growth of e-commerce and e-commerce-related activities have characterized the world economy in the last decade. Therefore, also FDI in the e-commerce sector increased accordingly.

To figure out which countries are more attractive to private investors for a FDI in the sector (see the econometric model and its conclusions in **Chapter 5**), we created our own library of individual cases. We used data from both the *FDI Markets* and *Zephyr* databases to get an overview respectively of Greenfield and Merge and Acquisition operations in the subsectors of our interest in the regions of our interest.

The collected data examine 43 countries of geographical Europe: the inclusion of many States, even outside the euro area, allows us to observe the trends that occur between EU and neighboring countries giving us a broader picture. The analysis becomes therefore more reliable with a greater number of countries, because it is easier to identify the intrinsic characteristics of a State that have a positive or negative correlation to the FDI phenomenon. In this and the following chapter we summarize both Greenfield and M&A investments to get a qualitative and quantitative analysis of the e-commerce market in Europe, without losing sight of global context. All tables and graphs presented in these chapters without the mentioned source shall be considered taken from the FDI Markets or the Zephyr database, except where specified otherwise.

Between January 2003 and May 2018, a total of 59,278 FDI projects were recorded in the European Union, equating to a 23% share of global FDI. These projects represent a total capital investment of \$3,422.73 billion, which is an average investment of \$36.90 million per project. During this period, a total of 6,240,512 jobs were created. **Figure 3.1** gives an overview of European FDI market in the past fourteen years. It is possible to notice the 2008 world financial crisis followed by a slow, but constant recovery.

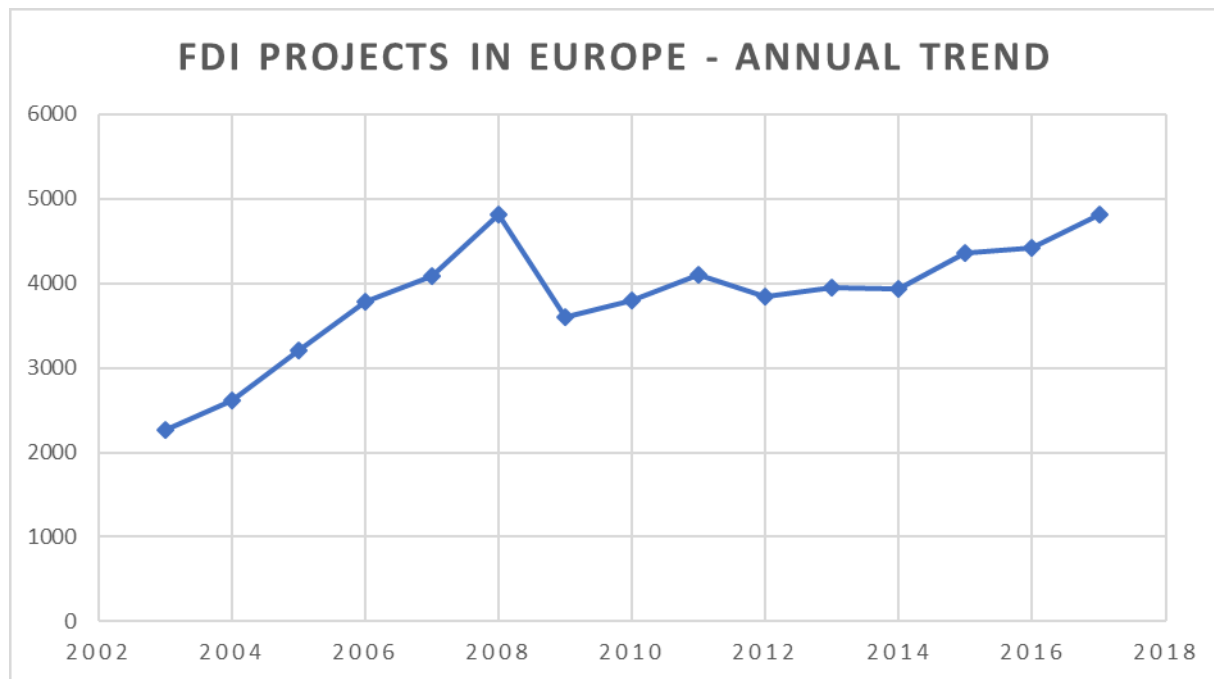


Figure 3.1 - European FDI trend from 2003 to 2018: the graph shows the slow, but constant recovery from the world crisis of 2008. Source: data gathered and filtered from FDI Markets.

Destination Country Trend - **Table 3.1.** gives instead a breakdown of European FDI trends based on Destination Country from 2003 to 2018. The table shows the capital expenditure (capex) and the number of jobs created.






	Country	No. projects	Capex [bn]	Jobs created*
	United Kingdom	14,525	650.4	910,307
	Germany	11,016	268.7	443,222
	France	7,039	185.5	359,73
	Italy	2,263	115.2	135,541
	Netherlands	3,097	103.6	148,251

Table 3.1: Top 5 host European countries in e-commerce-related sectors – FDI and Zephyr database.

* Jobs data available for greenfield investments only.

United Kingdom is the top host country for the period considered; UK received the largest number of projects, with a total capex equal to 25.47% of the overall capital expenditure in Europe in the period considered. German in second top host country with less than a half capital expenditure attracted. Romania is ninth for Capex with only \$509.4 million attracted

in the fifteen years, however it holds the record for the largest number of jobs created: manpower-intensive investments are concentrated in Romania because of its lower labor cost (see **Chapter 5** for detailed study).

To identify relevant FDI transaction in the two databases we had to state the nature of e-commerce relevant to our analysis. E-commerce, according to the definition on the Eurostat website: "... can be defined as the sale or purchase of goods or services, whether between companies, families, individuals or private organizations, through electronic transactions conducted via the Internet or other computer-mediated networks".³⁸

This definition, however, is too vague for the sake of an econometric analysis. Today, every company uses Internet to a certain extent: gathering a wide pool of different data would distort information and would make it impossible to identify trends and correlations of the phenomenon.

I therefore excluded online financial and banking consultancy services. In these two segment it is difficult to identify investments related specifically to the *online* part of the business. Furthermore, these services require the attention of qualified personnel and are not in line with the phenomenon of automation, economies of scale and disruptive economic that this thesis aims to analyze. For similar reasons we also excluded online marketing and graphics services, which do nothing but include the new communication technology in their work. Finally, I have excluded investments that bring the Parent Company to less than 10% of total ownership of the foreign activity. This is an arbitrary share that refers to the defined standard of the International Monetary Fund and the OECD, below which an investment is considered a hedging operation and it is therefore negligible as FDI.

3.1. The European Digital Single Market

E-commerce is a growing phenomenon across Europe, however it is not exploiting its full potential. The European Commission is proposing an ambitious digital strategy to reverse the fragmentation of internet shopping and other online services as network advertising and telecommunications.

³⁸ Eurostat – Statistics explained, "*Glossary: Ecommerce*", 2016

This solution, called Digital Single Market,³⁹ was announced in May 2015 by the Juncker commission, and is part of the Digital Agenda for Europe 2020 program, which is, in turn, part of the Europe 2020 strategy.⁴⁰ The European Commission has identified the completion of the Digital Single Market (DSM) as one of its 10 political priorities. The aim of the digital single market is to tear down regulatory walls and finally move from 28 national markets to a single one to increase cross-border e-commerce and further develop the digital economy.

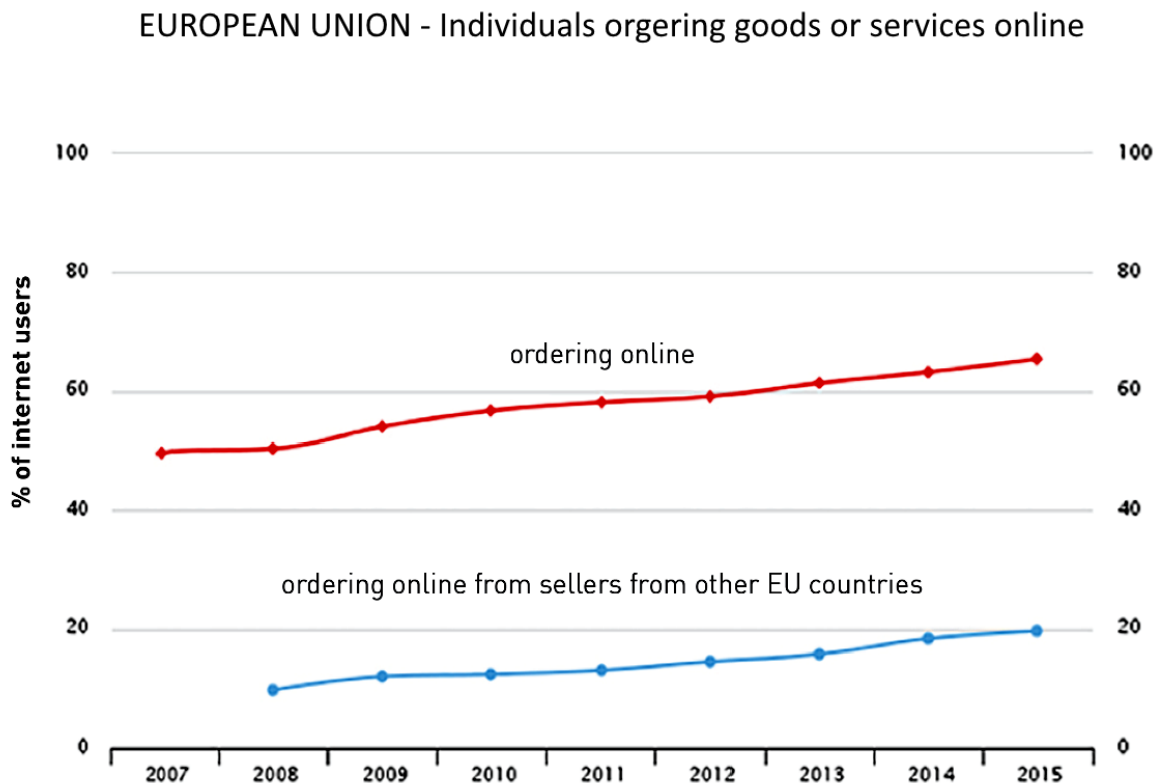


Figure 3.2. - *Individuals ordering goods or services online from their country and from other EU countries at comparison. Source: European Commission Digital Scoreboard*

Today, cross-border internet buying and selling are still underdeveloped, obstructed by varying VAT rates, company mechanisms and deliberate blocking of services. Shoppers on the other hand are also deterred from buying online in a foreign country because of the amount of personal information demanded and by the uncertainty regarding after-sale services, for

³⁹ European Commission, “Digital single market - Bringing down barriers to unlock online opportunities”

⁴⁰ Digital Agenda for Europe, Official EU Site

instance in case of returns. Only 20% of online shoppers in the EU bought something in another country, according to the European Commission Digital Scoreboard⁴¹, as shown in **Figure 3.2**.

According to the European commission vice-president, Andrus Ansip, the European GDP could be increased by €415bn each year and create hundreds of thousands of new jobs, if a harmonized market in digital services was established. However, consumers and traders need certainty to be confident to buy and sell online. The European Commission is working on a number of legislative proposals and actions to support the development of the digital economy and boost cross-border e-commerce.

In April 2018, the Commission published the 'Guide for revitalizing and modernizing the small retail sector'.⁴² The guide identifies positive examples throughout the EU of strategies to attract people, and small and large retailers back to city centers. These can serve as inspiration to authorities pursuing their urban development objectives.

The Commission is also targeting the objective to facilitate retail establishment and reducing operational restrictions. In April 2018, the EU provided guidance also for EU countries' efforts to create a more open, integrated, and competitive retail market.

On the European Commission official website are published many other working documents that target many aspects of the digital commerce. For example, communication on the retail sector, restrictions and freedom of EU retail establishment, workable solutions to strengthening the competitiveness of the European retail sector. The Commission has engaged in discussions with the stakeholders directly concerned, including retailers, retail associations, representatives of civil society and EU countries to study retail operational restrictions. EU countries were also consulted through meetings of the Services Directive Expert Group.

⁴¹ Business Europe, *"Stimulus for e-commerce positive - but doubts on geo-blocking initiative"*, 2016

⁴² EU Publications, *"Practical guide for fostering the revitalisation and modernisation of the small retail sector"*, April 2018

As regards the latter, the Commission has also developed and published in the Communication the 'Retail Restrictiveness Indicator' (RRI)⁴³ to provide a useful snapshot of the state of play in EU countries. The indicator is a dynamic monitoring tool to measure authorities' efforts to reduce retail restrictions in EU countries, and the impact of such reforms on market performance. A statistical assessment of the indicator's framework has been carried out by the Joint Research Centre (JRC) Competence Centre on Composite Indicators and Scoreboards (COIN).⁴⁴

⁴³ European Commission, Press Release, *"Strengthening the competitiveness of the European retail sector"*, April 2018

⁴⁴ Competence Centre on Composite Indicators and Scoreboards (COIN) , *"The JRC Statistical Audit of the Retail Restrictiveness Indicator"*, October 2018

4. European FDI Trends by type: Greenfield and M&A

The data used for the study of greenfield investments have been collected from the FDI Markets database.

FDI Markets aims to be a central bank of information on the globalization of business. The service tracks cross-border greenfield investment across all sectors and countries worldwide, with real-time monitoring of investment projects, capital investment and job creation.

The FDI Magazine is core part of the FDI Intelligence portfolio of investment products and services from the Financial Times⁴⁵ and collects all Greenfield Foreign Direct Investment from 2003 onwards.

Project number and destination country trends are not significantly different from the results discussed in **Chapter 3**: as showed, FDI had a contraction in 2008 and a successive graduate recovery. The top host country is UK, with 12,456 investments and \$556,982 million Capex attracted.

Parent Company Trends - Analyzing instead the overall top investors, we can find a peculiar incidence of e-commerce companies: four out of the five more active MNEs from 2003 to 2018 are specialized, or made a huge expansion, in e-commerce (see **Table 4.1.**):

Parent company		No. projects	Capex [m]	Jobs created
Amazon	US	196	11,424.30	20,520
Alticor	US	26	341.10	3,231
Lazada	CH	14	432.30	2,158
Alibaba Group	CH	12	420.00	3,983
Rakuten Group	JP	10	208.6	2,959

Table 4.1. – *Parent company trends in Greenfield FDI, Europe only, from 2003 to 2017. Source: FDI Market database*

⁴⁵ Financial Times Specialist Website, Economic Development & Foreign Investment Professionals Section, FDI Intelligence page.

The top performer is Amazon, with an outstanding quantity of projects (196 investments, almost ten times more than the second ranked). The e-commerce giant is also the first for Average Capex per investment (about 58.3 million per investment). Also Lazada, Alibaba Group and Rakuten are e-commerce companies specialized in good sales with home delivery. Alticor, on the other hand, is a multinational that serves as the parent company for a handful of business ventures, but e-commerce is not its core business.

4.1. Greenfield e-commerce FDI in the European market

To focus on greenfield e-commerce investments in FDI Markets, we have to analyze various subsectors of our interest: FDI Markets, in fact, does not specifically identify e-commerce, but rather divides investments based on the nature of the company's core activity.

E-commerce companies often rely on a virtual platform for their commercial activity. However, despite their numerous similarities in the business model, in the database they are divided by the market that they address; it is hence necessary to gather data from more than one sector to analyze the trade digitization of international market.

The division by subsectors also allows to analyze the rise of e-commerce in different area compared to traditional competitors in the same area: digital MNEs incorporate information technology assets in the traditional business to create ad hoc services relying less on human capital. This evolution may also be disruptive for the economy of the sector where these companies operate.

To simplify the analysis, we divided the e-commerce FDI investments gathered from different sectors depending on the nature of the products that they offer: hence, tangible or intangible assets.

4.1.1. Greenfield e-commerce FDI - Tangible assets

The most peculiar e-commerce subsector is the Non-store retail. Non-store retailing is the selling of goods and services outside the confines of a traditional retail facility. Most of the FDI in this sector are related to e-commerce.

The non-store subsector has exponentially grown over the last years with information technology advancement, internet users and e-commerce goods platforms. **Figure 4.1.** shows, as expected, a relatively limited phenomenon that is now experiencing a huge expansion.

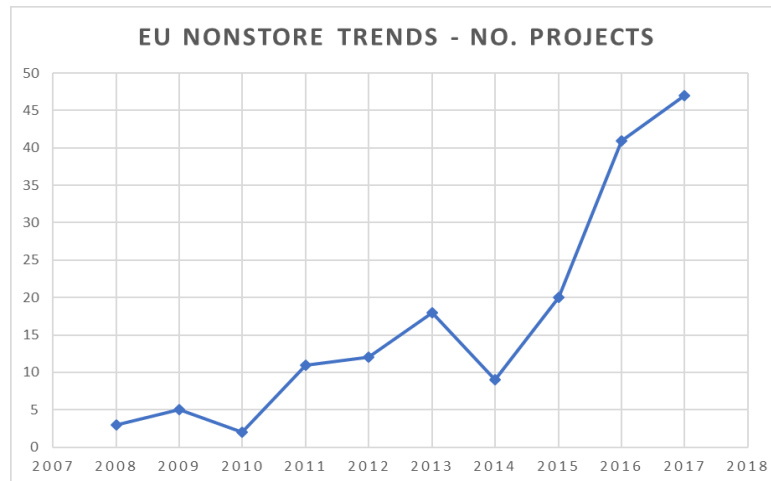


Figure 4.1. – Non-store retail experienced an exponential growth over the last five years.
Source: data gathered and filtered from FDI Markets.

In 2017, 47 projects were carried out in the sector, while the partial data for 2018 suggest that the positive trend will be maintained, with 54 new investments by the end of the year. Overall, 201 investments have been made between 2003 and April 2018 in the subsector, for most concentrated in the last five years.

Consistent to generic FDI greenfield trend, the first host Country is UK, followed by France and Germany.⁴⁶ Italy is fifth, with 15 projects, 928.20 million Capex and 6,140 Jobs created.

Amazon, the everything store - As already mentioned, Amazon is the most active company in Europe in the e-commerce sector, detaining a record for number of projects, capital expenditure and jobs created. The company helped to share the modern e-commerce and it is today one of the symbols of market digitalization.

In 1995, Amazon was one first companies to sell goods on the Internet. It began as an online bookstore, but soon expanded to several other product categories. Over the years, Amazon has expanded in Canada, the United Kingdom, Germany, Australia, France, Italy, Spain, China,

⁴⁶ From 2003 to today, UK attracted more than double FDI than France, accounting for \$4,766.20 million capex against French's \$1,305.5 million. These investments generated 30k more jobs in UK and 7k in France. Source: FDI Markets.

Brazil, Mexico, Japan, the Netherlands and India, and sends its products all over the world. Today, an Amazon share is worth \$1,570.

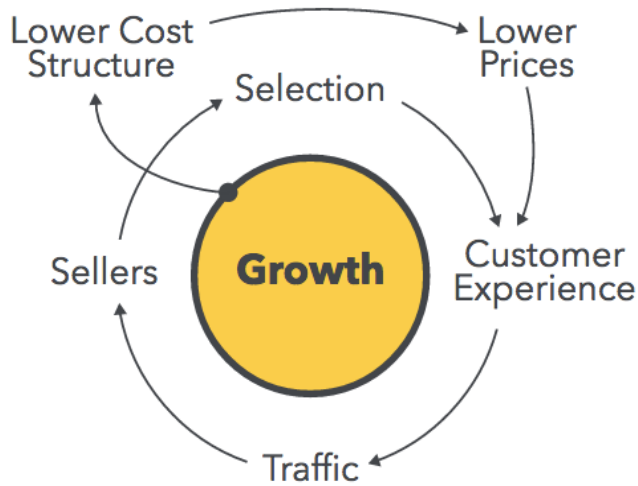


Figure 4.2. - *The Amazon Flywheel, as imagined by Jeff Bezos in early 2000s. Source: Amazon official website*

Amazon's business model shows in fact how increasing the product selection allowed the company's success.⁴⁷ **Figure 4.2** shows a schematic explanation of the so-called Amazon's Flywheel, or self-reinforcing loop.

It starts from lower prices the first priority the CEO and Founder Bezos had in mind when he first created the company. Lower prices lead, intuitively, to a better customer experience. More enthusiast customers hence visit the website more, increasing the traffic and the volume of sales.

The increased website traffic would attract more commission-paying third-party sellers. Consequently, these sellers would increase Amazon's selection and, in the end, increase the customer experience. The inner circle inevitably brings to business growth, converted by Amazon in investments to obtain a lower cost structure. As seen in the image, the lower cost structure given by the economy of scale translates in lower prices, closing the flywheel cycle. Any investment feeding any part of this closed circle should accelerate the loop of the entire system. As years went by, the company also heavily invested in logistic and distribution, focusing on fast delivery and a reliable rending service. Both actions fueled the customer experience.

Once strengthened its position on the market, Amazon also invested in new forms of investment, as Entertainment, Ambient Assisted Living, drone delivery service and many others.

⁴⁷ Brad Stone, *"The Everything Store: Jeff Bezos and the Age of Amazon"*, 2013

In January 2018, it opened in Seattle the first fully automated supermarket, Amazon Go. The smart shop has no cashiers, but instead uses artificial intelligence, electronic eyes and machine learning.⁴⁸

4.1.2. Greenfield e-commerce FDI - Intangible assets

All e-commerce businesses that sell intangible assets online are gathered in this sub-chapter: it includes profit-driven online platforms that provide services, as sharing economy and gig economy portals, online bitcoin trading, sale of informatic products through the internet and online booking service. The majority of these FDI are extracted from the Software and IT Services segment on FDI Market.

The Software and IT Services is a vast sector, which includes Marketing companies, IT Consulting, Mass Media, Social Networks, HR recruiters, as well as e-commerce companies as above defined. As understandable, the sector is fervently active: only in Europe, from January 2003 to December 2017, there have been more than 2800 different FDIs, carried out by 1388 different companies with a positive trend as showed in **Figure 4.3**. E-commerce saw an increasing presence in overall FDI, accounting in 2016 for 17.1 per cent of all foreign direct investments in the sector.

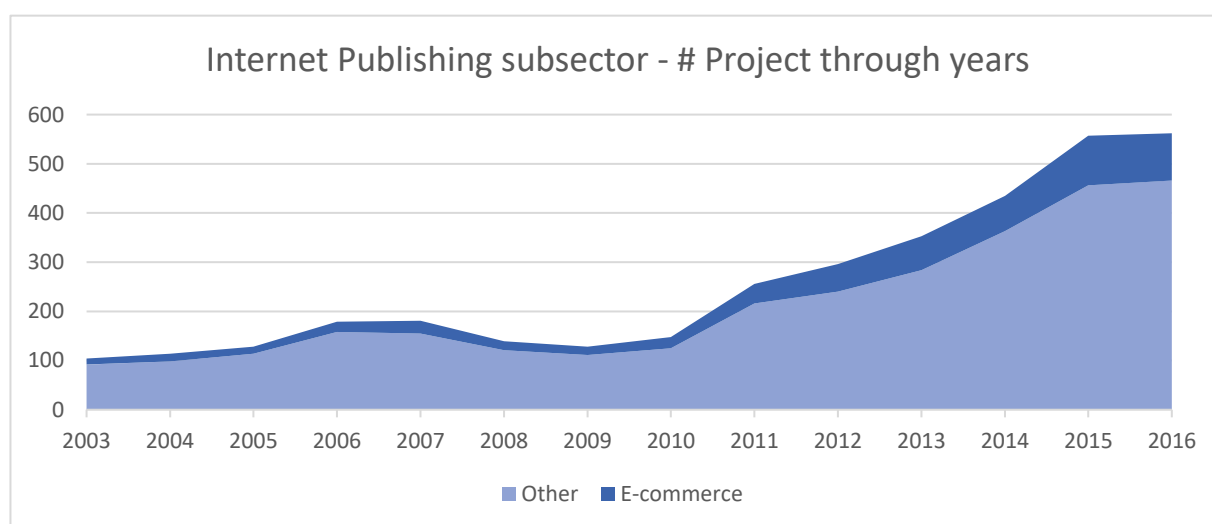


Figure 4.3. – Year over Year, e-commerce is becoming proportionally more relevant in the Internet Publishing sector. Source: FDI Markets

⁴⁸ Amazon's official website, "Amazon GO", 2018

Uber Technologies stands out in this sector with a total of 46 operations abroad. From 2012 to 2017, the company has invested a total of \$471.6 million in FDI, half of which (\$211.14 million) in territories belonging to geographical Europe. Uber, born in 2009 in the USA, offers an alternative service to the traditional taxi.

As said, many e-commerce companies rely on a virtual platform for their commercial activity, leading to a variety of services provided in a variety of competence sectors. For this reason, we gathered data also from the Hotel and Tourism sector.

H&T is particularly interesting since digital MNEs in this segment experienced a boom growth in the last decade, becoming as relevant as traditional ones (see **Figure 4.4.**).

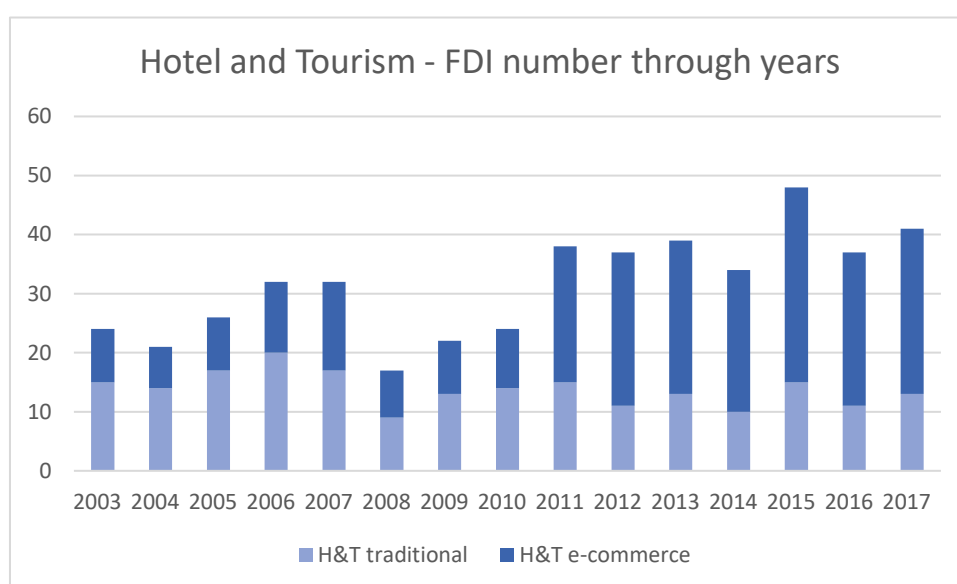


Figure 4.2. – E-commerce accounts for a large part of FDI investments in the Hotel and Tourism subsector

In 2017, 68% of all FDI in Hotel and Tourism were made by e-commerce companies. As a matter of capital expenditure, digital MNEs become even more relevant: their investments account for the 85 per cent of the nearly \$350 million invested during the year.

The success of e-companies in the H&T sector is largely due to their fare aggregators and travel fare metasearch engines that allow the customer to compare numerous hotels, filter customer requests and offer an immediate comparison of costs and positions. With online payment it is also possible to book the room or the touristic experience without travel agencies.

Booking Holdings Group is the leader of the sector with \$262.1 million in 2003-2017 period. It owns and operates several web portals, including Booking.com, Priceline.com, Rentalcars.com and many others. In 2017 the Group operated in 200 countries; and its consumers booked 673.1 million room nights, 73 million rental car days, and 6.9 million airplane tickets using its websites.

Airbnb Platform is at second place with \$166.2 million FDI in Europe in the observation period. Unlike Booking Holdings, Airbnb's a core business is facilitating the C2C commerce: in its *online marketplace* people looking for accommodation for short periods get in contact with people who have extra space to rent, usually private. The website takes a fee only if a transaction occurs.

Airbnb is part of the so-called *sharing economy*, an alternative to classic hotel trading services. This allows greater choice for the customer, less unused houses and, for the owner, a source of financial rounding.

Finally, e-commerce experienced a significant growth in the Food Industry sector, thanks to the companies specialized in home delivery. It is interesting to notice how many companies in the subsector, despite being created for food delivery, do not produce nor physically deliver it: these companies, in fact, developed mobile applications to connect the customer with a rich variety of nearby restaurants. The last-mile delivery is performed by a rider that is self-employed. Looking at the investments distribution in this sector, e-commerce companies became increasingly present year over year.

From 2013 to 2018, 44 of the 82 overall FDI in the Food Industry have been performed by e-commerce companies. However, of the \$817.13 million invested in Food Industry in the same time-lapse, MNEs account only for 11.9% of the total.

It is important to consider that digital MNEs in the sector are not direct competitor of multinational chain restaurants and catering companies that largely constitute the sector. Hence, FDI panorama remains largely occupied by traditional firms.

Moreover, the nature of their investments is radically different. Digital companies focus on providing a service, and they make light-Investments: their average Capex is \$7.97 million

and 30 jobs creates per investment, against \$29.9 million and 70 new jobs per investment of traditional brick and mortar firms. The Food Industry FDI top company is Compass Group, which invested \$205.6 million in August 2014.

All digital companies in the Food Industry sector are recent and growing fast. Just-Eat, Deliveroo and Foodora are among the digital companies with the largest capital expenditure in FDI in Europe in the observation period. They all provide an online marketplace and rely on autonomous riders for the last-mile delivery service.

However, other business models are spreading in response to this home delivery trend. Keatz Group, the first for Capital Expenditure as shown in **Tab.4.2.**, is one of them.

Parent Company	Capex [m]	# Operations
Keatz Group	\$146.5 m	3
HelloFresh	\$32.4 m	2
Just-Eat	\$12.7 m	3
Deliveroo	\$8.3 m	4
Foodora	\$4.1 m	4
Total	\$209 m	22

Keatz is a delivery-only food chain founded in 2016 in Germany; it does not have any seating area for customers like regular restaurants, but offers delivery-only food which are all prepared in local, highly automated assembly kitchens. Keatz only sells its products through delivery platforms such as Just-Eat, Deliveroo and Foodora. The company's success is driven by its fast offer of dishes designed and packaged for take away.

Table 4.2. – Keats did three large-scale operations in the observation period. Source: FDI Markets

Finally, the German start-up Hellofresh, which invested \$32.4 millions in FDI since its foundation in 2011, identified and targeted a new niche of home-delivery food: it is specialized in the home delivery of high quality ingredients - accompanied by recipes. According to the founder Dominik Richter, the company's mission is to get people to eat better food also in takeaway and home delivery sector. In April 2017 the Financial Times declared Hellofresh the most innovative and fast-growing European company for the period between 2012 and 2015: HelloFresh revenue in fact increased from 2.3 million euros in 2012 to 304 million euros in 2015, with a 409.9% Compound Annual Growth Rate.⁴⁹

⁴⁹ The Financial Times, "1000 Europe's fastest growing companies", 2017

4.2. M&A e-commerce FDI in the European market

The data about European foreign direct investments in mergers and acquisitions were collected from another external database, called Zephyr.⁵⁰

Edited by Bureau van Dijk Electronic Publishing, the database contains information on M&A, IPO, Private Equity and Venture Capital transactions worldwide. Zephyr is updated daily and offers coverage since 1997. The econometric model in **Chapter 5** includes all available data in the geographic Europe, however this chapter only analyzes FDIs after 2003, to better compare them with greenfield FDI trends. The data of Zephyr have been extracted from different sectors of interest where e-commerce company mainly operate.

Between January 2003 and December 2017, the database recorded a total of 99,536 FDI projects, 68% more than the 59,278 greenfield FDI in the same period. These projects represent a total capital investment of \$1,235.8 billion, which is an average investment of \$12.40 million per project.

Among the M&A FDI we identified those that meet the e-commerce criteria established at the beginning of **Chapter 3**. They were divided into two macro-areas according to the nature of the product they sell (tangible or intangible) or the core activity of the Parent Company.

As shown in **Figure 4.5**, the annual trend is very similar to the greenfield FDI one. The 2008 great recession is not clearly visible since its greater effects straddled between the 06-08 and 09-11 trienniums, nonetheless the recession and the following economic recovery are noticeable.

⁵⁰ Bureau van Dijk Electronic Publishing, *Zephyr database*

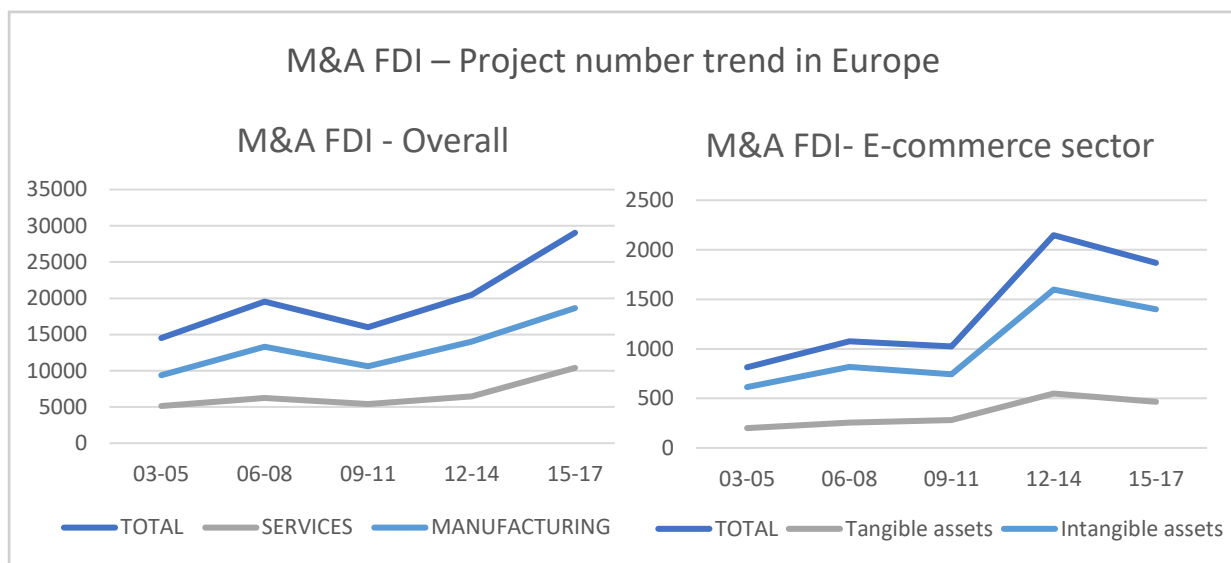


Figure 4.5 – European Greenfield FDI trend from 2003 to 2018: the graph shows the slow, but constant recovery from the world crisis of 2008. Source: data gathered and filtered from Zephyr.

In the “E-commerce” side we see a FDI number decrease in the last triennium 15-17. It is due to the redundancy of some FDI deals reported the 2012-2014 period.

For example, in 2013 Syniverse Technologies LLC acquired MACH Sarl, a Luxembourg-based company which provided cloud services. The great investment, that costed around \$630 million, required several steps before completion and therefore has been included

several times in the record of the period. The capital expenditure instead experienced a long and continuous positive trend (see **Figure 4.6.**).

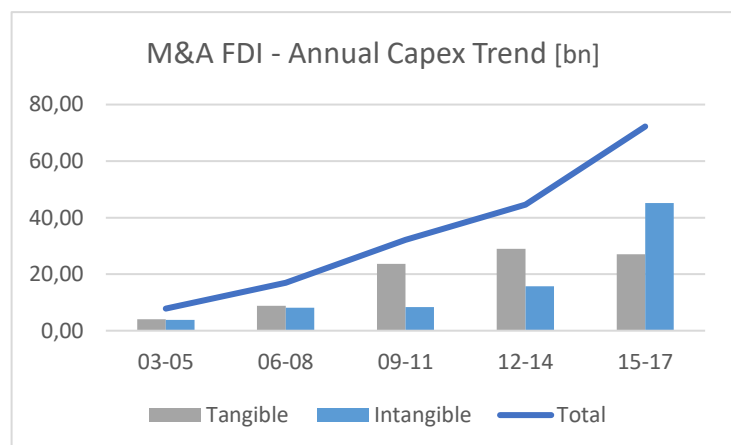


Figure 4.6. – Capital expenditure for e-commerce intangible assets grew more than the tangible ones in the observation period. Source: Zephyr database.

Destination Country Trend - Again, the top host economy is UK, with 2159 greenfield FDI in the e-commerce sector. As shown in **Figure 4.7.**, Germany is the second largest country but attracted 999 greenfield FDI, less than half of those in the UK.

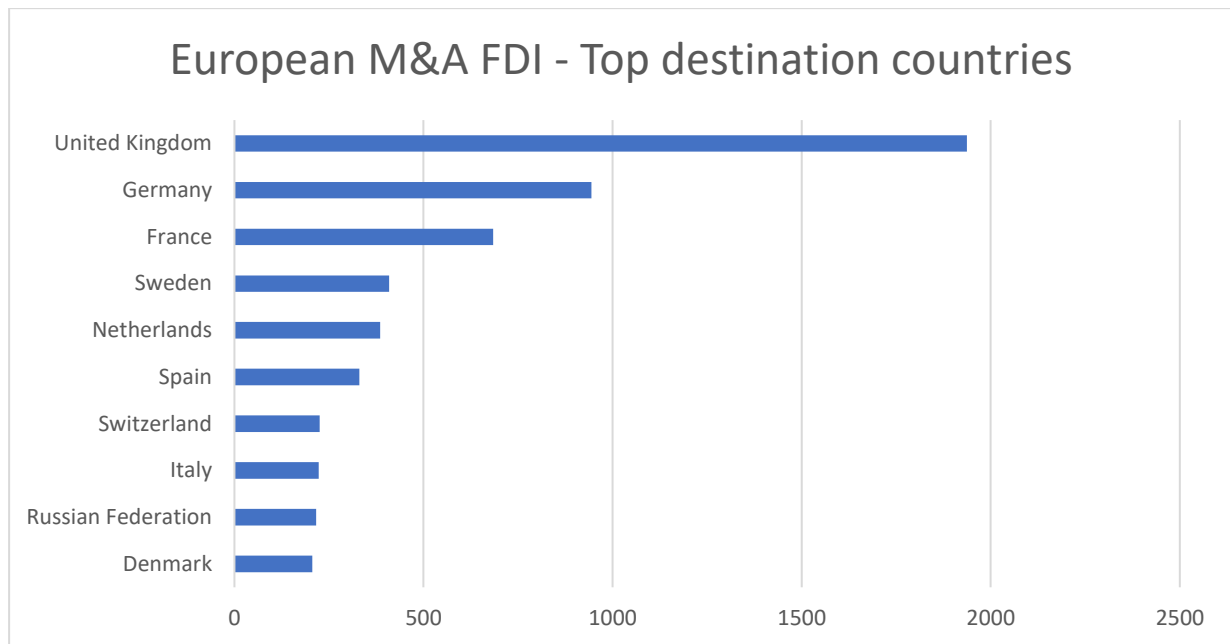


Figure 4.7. – *United Kingdom is the top host country in the period 2003-2017, followed by Germany.*

4.2.1. M&A e-commerce FDI - Tangible assets

In **Chapter 3** we analyzed greenfield M&A investments, where Amazon, that currently dominates North America and Europe, has been the leader country for both number of projects and capital expended. However its major Asiatic competitor, Alibaba, is currently expanding worldwide, including Europe: since 2014, Alibaba invested \$94.2 million in Europe, attesting as the fourth non-store retailer bigger investor in Europe.⁵¹

Alibaba is an e-commerce giant located in China; the “Amazon of the east”. In China it offers several services and influences almost every aspect of daily life: shopping, finance, chatting, healthcare, entertainment, news are some examples; its instant payment service Alipay is one of the most diffuse in the Country.

Overall, its global active users exceed those of Amazon by over a million and a half (see **Figure 4.8.**): Alibaba in fact, counts 552 million customers, versus the 310 million customer accounts that Amazon last reported in 2016.⁵²

⁵¹ Forbes, O. Smith, “[Just What Is Alibaba Up To In Europe?](#)”, June 2018

⁵² Statista – The statistic portal, “[Amazon - Statistics & Facts](#)”, 2017

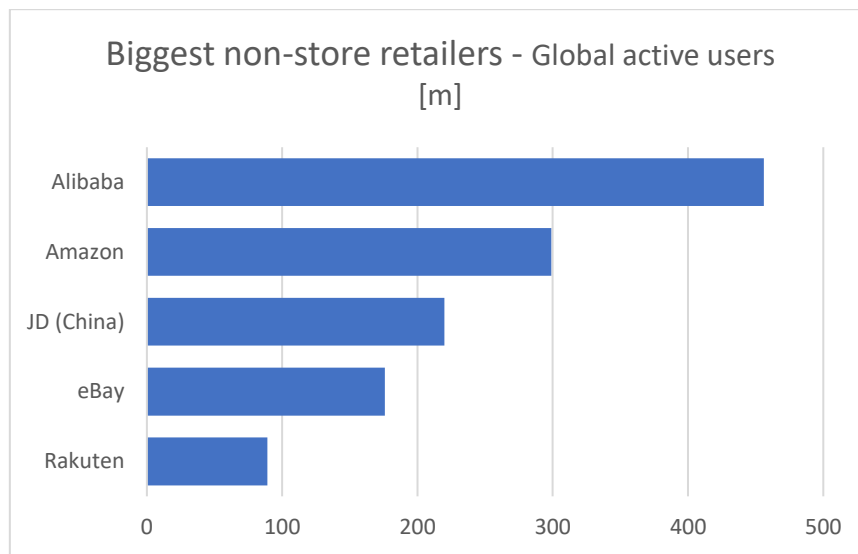


Figure 4.8. – *Alibaba is the world's leader in e-commerce. Source: FT Research.* ⁵³

Alibaba and Amazon have approached the global expansion with different strategies — Amazon invests in greenfield investments for new warehouses and infrastructure, with the ultimate objective to lower the cost and gain customers' loyalty, while Alibaba invests in M&A to get influence into subsidiaries to connect the world's e-commerce markets.

As of April 2016, Alibaba Group increased its influence in Southeast Asia buying controlling stake in the Lazada company, the major e-commerce firm of Southeast Asia.⁵⁴ Outside the US and China Alibaba has taken a minority stake in twice as many companies as Amazon.⁵⁵ The **Table 4.3.** below shows the number of minority investments performed by the two companies since 2011.

The Foreign Direct Investor in Europe Immediately behind Alibaba for M&A in the non-store retail subsector is JD.com, with a Capital Expenditure equal to about a third of Alibaba (around \$30.8 millions).

⁵³ Financial Times Research, "[Alibaba bets on do-it-yourself globalization](#)", 2017

⁵⁴ Financial Times Journal, C. Clover "[Alibaba buys controlling stake in retailer Lazada](#)", 2016

⁵⁵ CB Insights, "[Alibaba Vs. Amazon: How The E-Commerce Giants Stack Up In The Fight To Go Global](#)", March 2018

	Table 4.3. - Amazon and Alibaba: number of Foreign M&A						Total
	2011	2014	2015	2016	2017	2018 YTD (Feb. 2018)	
Amazon	1	3	5	5	2	-	16
Alibaba	-	-	5	12	14	5	36

Table 4.3. – Alibaba has made twice more M&A investments outside China than Amazon. Source: CB Insights

JD.com is the major competitor to Alibaba in B2C online retail business in China, both by transaction volume and revenue. As the first quarter of 2018, the platform has 301.8 million active users.⁵⁶

JD is also the world's high-tech and AI delivery leading company, and possesses the largest drone delivery system and the automated infrastructure with the largest capability in the world. It has recently started testing robotic and drone delivery services, as well as driverless delivery trucks.⁵⁷

As Alibaba Group, JD.com is planning to expand into Europe from 2019, as announced by JD.com's CEO, Richard Liu. However, the purpose of its expansion, and consequently the nature of its investments, is radically different from Alibaba's.

Alibaba, in fact, does not intend to compete side by side with e-commerce companies already well-established in the EU to obtain European customers. As revealed by the CEO Jack Ma in an interview of Jun 22, 2018, the priority for Alibaba across Europe is to connect more businesses and brands in Europe with consumers in China. In 2018 Alibaba started to sell its Chinese customers like the Swedish H&M and several Italian luxury labels. Alibaba's second

⁵⁶ JD.com official site, "[JD.com Announces First Quarter 2018 Results](#)", June 2018

⁵⁷ Seeking Alpha, "[JD.com Vs. Alibaba: A Comparative Study](#)", 2017

mission in Europe is to get more of its services working on the territory; not for locals, but for traveling Chinese tourists.⁵⁸

JD.com plans instead to challenge Amazon in Europe from 2019, aiming to be ubiquitous across the continent within a few years: the company is going to reinforce its position in France, then UK and Germany. JD.com press announced that it plans to spend at least €1 billion over two years to build its logistics network in France and that it will expand also in USA in the second half of 2018.⁵⁹ Mr Liu, founder and CEO of JD.com, said he is aiming for half of the company's profits to come from outside China within 10 years.⁶⁰

4.2.2. M&A e-commerce FDI - Intangible assets

Understandably, a greenfield investment demonstrates a less flexible commitment than a merger or acquisition: the greenfield investment implies the establishment of a branch abroad, more concrete than the acquisition of shares. At investment disposal, property and machinery remain in the host country.

Therefore, more transactions take place in the M&A market than in the greenfield one, and in the database related to this type of investments we have more operations, often involving the acquisition of minority stakes of a disparate number of companies.

By filtering for capital expenditure and number of transactions in the 2003-2017 period, evidences indicate that the companies that have made the largest investments are banks (excluded from the analysis). Many European companies specialized in e-commerce service providing have been acquired or acquired firms in the same market. The most relevant case is a deal for \$2.5 billion between the acquirer company Nippon T&T Corp. and the British Dimension Data Holdings Plc. The deal has been closed in 201; on the occasion the NTT Corporation declared that the global market in which they operate is changing fast due to

⁵⁸ The Forbes Journal, H. Laubscher, "[For Brands, Alibaba Is The Gateway To China And Chinese Customers](#)", June 2018

⁵⁹ Reuters, "[Exclusive: China's JD.com targets \\$2 billion fundraising at logistics unit – sources](#)", January 2018

⁶⁰ Financial Time Journal, Y. Yang, "[China's ecommerce giant JD.com to take on Amazon in Europe](#)", February 2018

rapid progress in technology innovation and disruption caused by new business models, factors that have led to clients' increasing demand for digital transformation.⁶¹

Finally, there are e-commerce companies born in recent years. Having a very rapid growth, they are also very active in terms of FDI. Unfortunately, many of them have been founded in recent years and their capital expenditure is not comparable to traditional companies. Considering the light-asset nature of their business and the explosion they had in recent years, however, they are worth mentioning.

We are talking about companies in the tourism sector and home delivery food service in Chapter 3.

In the Hotel and Tourism subsector, in 2013, Expedia Inc. acquired a majority stake of 61.6% in Trivago GmbH, investing \$538.4 million in the deal. Expedia Group is an American travel company and owns several metasearch websites. Trivago, on the other hand, is a Germany-based online information services provider that works similarly to the websites already owned by the Group.

In the food home delivery service, the most active firm has been Delivery Hero. The German company was founded in 2011, and in the triennium 12-14 has sold minority stakes for fund raising seven times. The aggregated funds were estimated around \$ 579.5 million. After that, in 2015 Delivery Hero acquired complete control over another online take-away food ordering platform operator from General Atlantic LLC, called Yemek Company. The acquisition costed \$ 589 million in cash and shares, showing how the funds have been totally reinvested in business expansion.

4.3. Conclusions on European FDI trend

We have seen the FDI trend of companies dedicated to e-commerce sector, dividing them by assets produced (either tangible or intangible), both in greenfield and in M&A market. M&A exceed greenfield FDI for 40 thousand operations – they are 99.5 thousand, against the 59,278 greenfield ones; however, the capital expenditure in greenfield account for \$ 2,188.7 billion against the 1,234 billion of merger and acquisitions.

⁶¹ Dimension Data Journal, "[*NTT takes new steps to grow its global business and drive innovation going forward*](#)", 2011

Overall, e-commerce investments have a positive trend in every subsector analyzed. The e-commerce sector is difficult to observe in its totality, since every FDI performed by digital companies is included in the sector where it operates. This is obviously consistent to analyze the characteristics of the market sector itself, and the competition among digital and traditional companies.

Furthermore, e-commerce is a relatively recent phenomenon, and it is difficult to make an objective analysis of market digitalization when the digital companies that brought most disruptive innovations in their sector are so relatively young: Uber was founded in 2009, Airbnb in 2007 and Deliveroo in 2013, and still their value combined is more than \$100 billion.

Another obstacle to the analysis of the real impact of e-commerce through FDI is their tendency to light-asset investments. Digital companies may accomplish more with lower investments of capital, as discussed, because of their nature different from traditional companies' business one.

In proportion, however, e-commerce is having an exceptional growth, thanks to the speed of modern communication technologies, Internet technologies, transport etc. They have been so successful because they are able to respond to the needs of the customer as traditional companies are not able to do.

The next decade will bring important evolution to the sector: it may continue its diffusion or it will face new competition by traditional companies. States' answer to the market digitalization will play an essential role in the future picture of global commerce. The success of many e-commerce business have been undoubtedly accelerated by the lack of ad hoc regulations for the digital market. Several countries have already begun to create new laws that respond to the modern demands of the market, as discussed in Chapter 6.

5. Econometric model

Chapter 1 and Chapter 2 introduced the concept of foreign direct investment and e-commerce. Chapters 3 and 4 showed the FDI geographical trends of the last fifteen years, trying to explain what has happened in the 43 countries studied. The countries are either Member States of the European Union or Member States of the Council of Europe.

Chapter 5, in contrast, aims to explain why we have this data. Considering historical data on FDI obtained for over 20 observation years, it therefore seeks to understand which intrinsic characteristics of countries can attract or discourage foreign investors.

To do this we identified few variables common to each country and measure their evolution from 1997 to 2017 State by State; looking for positive or negative correlations with attracted FDIs. As already widely discussed in the previous chapters, the term "e-commerce" is used too narrowly to carry out an econometric analysis.

The analyzed FDI therefore exclude online financial and banking consultancy services⁶², online marketing services⁶³ and all investments that lead to less than 10% of total ownership⁶⁴.

FDI data are gathered from FDI Markets for Greenfields and from Zephyr for mergers and acquisitions. Variables data are gathered instead from different database (World Bank Group, OCSE, World Competitiveness Online and others).

⁶² In banking and consulting investments the identification of the investment share aimed exclusively to the *online* part of the business is very difficult. These e-commerce services also require the attention of qualified personnel, leading the e-commerce innovations to be only additions to an existing service. Including these data would be misleading, since our model aims to observe the behavior of companies that rely on IT technology for their core activity

⁶³ As for the banking and finance consulting, these companies use a traditional business model, in which IT technology has only been integrated and would spoil the regression model.

⁶⁴ Every investment that guarantees an effective controlling interest in a firm is a FDI. However, in this paper we rely on the guidelines established by the Organization of Economic Co-operation and Development (OECD), and the International Monetary Fund (IMF) that fix a minimum 10% ownership stake in a foreign-based company.

We identified 11 variables that are explained in detail below. To run the econometric model, we used the STATA program,⁶⁵ a statistics and data science software, version 14.2.

Within the e-commerce sector, we analyzed the correlation among variables and total FDIs, among variables and M&A versus Greenfield FDI, Goods versus Services as good sold and, finally, the correlation among variables and countries with high and low GDP per capita.

5.1. The independent variables

Once the FDI number for each country is known, it is necessary to identify the variables that influence most the choice of foreign investors. We identified 11 variables to better explain the FDI trend. For each of them, the historical values for the 20 reference years have been found and included in the regression model. These data cover many aspects, from economy to legislation, geography and demography, to better describe the host country.

Where not specified, data are gathered from the World Bank Group, an international financial institution that provides loans to countries of the world for capital projects.⁶⁶

In order to analyze the welfare state of the hosting economy we used the **real GDP**. GDP is the monetary value of all the finished goods and services produced within a country's borders in a specific time period.⁶⁷ In this case, we use the real GDP instead of the nominal one. The main difference between nominal and real values is that real values are adjusted for inflation, while nominal values are not. As a result, nominal GDP will often appear higher than real GDP. Every variable's correlation with FDI may be positive or negative. It is intuitive that, the greater the GDP, the greater the number of FDIs attracted. In a broad sense, the GDP reveals the well-being of a country, the strength of its economic system and its political stability.

As any other variable, GDP alone is not enough to totally explain the FDI trend; therefore, the correlation may be present, but not absolute (i.e. close to 1.0).

⁶⁵ Stata Statistics and Data Science, [Official Site](#)

⁶⁶ The World Bank, [Official Site](#)

⁶⁷ The Economic Times "[Definition of Gross Domestic Product](#)", 2014

To describe the market that an MNE aims to address by entering a country, we use several variables. They all express similar, although distinct aspects of the host country. For this reason, they should be kept separated in the model to avoid overlaps.

The first variable is the **GDP per capita at Purchasing Power Parity**, to describe a country's living standards. GDP per capita is the ratio between Real GDP and overall population, measuring the amount of money that each individual gets in that particular country.

The GDP per capita provides a better determination of living standards as compared to Real GDP; however, it may not be sufficient: GDP per capita still fails to express the real purchasing power of the local population. Therefore, we introduced the GDP per capita at Purchasing Power Parity. The PPP is an exchange rate at which the currency of one country is converted into that of the second country in order to purchase the same volume of goods and services. The GDP per capita PPP is therefore more useful when comparing differences in living standards between nations.

We expect GDP per capita PPP to have a positive correlation, especially considering the potential penetration of local market by a foreign investor: as the variable suggests, wealthy people have more resources and are more inclined to purchase goods and services.

We then proceeded to include **Population** and **Internet Users** for market size estimation.

A company evaluating the entry into a foreign market must consider the number of potential new customers. MNEs recover the fixed costs of their foreign settlements depending on the local market size, that therefore is another important determinant of foreign direct investment. Population has a positive correlation, considering both more possible customers or possible employees.

Internet users, instead, expresses the percentage of the total population that may have access to internet and therefore has a positive contribution to the model. The source is the International Data Corporation.⁶⁸ In high-welfare countries it reaches peaks that are around 98%, with an average of 88.2%. Instead, the mean in countries with low GDP per capita is 70.6%.

⁶⁸ International Data Corporation Media Center, [Official Website](#)

A foreign company must also consider the labor market of the host country. The first variable introduced is the **Unemployment Rate**, i.e. the share of the labor force that is jobless, expressed as a percentage. We use this parameter instead of the labor force because the latter may fail to identify an economy that is very close to or at full capacity. A non-zero unemployment level reveals to the potential investor that would have bargaining power in labor market when settling in the host country, filling vacant positions in a brief time, without raising salaries. On the other hand, unemployment cannot be too high either: it would show another inefficient economy, only in the opposite direction.

The question remains concerning what is the optimum level of unemployment that a government must try to obtain. There is no straightforward answer that can be applied to all economies, since there are a multitude of variables that play a part in the unemployment rate. According to literature, values around 5% are considered natural, while shares around 10% are not seen as positive. When unemployment exceeds 20%, it is usually a sign of economic depression.⁶⁹

In the labor market variables, we also include the **Unit Labor Cost**. This parameter is often viewed as a broad measure of international price competitiveness. Unit labor costs are defined as the average cost of labor per unit of output produced. They can be expressed as the ratio of total labor compensation per hour worked to labor productivity (i.e. output per hour worked).⁷⁰ Considering the same output produced, the lower the cost to obtain it, the greater the utility for the company. Therefore, we expect a variable with a negative correlation. Data since 2000 are gathered from Eurostat.⁷¹

Also, the external efficiency of the education system and FDI inflows are in a certain measure related: foreign investors may be attracted by the quality and the relevance of the expertise developed by the labor force in a given country.

As e-commerce comprehends many subsectors, it is difficult to identify activities, and therefore characteristics, that may make the difference in the eyes of a foreign investor.

⁶⁹ The Balance Journal, K. Amadeo, "[Recession Versus Depression and How to Tell the Difference](#)", December 2018

⁷⁰ Institute of Labor Economics, J. Ordóñez, H. Sala, J. Silva, "[Real Unit Labour Costs in Eurozone Countries: Drivers and Clusters](#)", 2014

⁷¹ Eurostat, [Labor Market – main tables](#)

In this model we decided to at least consider higher education in the **Advanced Education Rate** variable. The variable is expressed as a percentage of the population, and data are gathered from Eurostat. Since countries where adequate trained labor force is available may attract investors, we expect a positive correlation coefficient for the advanced education rate.

Obviously, a multinational investor also relates to the government of the host country. Today is commonly accepted, and supported by many evidences, that tax regimes influence the number and location of FDI.⁷² We hence have included the variable **Corporate Tax Rate**, expressed as the maximum tax rate, calculated on profit before tax.

We also included **Tax Wedge**, defined as the ratio between the amount of taxes paid by an average single worker at average earnings and the corresponding total labor cost for the employer. The average tax wedge measures the extent to which tax on labor income discourages employment. This indicator is measured in percentage of labor cost and is gathered from Eurostat.

For both variables, we expect negative correlation.

The foreign investor also relates with the bureaucracy system of the host country. The variable is commonly accepted in literature as an influencer of FDI choices. The **Bureaucracy** variable was gathered from the database of Doing Business, an organization subordinated to WBG database. Bureaucracy is expressed by a distance-to-frontier score, that captures the gap between an economy's performance and a measure of best practice across the entire sample of Country for every component that constitutes the variable. In our case, Bureaucracy it is the union of time, number of required procedures and costs to start a business.⁷³ High bureaucracy may not discourage an investment, but it certainly makes it less attractive. Therefore, the correlation coefficient expected is negative.

Finally, we consider **Railroads**, a variable that expresses the density of the network in kilometers per square km. it comprehends road, air and rail transports. The index gives an aggregate qualitative evaluation of means of transport within the country, and also of

⁷² Institute of Developing Economies, W. Yuiki, "[Tax differentials and inflow of foreign direct investments](#)", 2010

⁷³ Doing Business, "[Distance to Frontier and Ease of Doing Business Ranking](#)", 2017

communication lines with neighboring countries. Therefore, it indirectly includes, to some extent, the geographical position of the State with respect to other countries, expressed as the ease of trading with them.

We expect this variable to have a large and positive impact, especially for tangible assets.

5.2. The Negative Binomial Regression

The identification of explanatory variables is not sufficient: we must also identify the correct regression to use in the model.

The dependent variable, FDI number, is a *count* variable, i.e. it presents only non-negative integer values. The choice therefore falls on a model designed for count variable, either a Poisson regression or a Negative Binomial one.

One of the strongest assumptions of a Poisson is that the mean of the count variable is equal to its variance. However, this is not the case:

. tabstat overall , stats(mean v n)			
variable	mean	variance	N
overall	29.98339	4701.63	301

. tabstat greenfield , stats(mean v n)			
variable	mean	variance	N
greenfield	4.427907	136.76	215

. tabstat ma , stats(mean v n)			
variable	mean	variance	N
ma	26.8206	3673.641	301

Figure 5.1. - This image shows the mean and the variance for all the dependent variables. In each case, the variance is much higher than the mean: we have an over-dispersion

In this model, the variation is greater than that of a true Poisson. This extra variation is referred to as over-dispersion, and the Negative Binomial Regression is therefore the most appropriate.

To read and interpret the results of the analysis, it is necessary to know the mathematical meaning of the various values that the negative binomial regression returns as output.

Every negative binomial regression's output begins with the iteration log. The iteration uses maximum likelihood estimate to tests the fit of a Poisson model, a null model (intercept only model) and, finally, the nbreg log likelihood, which can be used to compare models.

Negative binomial regression	Number of obs	= 0
	LR chi2(2)	= 0.00
Dispersion = mean	Prob > chi2	= 0.0000
Log likelihood = 0.00	Pseudo R2	= 0.0000

Figure 5.2. – Header information of a generic STATA nbreg output

The header information is presented above. Log-likelihood is displayed again on the left side; on the right-hand side we find the number of observations used in the analysis is given, along with the Wald chi-square statistic with three degrees of freedom for the full model, followed by the p-value for the chi-square. This is a test that *all* of the estimated coefficients are equal to zero—a test of the model as a whole. If this value is close to zero, the model is statistically significant. The header also includes a McFadden's pseudo R-squared.

Its value is varying in a range from 0 to 1, and it is calculated as:

$$R_{McFadden}^2 = 1 - \frac{\log(L_c)}{\log(L_{null})}$$

where L_c denotes the (maximized) likelihood value from the current fitted model, and L_{null} denotes the corresponding value but for the null model - the model with only an intercept and no covariates. The log likelihood value is always negative (because the likelihood contribution from each observation is a probability between 0 and 1). If the model does not predict the outcome better than the null model, McFadden's R squared is close to 0. Conversely, a larger Pseudo-R2 means that the model has predictive value.

overall	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
pppgdpperpercapita	.0000000	.0000000	0.00	0.000	.000000	.000000
population	.0000000	.0000000	0.00	0.000	.000000	.000000
_cons	.0000000	.0000000	0.00	0.000	.000000	.000000
/lnalpha	.0000000	.0000000			.0000000	.0000000
alpha	0.000000	.0000000			0.000000	0.000000
LR test of alpha=0: <code>chibar2(01) = 0.000</code>				Prob >= <code>chibar2</code> = 0.000		

Figure 5.3. – *Negative Binomial Regression coefficient for a generic STATA nbreg output*

Below the header there are the negative binomial regression coefficients for each of the variables, along with standard errors, z-scores, p-values and 95% confidence intervals for the coefficients.

The coefficient expresses the sign and intensity of the correlation of each specific variable to final output. It therefore may assume values in a range from -1 to +1.

Z-scores and $P>|z|$ are respectively the test statistic and p-value that the null hypothesis that an individual predictor's regression coefficient is zero, given that the rest of the predictors are in the model. Z-scores follow a normal distribution as shown in **Figure 5.3**.

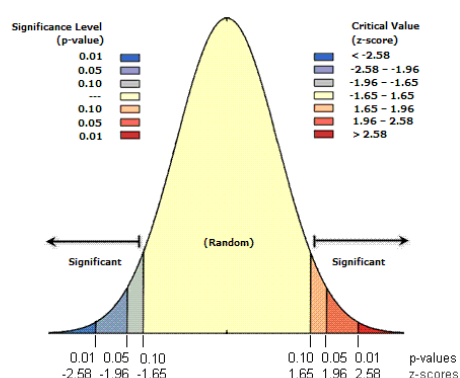


Figure 5.4. – *Significance areas can be found in the tails of the normal distribution*

Since the p-value is the probability that the observed spatial pattern was created by some random process, a small value means that it is very unlikely that the observed spatial pattern is the result of random processes, and the null hypothesis can be rejected. The larger the p-value accepted, the smaller the Confidence Interval: a p-value <0.10 shows a confidence level of 90%; it becomes 95% for p-values <0.05 and 99% for p-values <0.01.

We rely on a 95% confidence level, considering acceptable only p-values lower than 0.05.

Finally, α is the over-dispersion parameter. The larger α is, the greater the over-dispersion. The Poisson model corresponds to $\alpha = 0$. The Negative Binomial Regression parameterizes α as $\ln \alpha$ and tests the possibility of $\alpha = 0$. If the likelihood-ratio test is virtually zero, the data are not Poisson distributed.

In the model we should avoid including too many variables, and that these should be disconnected from each other. Having too many parameters compared to observations may lead, in fact, to overfitting.

In statistics, overfitting is the production of an analysis that corresponds too closely or exactly to a particular set of data, and may therefore fail to explain the observation reliably; an overfitted model is a statistical model that contains more parameters than those that can be justified by the data. With overfitting we unknowingly extract some of the residual variation (i.e. the noise) as if that variation represented underlying model structure.

The Akaike Information Criterion (AIC) is an estimator of the relative quality of statistical models for a given set of data: given a collection of models for the data, AIC estimates the quality of each model, relative to each of the other models. It accounts for both the number of variables and the number of observations in your dataset and we use it we use when we have two or more models possible.

Given a statistical model, let k be the number of estimated parameters in the model, and L be the maximum value of the log-likelihood function for the model. Then the AIC value of the model is:

$$AIC = 2k - 2L$$

Given a set of candidate models for the data, the preferred model is the one with the minimum AIC value.

Analysis 1: Overall foreign direct investments

The first analysis was made trying to include all the foreign direct investments and to understand, in a preliminary way, how the independent variables interact to explain the FDI phenomenon.

European FDI - Overall investments analysis

Negative binomial regression			Number of obs	=	126	
			LR chi2(7)	=	223.51	
Dispersion = mean			Prob > chi2	=	0.0000	
Log likelihood = -517.62733			Pseudo R2	=	0.1776	
overall	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
pppgdppercapita	.0000141	.0000486	2.53	0.011	.000025	3.16e-06
population	1.43e-08	6.20e-09	2.30	0.021	2.11e-09	2.64e-08
internetusers	.0131504	.0048024	2.74	0.006	.0037378	.022563
advedratep	.0451957	.0106326	4.25	0.000	.0243563	.0660352
laborwedgei	-.0344855	.0110926	-3.11	0.002	-.0562267	-.0127444
corporatetaxprofit	.0187505	.0076521	2.45	0.014	.0037527	.0337483
railroads	1.127278	.2136899	5.28	0.000	.7084536	1.546103
_cons	-2.505278	.6028052	-3.56	0.000	-3.882751	-1.127806
/lnalpha	-1.32616	.1565174			-1.632928	-1.019391
alpha	.2654949	.0415546			.1953567	.3608146

LR test of alpha=0: chibar2(01) = 846.20Prob >= chibar2 = 0.000

LR test of alpha=0: **chibar2(01) = 846.20**

Prob >= chibar2 = 0.000

After several iterations, the model that best describes the phenomenon includes 8 variables, taken from different subject fields to avoid overfitting.

The Pseudo R2 of the model stands at 0.1776. As mentioned, the first analysis includes all investments: whatever their nature (hence, both M&A and Greenfield), the products sold (tangible and intangible) and for all countries (high and low income). Therefore, it is not surprising that different economic variables tested on STATA does not give statistically relevant results. Real GDP and GDP per capita PPP had both low p-value, and are therefore connected to the FDI outcome, but they both have negligible impact on the model. As shown in the figure, GDP per capita PPP has in fact a coefficient, albeit positive, very low, probably leveled by the great heterogeneity of countries included in the analysis.

Also Population has very little relevance in the model; UK was the top host country in the period considered, is and its population is considerably less than of Russia. The latter country however has received 10 times less FDI. On the other hand, countries with high GDP per capita like Monaco and Luxembourg, received very few investments probably because of their limited population.

This analysis allows us to observe other maxi trends that differentiate countries: variables that do not consider the number of actual population, but rather their percentage, have instead a greater relevance. It is the case of Internet users% and Advanced Education Rate%.

Labor wedge has understandably a negative correlation coefficient, while Railroads has a positive correlation and a high coefficient. The condition of major transport connections, such as motorways, railways, ports, and airports, combined with the geographical position, have a major impact on investments.

Analysis 1.2. – Separation of M&A e Greenfield FDI

By separating M&A FDI from Greenfield to see how the independent variables work in the separate scenarios, we have these two regressions:

European FDI - M&A and Greenfield compared

Greenfield

Negative binomial regression		Number of obs		=	129
Dispersion = mean		LR chi2(6)		=	138.53
Log likelihood = -297.56826		Prob > chi2		=	0.0000
		Pseudo R2		=	0.1888
greenfield	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
internetusers	.0209135	.0113368	1.84	0.065	-.0013063 .0431333
advedratep	.0307871	.0145149	2.12	0.034	.0023385 .0592357
ulci	-.0144138	.0088876	-1.62	0.105	-.0318331 .0030056
corporatetaxprofit	-.008474	.008197	-1.03	0.301	-.0245397 .0075917
bureaucracy	.0281109	.0139471	2.02	0.044	.0007751 .0554467
railroads	.1397677	.2781029	0.50	0.615	-.405304 .6848395
_cons	-1.546914	1.437618	-1.08	0.282	-4.364593 1.270766
/lnalpha	-.7495598	.2161652			-1.173236 -.3258837
alpha	.4725745	.1021542			.3093643 .7218891
LR test of alpha=0: chibar2(01) = 173.94		Prob >= chibar2 = 0.000			

M&A

Negative binomial regression		Number of obs		=	126
Dispersion = mean		LR chi2(7)		=	214.31
Log likelihood = -505.08259		Prob > chi2		=	0.0000
		Pseudo R2		=	0.1750
ma	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
internetusers	.0149293	.0049832	3.00	0.003	.0051625 .0246961
advedratep	.0467031	.0110501	4.23	0.000	.0250453 .0683609
population	2.63e-08	2.64e-09	9.96	0.000	2.11e-08 3.15e-08
laborwedgel	-.0297329	.0113549	-2.62	0.009	-.051988 -.0074778
corporatetaxprofit	.020993	.0075855	2.77	0.006	.0061258 .0358603
railroads	1.400686	.2130053	6.58	0.000	.9832036 1.818169
_cons	-4.104107	.5994729	-6.85	0.000	-5.279053 -2.929162
/lnalpha	-1.272372	.1597511			-1.585478 -.9592651
alpha	.2801664	.0447569			.2048499 .3831744
LR test of alpha=0: chibar2(01) = 879.46 Prob >= chibar2 = 0.000					

As mentioned, M&A and Greenfield FDI have common characteristics, but they are not identical. Among the parameters relevant to both, we find Internet Users and Advanced Education Rate. Population is positive for both but does not have a high correlation coefficient. While the model that better explains Greenfields take labor costs into consideration, M&A

foreign direct investments trend are better described by Labor Wedge, that slightly penalizes them.

The different behavior of Corporate Tax is interesting: in Greenfield it is negative, but in M&A it is positive. Since it represents the maximum tax rate on profit, it is counterintuitive to think that it can have a positive coefficient. However, despite the payment itself is not positive, it often represents more services. Among the countries with the highest corporate tax in the years of observation 2015-2017, we find developed countries such as Belgium, France, Austria and Italy. It is therefore possible that the Corporate Tax will have a positive effect if taxes are reinvested in services for company and workers, side effects that the variable per se cannot identify.

Overall, GF and M&A show affinities between themselves and with overall investments. However, their differences could be better explained by the next analysis, which compares high and low-income countries: as previously mentioned, M&A are concentrated in countries with high economic performance with a higher percentage of incidence. For this reason, one could suppose that the distribution of the parameters is in some way connected to that of the next observation.

Analisi 2: Paesi ad alto e basso reddito

Countries have different and peculiar characteristics, but among countries with similar levels of well-being, common characteristics can be found. For example, in countries with high GDP per capita, the digitization rate of the population is much higher than in those with low GDP. On the other hand, the Labor Wedge is on usually higher.

To observe the drivers of choice even between a high-GDP country and the other (and vice versa between a low-GDP country and the other), we carried out this analysis by dividing the countries into two groups of equal size in descending order of GDP per capita. We have used GDP per capita to give us an idea of the real well-being of the country, avoiding the possibility of being distorted by the size of the country and its Population.

In the table an extract of the results:

European FDI - Low and High Income countries

High Income countries

Negative binomial regression		Number of obs	=	92
LR chi2(7)		=	136.25	
Dispersion = mean		Prob > chi2	=	0.0000
Log likelihood = -429.77564		Pseudo R2	=	0.1368

overall	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
population	.0000271	.0000178	1.52	0.129	-7.84e-06 .000062
internetusers	.0051962	.0080359	0.65	0.518	-.0105539 .0209462
unemployratelaborforce	.0929862	.0282872	1.29	0.001	.0375442 .1484281
advedratep	.0406512	.0133406	3.05	0.002	.0145042 .0667982
laborwedget	-.0706193	.0169724	-4.16	0.000	-.1038846 -.037354
corporatetaxprofit	.0331247	.0111288	0.98	0.003	.0113127 .0549368
railroads	2.697948	.269695	10.00	0.000	2.169356 3.226541
_cons	-2.813063	1.112482	-2.53	0.011	-4.993488 -.6326384
/lnalpha	-1.390689	.1683264			-1.720603 -1.060776
alpha	.2489037	.0418971			.1789582 .3461872

LR test of alpha=0: **chibar2(01) = 865.99** Prob >= chibar2 = 0.000

Low Income countries

Negative binomial regression		Number of obs	=	48
LR chi2(6)		=	52.07	
Dispersion = mean		Prob > chi2	=	0.0000
Log likelihood = -135.13369		Pseudo R2	=	0.1615

overall	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
realgdp	1.69e-12	1.58e-12	1.08	0.282	-1.39e-12 4.78e-12
population	1.83e-08	2.70e-09	6.79	0.000	1.30e-08 2.36e-08
internetusers	.0318216	.0033227	9.58	0.000	.0253091 .038334
unemployratelaborforce	-.0335148	.0193758	-1.73	0.084	-.0714907 .004461
ulci	.0020846	.009541	0.22	0.827	-.0166154 .0207846
laborwedget	.0113998	.0202061	0.56	0.573	-.0282034 .051003
bureaucracy	.028583	.0104277	2.74	0.006	.008145 .049021
_cons	-1.606727	1.397312	-1.15	0.250	-4.345408 1.131954
/lnalpha	-1.945459	.3869214			-2.703811 -1.187107
alpha	.1429216	.0552994			.0669499 .3051027

LR test of alpha=0: **chibar2(01) = 23.43** Prob >= chibar2 = 0.000

As for high-income countries, as assumed in the previous analysis, there are affinities between this regression and that for M&A in the parameters identified as more relevant. A significant difference, however, is the Population variable, that has acquired statistical significance in high-income countries while Internet users% have lost it. Our interpretation is that all rich countries have good performances in this field of low-income countries, and they have it since much more time than low income countries (see **Figure 5.5.**).

Therefore, the percentage of the population that has access to an internet connection is no longer a choosing criteria for companies when it comes to high income countries.

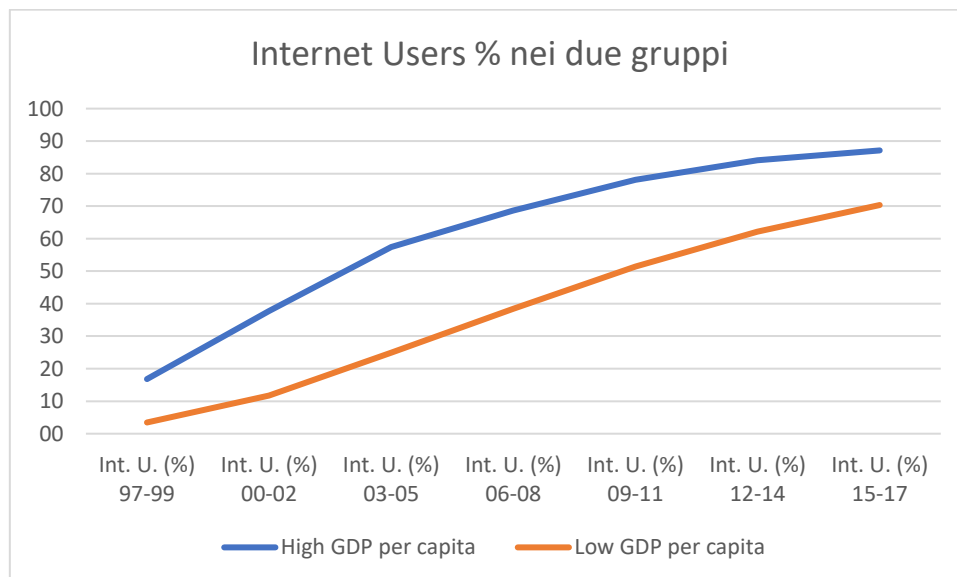


Figure 5.5. – Internet Users curve for both low and high income countries as showed in the database

Comprehensibly, Population has a significant relevance when comparing two high income countries: for example, Gibraltar, Liechtenstein and Munich are advanced economies, but nevertheless they do not receive many investments. The cause of this is probably their small size, well identified by the Population variable.

When it comes to choosing between two low-income countries, GDP is clearly an irrelevant variable, as it is Population. Internet Users % is a rather good indicator of the degree of digitization of the population, and in this case it acquires statistic relevance. As said, Internet accessibility is not obvious in every country; therefore, this variable acquires value as a factor considered for FDIs among low-income countries.

Unemployment Rate has a negative value coefficient: therefore, as the Unemployment Rate increases, FDIs decrease. As already specified, the value of Unemployment Rate should be low, but not tending to zero; the ideal unemployment rate value should be around 5%. Higher values, however, denote criticalities in the economic system of the country and should be intended as negative. In low-income countries, however, the average unemployment rate for these countries, obtained by data gathered from the World Bank Group, is 10.91 per cent. The negative sign in the correlation index is therefore understandable.

Furthermore, the p-value referred to the individual variables is very high. It often extends outside the statistical significance range explained in subchapter 5.3. From a logical point of view, the fact that variables have little statistical value makes sense, partly because of the few countries available and partly because many factors that drive choices between rich countries or overall countries are not relevant here. The criteria for choosing between a poor country and another are therefore different from the traditional ones; an investment in a poor country is often dictated by industry needs that are not captured by this generic model.

Analysis 3: Tangible vs Intangible Assets

Finally, one of the biggest differences between e-commerce businesses is the nature of the product sold, which can be tangible or intangible.

The main difference is that tangible goods must be shipped; therefore, it is necessary to manage these products in the warehouse and to transport them. It is very different from intangible assets, either virtual products or services, which can be downloaded after an online payment. In this case, logistics is not a determining factor. Even the labor and the workforce

required to manage a physical flow of materials is greater than that required by a company that specializes in services:

European FDI - Tangible and Intangible goods

Tangible goods

Negative binomial regression
Dispersion = **mean**
Log likelihood = **-371.75515**

Number of obs = **125**
LR chi2(8) = **173.03**
Prob > chi2 = **0.0000**
Pseudo R2 = **0.1888**

overall	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
realgdp	8.34e-13	8.89e-14	9.38	0.000	6.59e-13 1.01e-12
population	3.07e-08	3.31e-09	9.25	0.000	2.42e-08 3.72e-08
internetusers	.026463	.0063879	4.14	0.000	.013943 .038983
advedratep	.0229666	.0139065	1.65	0.099	-.0042896 .0502228
laborwedg	-.0394521	.0139244	-2.83	0.005	-.0667433 -.0121608
bureaucracy	.0160969	.0121268	1.33	0.184	-.0076712 .039865
railroads	1.129543	.2938325	3.84	0.000	.5536423 1.705445
_cons	-5.845894	1.073109	-5.45	0.000	-7.949149 -3.742639
/lnalpha	-1.093558	.1946157			-1.474998 -.7121184
alpha	.3350223	.0652006			.2287792 .4906038

LR test of alpha=0: **chibar2(01) = 251.45**

Prob >= chibar2 = 0.000

Intangible Goods

Negative binomial regression
Dispersion = **mean**
Log likelihood = **-344.69429**

Number of obs = **86**
LR chi2(9) = **166.02**
Prob > chi2 = **0.0000**
Pseudo R2 = **0.1941**

overall	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
pppgdp	.0000149	7.16e-06	2.08	0.038	8.40e-07 .0000289
population	3.76e-08	2.13e-09	17.65	0.000	3.35e-08 4.18e-08
internetusers	.4299964	.092919	4.63	0.000	.2478784 .6121143
advedratep	.0991612	.0145627	6.81	0.000	.0706188 .1277037
ulci	-.0105154	.0071797	-1.46	0.143	-.0245874 .0035565
corporateprofit	-.0163804	.0046953	-3.49	0.000	-.0255831 -.0071778
bureaucracy	-.0373719	.0101024	-3.70	0.000	-.0571723 -.0175715
railroads	.1596995	.1383494	1.15	0.248	-.1114603 .4308593
_cons	-.9780696	.9352977	-1.05	0.296	-2.811219 .8550803
/lnalpha	-1.637454	.2006333			-2.030688 -1.24422
alpha	.1944745	.0390181			.1312451 .2881655

LR test of alpha=0: **chibar2(01) = 500.74**

Prob >= chibar2 = 0.000

As imaginable, Railroads gains particular importance for the Tangibles assets. It remains present in the Intangibles, but with an impact certainly lower. Indeed, it is recalled that the values were obtained bearing in mind also the geographical position of the countries.

5.3. Comparison of model results with country-specific data from database

The model suggests that Internet Users, Railroads, Advanced Education, Labor Wedge and Corporate Tax Rate could be the most influent in terms of correlation coefficient and p-value in almost all analyses.

To verify the goodness of the model, we select specific countries to verify if data present in the database are in line with our interpretation of the negative binomial regression.

The first country analyzed is UK, the European top hosting country, that with 563 investments attracted in the last three years ranks first also for the triennium 15-17.

Interesting data are immediately noticeable: despite the primacy of FDI attracted, UK is only 17th per GDP per capita, a sign that this variable is not essential. In contrast, Internet Users% is at 93.4%, compared to an average of high-income countries of 87.2%. This is a positive result that does not contradict the model's conclusions. Even the Advanced Education Rate is above the average of high-income countries (the English Advanced Education Rate is 45.2%

compared to an average of 37.5%) and Labor Wedge and Corporate Tax, which tend to have a negative coefficient, are both lower; Bureaucracy, instead, higher than average, is underperforming:

FDI		#	GDP per capita		#	Internet U.		Avg.	Unemploy. Rate		Adv. Education	Average	
563		1	42,030		17	93.4%		87.2%	5.06		45.2%	37.5%	
Labor Wedge		Average	ULCI		Average	Corporate Tax		Average	Bureaucracy		Average	Railroads	Rank
30.88		39.68	105.80		107.16	31.20		37.26	94.58		90.44	4.21	5

Figure 5.6. – *United Kingdom, data gathered from database*

From the image we can also notice an Unemployment Rate at 5.06%, value identified as close to ideal and symbol of a stable economic system, certainly one of the strong points of the country. Although the roads are of excellent quality, the country is penalized since it is an island, obtaining only a fifth place in the Railroads ranking among high-income countries.

The attractiveness of England is however also driven by the spoken language, English, which makes it the perfect container for investments from other English-speaking countries.

Country	#Deals	Rank	GDP per capita	Rank	Population	Rank	Internet Users	Unemployment
Liechtenstein	2	22	169,146	1	37664	21	97.3%	2.5%
Monaco	5	21	166,871	2	38500	20	94.3%	6.3%

Figure 5.7. – *Liechtenstein and Gibraltar, data gathered from database*

The data also conform the conclusions for Liechtenstein and Monaco, which are respectively last and penultimate in the ranking among high-income countries for attracted FDI. The two countries are, however, first and second for GDP per capita, way above the average with Internet Users percentages and they both have encouraging Unemployment Rates. While unfortunately other data have not been found due to lack of information on WBR, data available suggest that the only disadvantage of the two countries is precisely the population, as they rank 20th and 21st in a classification to a total of 22 countries.

5.4. Italian FDI Attractiveness

As shown in the previous subchapters, Internet Users, Railroads, Advanced Education, Labor Wedge and Corporate Tax Rate has been the most cited and the most influent in terms of correlation coefficient and p-value in almost all analyses.

Italy's perception abroad reflects the importance of the variables identified.

In 2017, Italy has risen to 13th from 16th place in global attractiveness rankings for foreign direct investment, based on an index compiled by consultancy firm A.T. Kearney.⁷⁴

This strong gain came despite mixed macroeconomic indicators and political volatility after the country's December 2016 referendum. The economy grew by a sluggish 0.9 percent in 2016⁷⁵ and by 1.4 percent in 2017⁷⁶ respectively.

Italian government gave a strong push to attract foreign investment in 2015 and 2016. The A.T. Kearney firms identifies a positive effect in reforms that streamlined some labor-law processes, and reduced the minimum capital requirement and the registration procedures to start a business in the Country.

In early 2017, investments by US private equity firms increased in high-tech companies, capitalizing on the fact that Italy largely lacks a private equity market.

However, the results do not seem to be destined to last. The EU Commission has revised downwards the Italian GDP estimates for the next years: for 2018 they are limited to 1.3% and in 2019 to 1.1%.⁷⁷

The Commission noted that downside risks on growth prospects have become more prominent in the face of a renewed uncertainty of policies at global and domestic level of recent months. These data are negative, but in trend with the EU and the Eurozone, that, according to previsions, will continue to expand this year and in 2019 but at a more moderate pace compared to 2017.

To better understand a potential investor's perception of Italy, we rely on a survey done by Ernst & Young. Managers' responses to the perception survey helped to understand Italy's strengths and weaknesses.

Italy is well perceived for the level of its local labor skills and social stability: although some gaps are widening in terms of personal wealth and economics, especially between the North

⁷⁴ Il Sole 24 Ore, "[Italy rises to 13th place in global FDI attractiveness rankings](#)", 2017

⁷⁵ Il Sole 24 Ore, "[Istat, Pil +0,9% nel 2016 \(+0,2% nel quarto trimestre\): miglior dato da 6 anni](#)", 2016

⁷⁶ Il Sole 24 Ore, "[Istat: crescita Pil 2017 a +1,4%: è la più alta da 7 anni](#)", 2017

⁷⁷ La Repubblica.it, Economy and Finance section, "[L'Istat rivede al ribasso le stime di crescita: Pil 2018 +1,1%](#)", November 2018

and South, Italy is still a country with relatively few significant social tensions, unlike other European countries. Public services and Italy's particular social structure help in creating such a climate. Our model did not take into account social stability, if not indirectly through GDP, GDP per capita and GDP per capita PPP. In e-commerce sector, the labor skills are usually the digital competencies of a population, and this is reflected by the importance of Internet Users % and Advanced Education Rate in the model.

On the other side, the most relevant issues that Italy needs to resolve to improve its attractiveness are Labor cost reduction, SME Innovation support and Tax cuts. Corporate taxation is the least attractive aspect of investing in Italy, and according to the database used in the econometric model the country is indeed the second ranked for largest Corporate Tax Rate as a percentage of profits right after France, with a 58.27 percent. We have seen as the correlation of this variable should be negative when not supported by services ad hoc for investing companies; in fact, Corporate Tax Rate is especially high among advanced economies, but it does not stop FDI inflows. The second issue for Italian attractiveness is the flexibility of labor legislation. It is probably the coexistence of both factors that makes them a significant brake to FDI inflows. In order to increase Italian attractiveness, investors suggest that a simplification of the investments process is needed (60%). Moreover, for 54% of respondents, greater promotion of success stories around the globe would prove effective.⁷⁸

⁷⁸ EY Consultancy Firm, Press, "[EY's Italy Attractiveness survey, 2017](#)", 2017

6. Conflict between innovation and legislations in the digital economy

There is a natural conflict among innovation and laws: laws are established to *regulate the existing*, with the mistaken implicit assumption that it will remain immutable; on the other hand, innovation causes changes that are often in conflict or not foreseen by existing laws.

Rules enacted by local and national governments are unable to keep up with the sudden evolution that Internet brought in everyday life. Goods, services, money and workers are moving across borders in ways none of us could have imagined a decade ago. Therefore, digital multinationals face multiple regulatory regimes around the globe, none written with phone-based apps and the gig economy in mind. As a matter of fact, these legislative gaps contributed to the success of many digital companies: several times these multinationals ignored the rules consciously, exploiting the most controversial steps of the regulations to their advantage.⁷⁹

As a consequence, numerous legal conflicts arose between the major digital companies and individual States. The European Commission is working on a unified market capable of meeting the new face of international trade, while launching inquiries into possible e-commerce abuses and malpractices.

Uber and Foodora are certainly the prototype of companies that have faced a lot of legal actions recently, especially for their intensive use of gig economy (which will be extensively discussed in sub-chapter 6.1); but even Apple, Alphabet-Google, Amazon and Facebook have been subject to strong protests - as Microsoft has been in the past.⁸⁰

6.1. The gig-economy phenomenon

One of the ways the digital economy has impacted everyone's lives is also one of the least regulated aspects of the labor market: the gig economy.

⁷⁹ Digital4executive n.29, "[Umberto Bertelè - Innovazione e legge, un conflitto perenne. È inevitabile?](#)", May 2018.

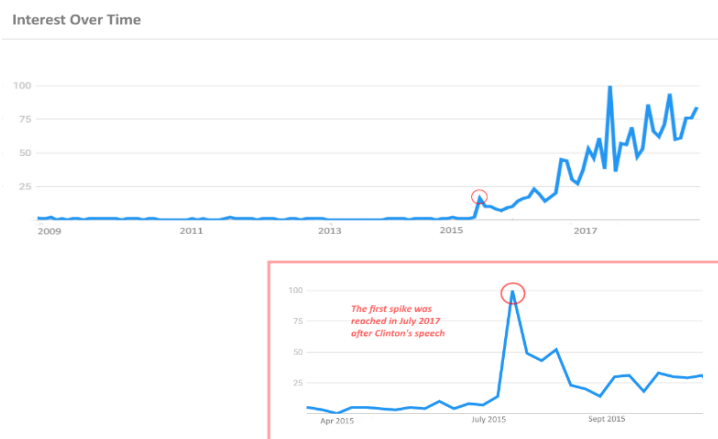
⁸⁰ Digital4executive n.13, "[Umberto Bertelè - Innovazione inclusiva: a Davos 2017 i CEO si convertono al sociale.](#)", 2017

The term was coined in January 2009⁸¹ and entered the common jargon when, in 2015, it was used by Hillary Clinton during the presentation of her economic program for the American presidential race:

*« Many Americans are making extra money renting out a small room, designing websites, or even driving their own car. This on-demand, or so-called gig economy is creating exciting economies and unleashing innovation. But it is also raising hard questions about work-place protections and what a good job will look like in the future. »*⁸²

Gig economy is a growing economic model where "there are few permanent workers and most jobs are assigned to temporary or freelance workers".⁸³ Instead of open-ended contracts, work is done *on demand*, only when there is a need for a particular service, product or skill.

Gig Economy on Google Trend



Demand and supply are managed online through dedicated platforms and apps. They include apps for temporary rental of rooms, for freelance activities or for private transport alternative to taxis. Modern delivery companies that rely on riders and promoters are part of the gig economy too.

Figure 3.1. – the gig-economy term awareness, with the corresponding peak in occasion of Clinton's speech in 2015.
Source: Google Trends Analytics

Since gig economy workers are self-employed and carry out temporary, part-time or occasional activities, their position is highly precarious; the companies they work for tend in fact to provide less guarantees and protections than to a typical employee.

⁸¹ The Daily Beast, Tina Brown, "The Gig Economy", Jan 2009

⁸² The Wall Street Journal, Hillary Clinton Transcript: "Building the 'Growth and Fairness Economy'", 2015.

⁸³ Definition of gig economy from the Collins English Dictionary

Understandably the protection of these workers has been field in the last years for serious confrontations between digital companies and States.

6.2. Uber and Europe

Uber App is a private alternative to taxi service. Founded in 2009 in San Francisco, it soon became a revolution in the transport world: in 2018 Uber is worth more than \$60 billion and it is present in 78 Countries, with an average of 15 million trips a day and more than 3 million drivers active all over the world.⁸⁴

Among the many other products, in 2012 the company launched UberPop, a service that allows anyone with a driver license and a car to become a partner driver. Once registered, the driver can receive a ride requests from customers and receive payments, all through the app. Thanks to its competitive prices, the service grew quickly in America and around the world.⁸⁵

The company however did not enter the European and global transport market without controversies. The several legal disputes rotated on the same concepts: Uber brought a sudden, potentially disruptive change in taxi service, jeopardizing the survival of the entire labor category; furthermore, it is not clear if the company can guarantee a safe service for customers and drivers with its current policies.

In Italy, where Uberpop was first introduced in 2013 with great success, the service has been blocked in 2015. Since then Uber can only operate in the Country with the taxi service UberBlack, more similar to traditional transportation companies.

In April 2015 taxi drivers protested against Uber since its drivers, not being subject to the cost of the taxi service, were able to charge customers significantly less than the market price. The court of Milan approved the motion and blocked the UberPop service in Italy by defining the actions of Uber unfair competition.⁸⁶

The Codacons, the Transport Authority and the Antitrust Authority expressed their disagreement with the sentence of the Court of Milan. Carlo Rienzi, President of Codacons,

⁸⁴ Uber Official Website, Uber Newsroom, *About Us*, July 2018

⁸⁵ Il Sole 24 Ore, Biagio Simonetta, "Uber e l'Italia, storia d'amore (turbolenta) lunga cinque anni", 2018

⁸⁶ Il Sole 24 Ore, Sara Monaci, "Il tribunale lascia a piedi Uber", 2015

appealed to the Ministry of Transport right after the verdict, asking new regulations to legalize those innovative systems that, like the American app, meet market needs by exploiting the new possibilities introduced by technology.⁸⁷

Andrea Camanzi, President of the Italian Transport Authority, suggested in the same occasion few guidelines to allow the UberPop service to operate in Italy. All drivers should be registered; they should be occasional workers, with a maximum annual income and a weekly working hours limit.⁸⁸

The Uber case shows how obsolete Italian transport laws are. The current regulations date back to 1992 [law 21/1992]; they have been partly changed at the end of the last decade, but they do not mention alternatives to traditional taxi, as Uber or MyTaxi apps, leaving *de facto* a legislative gap.⁸⁹ The obsolescence of Italian legislation system rises doubts in economists that consider the UberPop ban as a disincentive to FDI inflow in the Country. However, Italy is not the first country Uber has been banned - or limited- from.

Over the last five years, UberPop has been banned from France, the Netherlands and Finland, under the accusation of unfair competition to traditional taxi services. Uber App has been completely banned in Bulgaria in September 2015, after the company was widely criticized for unfair practices. The company's operations have been suspended in Denmark and Hungary in 2015.

Moreover, Uber has been partially banned in other European regions: since September 2014 Uber drivers require commercial licenses to operate in Germany. Finally the company has been suspended for 9 months in London in September 2017⁹⁰, and faced protests from taxi drivers in Barcelona.

⁸⁷ Il Sole 24 Ore, Biagio Simonetta, "Bloccato il servizio UberPop in tutta Italia. Vittoria per i tassisti. Codacons: danno enorme per gli utenti", 2015

⁸⁸ Luciana Maci "Uber, dall'Autorità dei Trasporti una spinta verso nuove regole", 2015

⁸⁹ GiuriCivile, Paola Colle, "Caso Uber in Italia: disciplina normativa e tutta la giurisprudenza", 2018

⁹⁰ The Independent, Niamh McIntyre, "Uber London ban: The scandals that brought down the ride-hailing app", 2017

These and many other cases led the European court of justice (ECJ) to analyze the situation to legislate whether Uber is a taxi transportation company or a digital platform.⁹¹

The Luxembourg-based court had to decide if the intermediation between the owner of a vehicle and the person who needs to travel within a city — activities that Uber performs for a profit with the management of information technology resources — should be considered as a mere transportation activity, or an information technology service.

After a two years process, in 2017 the ECJ ruled Uber is a transport service company, and, as such, the multinational corporation will have to face stricter EU regulation, comply with the laws that regulate the activities of taxi companies and cooperatives.⁹² This decision brings stability to the European Single market, setting an important milestone for the judges of the individual countries. By following European guidelines, it is possible to standardize the attitude towards gig-economy companies. In this way, FDI in a country are not penalized by legislative differences from European partners.

6.2.1. Uber and the future of the taxi Industry

Uber's quick success proves that this was a much-needed innovation in the global transportation market. In many aspects, Uber provides a better service than the traditional taxi industry.

Uber's rating system is a warranty for the customer and a motivation to drivers to provide great service. Drivers on the other side benefit from the less barriers to entry and the higher flexibility given by Uber. Drivers often use the transportation service as an additional source of income.⁹³

The expansion of the offer, the increase of competition and a smarter sustainable business model could be beneficial for both workers and consumers: today, in fact, the taxi industry is highly regulated, complex and expensive.

⁹¹ Bloomberg Technology, Stephanie Bodoni, *"Is Uber a Taxi Company or Not? The EU's Top Court Will Decide"*, 2017

⁹² The Guardian, Owen Bowcott, *"Uber to face stricter EU regulation after ECJ rules it is transport firm"*, Dec 2017

⁹³ Investopedia, Vanessa Page, *"Is Uber The Future Of The Taxi Industry?"*, 2017

Transport laws should be reformed while maintaining the principle of free competition, but with the realism that the composition of opposing interests requires. The transition from one business model to another has a profound impact a sector, often resulting in the dismissal of many workers.

Today's European decision to ban or limit Uber services should not be a permanent closure to the technological reform of transports; it should give time to the old organization to gradually upgrade to something more Uber-like, even if the Uber model will not be embraced completely.

6.3. The Food Home Delivery Industry

The Food Home Delivery market recently had a fast economic diffusion around the world.

In Europe, the best-known companies are Just Eat, Deliveroo and Foodora. Chapter 4 also mentioned these companies, as they together invested a total of \$25.1 m in Europe for FDI the last fifteen years. These companies are actually very recent, as the older one, was launched in 2006.

However, they rapidly acquired importance in the food industry: in 2017, Just-Eat collected GBP 546.3 million revenue. Foodora GmbH is a German company for home-delivery meals. Founded in 2014, today the company operates globally, and it is worth \$ 4.4 billion.⁹⁴ Deliveroo is a British company founded in 2013, and in only three years it counted 33,000 counting employees and self-employed partners.

The business scheme is similar for all of them: using the website of the company, customers access a virtual storefront where they find profiles of nearby restaurants. Once selected one, they can look at the dishes and the ranking of the restaurant. The customers then order their food and submit their address. The last mile delivery is then performed by a bicycle courier, a so-called *rider*.

These riders are usually considered by the Food Home Delivery companies as self-employees; therefore, they are not protected as other categories. As in the Uber case, they use their means of transportation, and only few companies provide insurance coverage and accident

⁹⁴ La Repubblica, "Foodora in Borsa, vale 4,4 miliardi", 2017

insurance. In December 2017, Deliveroo announced that its riders will have access to the first ever insurance scheme for food delivery riders in the UK on-demand economy. As well as sickness and accident insurance cover, cyclists will also have access to the first-of-its-kind public liability insurance.⁹⁵

In the last years, a considerable number of riders protested across Europe for negative wage conditions and employee protection.

6.3.1. Riders - Regulations in different European countries

As in the Uber case, the riders' protest is a symptom of a more general discomfort caused by the new economic models generated by digital technologies and the lack of suitable regulations.⁹⁶

The laws are not updated to provide the explosion of the gig economy. As governments had to question their transportation laws because of the Uber diffusion, in the food delivery industry the problem is the nature of the contractual company-rider relationship.

Unlike the Uber case, however, in this situation States experience the lack of European guidelines, since the European Commission never expressed on the subject. For this reason, each country must decide independently how to consider the professional figure of the rider.

In March 2018, the Belgian *Commission administrative de règlement de la relation de travail* established that the relationship between a courier and Deliveroo cannot be defined as self-employment.⁹⁷ In December 2017 also the Labor Inspectorate of Valencia, in Spain, had established that the qualification of the Deliveroo riders "actually hides an employment relationship".⁹⁸

Decisions in the opposite direction come from France and the United Kingdom, where the bellhops are framed as autonomous. Austria, on the other hand, only gave the Foodora workers the right to establish a trade union representation inside the company. No judgement

⁹⁵ The Business Reporter, "*Deliveroo riders to get accident and illness insurance to protect income*", 2017

⁹⁶ G. Hadfield, "*Rules for a Flat World: Why Humans Invented Law and How to Reinvent It for a Complex Global Economy*", 2017

⁹⁷ Belaga Agency, "*Deliveroo - Labor Relations Commission Calls Freelance Fake Deliveryman*", March 2018

⁹⁸ El País Journal, Economía, "*La Inspección de Trabajo rechaza el modelo laboral de Deliveroo*", 2017

has come so far from Germany, where however riders are hired as subordinates with the mini-jobs formula; this formula recognizes the nature of the gig-economy activity – a part time job for an extra monthly income. Recognizing its nature, German formula guarantees some labor protection as a minimum wages and accidents insurance.⁹⁹

This heterogeneity is a sign of the presence of a gray area, in which the responsibility of making national market decisions is left to the discretion of the judges of each country. These judges face a complex issue, as there is not a most appropriate line of action, and the choice is made even more difficult by the fact that the rider is a recent labor figure: as a consequence, the meaning of the rider term, as for the labor protections guaranteed, varies from one company to another.

6.3.2. Riders – Labor regulations in Italy

In Italy, as a result of the dialogue between the Italian Government and the food industry major companies, a "Charter of Values" was signed in June 2018. The document ratifies coordinated and continuous collaboration contracts for riders, now considered employees, hourly pay, insurance in case of accidents at work, pension contributions, sickness benefits and other protections. Specifically, the protections can be summarized as follows:

- Contractualization with coordinated and continuous collaboration (co.co.co.) contracts that provide insurance coverage in the event of an accident at work, of which the companies will be fully loaded, and payment of INPS contributions;
- Supplementary insurance for the coverage of possible damages to third parties, totally charged to the companies;
- Fair and adequate compensation, with an hourly basis, and a variable component in relation to the number of deliveries;
- Continuous information on issues related to occupational safety and compliance with the highway code;

⁹⁹ *The Guardian*, K. Connolly, L. Osborne, "Low-paid Germans mind rich-poor gap as elections approach: With no national minimum wage and a fifth of workers in insecure mini-jobs, critics say German prosperity is being built on exploitation of the downtrodden", 2013

- Mandatory supply of personal safety devices (helmet, position lights, high visibility jacket / shirt, reflective thermal backpack) and facilitations with cycle-workshops for the maintenance of the vehicles used;
- The abolition of reputational algorithm or ranking or other tools able to produce classifications, penalizations, or favoritism among collaborators.

What the Italian operation seems to miss, however, is that the gig-economy is a *new* economic system that, consequently, has created a professional figure that did not exist before.

The gig-economy is conceived to rely on freelancer, part-time workers: people who agree to work in this system perform simple tasks (cleaning, driving, delivering food) for the company in exchange for a small fee. The gig-economy, therefore, cannot offer a traditional job, a single and stable source of income; it is, instead, an additional monthly income.

The business model of these digital companies proves it: the company does not provide any own instrument, and the worker evaluation of performances is based on statistics and technological resources.

On the other hand, these companies do not require a job interview: anyone with basic requirements (a license for Uber and, in the case of Foodora, a bicycle and the age of majority) can start working.

Companies do not consider these professional figures as their own employees also because they do not perform any personal checks during the working collaboration; companies only rely on automated processes to distinguish worthy to unworthy collaborators.

Of course, Governments have the task of preventing private companies from taking advantage of grey areas of the law, as widely expressed in this chapter. In these situation, a political intervention is considered necessary. However the Italian "Charter of Values" solves the problem created by the gig-economy equating it with more traditional forms of labor at the regulatory level.

The average gig-economy worker, on the other hand, seems to appreciate flexibility. From an internal research of Uber company, it emerged that two out of three drivers do not want a permanent job from this activity, but only an additional income. And the data collected by ANSA reveals that flexibility is a great value also in the Food Home Delivery market. According

to the agency, 78% of the Deliveroo and Foodora riders are under 30. The riders work an average of 10 hours per week. 50 percent are students, 25 percent are riders as a second job and another 10 percent consider it a transitional activity. The average employment duration is 4 months, and only 15 percent of riders maintain this employment for more than one year.¹⁰⁰

It would perhaps be more appropriate, in addition to the basic protections that must be guaranteed to collaborators, to propose a compromise that also remembers the original spirit of gig-economy. Those who rely on these apps for a steady and consistent income, inevitably find themselves in a critical working condition, since they live the work experience that is configured as an occasional gig in a different way from what it was meant for.

Antonio Aloisi, Ph.D. in Labor Law at Bocconi, Valerio De Stefano, professor of Labor Law at the University of Louvain, and Six Silberman, coordinator of Turkoptikon and trade unionist of IG Metall, expressed their opinions to indicate the characteristics that, in their opinion, should have been the cornerstones of the agreement.¹⁰¹ The interview has been published as an open letter to the Government in June 2018.

The experts outlined a Charter of Values more in line with the neighboring European countries. As showed, in fact, foreign operation considered more the occasional nature of the profession. The main points include the offer of employment contracts to those workers that guarantees the bulk of the orders, relying on occasional riders to deal with the daily orders variance. In the United States, companies of the on-demand economy that aspire to offer a quality service already hire the most productive cooperators to retain the best workers, motivating them and rewarding them. This would only be a natural evolution of the sector's industry, now that the initial growth phase has passed.

Another important point, especially from a FDI point of view, is the normalization of platforms. To reassure investors, worried by the legal battles that have blocked several sharing economy

¹⁰⁰ Ansa Official Website, *"Fenomeno consegne a domicilio, i big del Food Delivery a confronto"*, January 2018

¹⁰¹ Lettera43, A.Aloisi, V.De Stefano, S.Silberman, *"Foodora & co., 11 consigli a Di Maio sulla tutela dei lavoratori"*, June 2018

services in many European countries, platforms should be "normalized", recognized for their peculiar service and their peculiar business structure, to better include them into legislation and abandoning every possible gray-area of the law. Greater security would result in greater trust from investors and therefore greater growth for both companies and host countries.

Finally, these experts considered necessary to distinguish professionals and amateurs. Not all riders work for the same revenue, and therefore they do not offer the same performance. The set of clear criteria to distinguish professionalism from amatoriality was a key point for the distinction of the two workers categories. The European Commission proposed, for example, a set of criteria to be assessed, from the individual remuneration to the overall amount of hours worked.

Obviously, the experts included in their analysis essential labor protections, including clear rules on payments and firing, a stop to outsourcing as a standard alternative to assumption and maintenance of minimum standards of work: even if occasional, in fact, work should not turn into a degrading or dangerous activity.

These suggestions have points in common with the "Charter of Values", but the differences underline how the Italian measure misses to acknowledge the different nature of gig-economy.

6.4. Other virtuous examples around Europe

The Danish Government was among the first in Europe to realize how the gig economy was permeating widely within its local economy, and how it was essential to regulate it to allow a sustainable development for State, consumers and businesses.

The Danish Ministry of Industry, Business and Financial Affairs estimates that, in 2017, there were around 140 digital platforms in Denmark. In 2015 it determined that Danish consumption of car-sharing and private rental through platforms such as Airbnb was between €57 and €83 million.

An important milestone has been reached in April 2018, thanks to a new collective agreement between Hilfr's, a Danish online startup that connects homeowners with cleaners, and its workers. From August 2018 onwards, the agreement will guarantee significant benefits to

CLEANeRS: in a one-year 'trial' agreement, any person creating a profile on the app will start off as a self-employed freelancer. But after 100 hours of work, the platform's algorithm will automatically change their freelance status to that of an employee.

The government took also a further step towards sharing economy's regulation presenting in May 2018 a new legislative strategy divided in 22 points.¹⁰²

The aim of the proposal is to give the sharing economy room to grow in Denmark by developing digital reporting of incomes to the tax authorities, and new tax regulations lowering taxes on income generated via platform. This choice is made to encourage citizens to report additional revenues to the tax authorities.

The motion suggests, among other things, the creation of a government council to discuss the sharing economy's impact on the labor market and take measures against grey areas in existing legislation. The strategy also includes a program to dialogue with the insurance trade and the sharing of the economy and insurance platforms.

6.5. The European Trade Union Confederation reply to Labor challenges in Digital Market

The nature of work and the ways it is performed have changed multiple times throughout human history. Among many other phenomenon, as automation and the diffusion of digital technology, there is also a trend to outsourcing: non-essential tasks and functions have been outsourced to allow companies to cut costs and focus their added value on core competences. Outsourcing has taken on an added dimension through the rise of the gig economy.¹⁰³

Gig-economy has created a dynamic environment in which temporary positions are common and organizations contract with independent workers for short-term engagements. Tasks can be broken down and distributed even more widely through apps and online platforms.

This short-term, highly flexible project-based business approach assembles people who hold specific skills and expertise for the particular requirements of the project and with a limited

¹⁰² Danish Government, Official Site

¹⁰³ European Political Strategy Center (EPSC), *"The Future of Work – Skills and Resilience in a world of change"*, 2016

time and financial commitment. The advantage of this approach is its adaptability and flexibility. However, in the last years a sense of concern for this model has spread across Europe. The European Trade Union Confederation (ETUC) has stated, in a press release issued in September 2016, that:

<< The gig economy needs to meet its responsibilities to workers and society by turning undeclared work into declared work, and that the European Commission needs to help online platforms to do so. >> ¹⁰⁴

The unstable working hours and income, the lack employment rights, the uncertainty around social security and pensions and the lack of access to career development and training higher the risk of precariousness according to many trade unions.

On the other hand, other experts recognize the necessity of regulation and safety, but map out a future where labor market is consistently different from the one we are used to know.

For example, Arun Sundararajan, world expert in sharing economy, and teacher at the Stern School of Business of New York University argues that soon most of the employees will no longer be traditional salaried workers. The trend, according to Sundararajan, will not only affect the gig-economy: in fact, there are already platforms for lawyers, or commercial agents, where professionals make their services available as freelancer.

The trend is undoubtedly real; a local Italian example is the CoContest: a startup in fact has developed an online portal dedicated to homes renovation through competitions between architects and other professionals organized in crowdsourcing organizations.

Sundararajan concludes underling the necessity to create a social contract for this new worker category, since it will soon cover a large part of the economy.¹⁰⁵

¹⁰⁴ European Trade Union Confederation (ETUC), Press Release, “The Commission needs to get serious about tackling new forms of undeclared work”, 2016

¹⁰⁵ EconomyUp, A. Sundararajan, “*The Sharing Economy- The End of Employment and the Rise of Crowd-Based Capitalism*”, 2018

The Confederation of European Business, the European Centre of Employers and Enterprises providing Public Services and Services of general interest (CEEPE) and the European Association of Craft, Small and Medium-sized Enterprises (UEAPME) in a joint response to the consultation on the *Annual Growth Survey 2018*, stated that:

<< Employment regulations should provide the right framework for employers to create jobs. New forms of work are a reality in the context of digitalization. Employers need to adapt to constantly changing economic circumstances. This should go hand in hand with providing appropriate levels of protection to workers and encouraging their mobility on the labor markets. >>¹⁰⁶

However, the document leaves freedom of action for the various countries to interpret these guidelines as they deem appropriate.

¹⁰⁶ Business Europe, “*Annual Growth Survey 2018*”, Oct. 2017

Conclusions

This thesis aims to give the reader a clearer understanding of what e-commerce is and about the differences among companies in large the family of firms that made it their core business. It also aims to give understanding of the strategic choices of these companies, and how they have entered the traditional markets with an outstanding growth in the last decade, largely given by the spread of digital technologies and communication.

Digital companies benefit from an unquestionable competitive advantage given by their business model, that does not requires significant investments in real estate and workforce and, more generally, does not require their physical presence abroad. These intrinsic advantages allowed these companies to compete and, in some cases, outdo traditional firms the same sector.

New companies emerge with new business models and global consequences: since these companies are destined to highly grow in the next years, their light-assets forms of investments are likely to negatively impact the number and capex of global FDIs. Another effect of digital companies is the creation of new jobs. The lack to ad hoc rules in the various host countries led in the past years to an additional competitive advantage to some of these companies, especially those operating in sharing and gig economy. Recently, after several protests from the workers, countries are recognizing these new working realities and are proposing new laws to regulate the new working phenomenon.

The econometric model shows that the most important variables are Internet Users, Railroads, Advanced Education, Labor Wedge and Corporate Tax Rate. These variables were already predicted, but it is certainly reassuring, for the goodness of the model, to find Internet Users among them as one of the most relevant variables. It is also peculiar its behavior when comparing high-income countries.

The ambivalent behavior of the Corporate Tax variable is another interesting element of the model, which manifestly reveals a more complex reality behind the tax system adopted by a country.

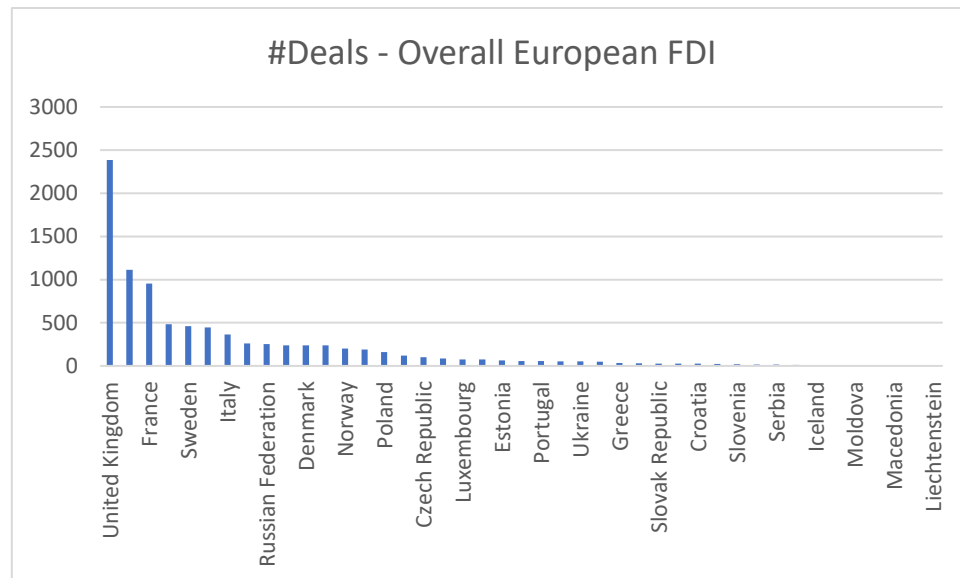
The goodness of the model has been tested on United Kingdom, top hosting economy, on Monaco and Liechtenstein, economically advanced but too small countries, and on Italy, and the interpretations given by us on the model are consistent with the literature on the subject, the reports published by large consultancy companies and with the values present in our database.

Italy, as mentioned, is perfectly in line with our values and with what has been highlighted by the consultancy companies. Corporate tax rate is indeed high, as Italy ranks second among countries with higher Corporate Tax rate with a 58.27%, but recent reforms have lowered it in the last triennium 15-17, as in the previous 12-14 period it was 66.13%. Italy, however, has both a high corporate tax *and* a high labor wedge, which together denotes a possible cause of disattractivity for potential foreign investors: high taxes, in fact, are not counterbalanced by limited labor tax. Also, Bureaucracy is higher than high-income countries average and it has negative contribute on FDI attractivity. Other Italy's intrinsic characteristic is the different economic situation between north and south, and the objective isolation of southern Italy from the rest of Europe, given the geographical conformation of the country. Italian FDI are in fact attracted by northern Italy, that raises Railroads score.

This model certainly identifies the maxi trends in FDI attractiveness, but it is not extremely detailed. First of all, the number of countries is limited. Actually, it is better to focus on a single geographical area has the virtue of comparing countries with similarities and common problems: if we had concentrated our study on global trends, we would have observed very different countries, geographically distant, and with very different problems, identifying once again only the maxi trends.

However, the low number of countries is a disadvantage when combined with the study of such a recent sector as e-commerce. The number of observable FDI is limited indeed. As showed, the e-commerce revolution has exploded in the last 5 years in over 20 observation years, and many of the more successful companies that are also more active with FDI abroad have been founded in the last decade.

Also, in 20 years the top host country has attracted only around 2000 FDI, and the number of foreign direct investments flattens quickly for different reasons from country to country, but given the lack of observation it is difficult to identify:



Finally, e-commerce is constituted by a system of big and small digital companies that operate basically in any sector. The term e-commerce is therefore a common aggregation of companies that present similar business organization and, on a general basis, are also united by the same criteria of choice; however, their similarities are not sufficient to enter into a more elaborate research.

This model has the undoubted merit of trying to analyze a relatively new phenomenon that has still less literature than the manufacturing sector, and that tries to identify the starting characteristics of host economies attractiveness for companies that, despite working in different fields, have significantly impacted the global economy global in very similar ways.

To anyone willing to deepen the subject, it is therefore suggested to select few e-commerce companies in a specific sub-sector of interest and create a set of tailored variables for that specific market.

Bibliography

A. Nana, A. Gyanowa, 2017, "Foreign Direct Investment of Italy – An overview", Ternopil National Economic University

Amazon's official website, "Amazon GO", 2018

Ansa Official Website, "Fenomeno consegne a domicilio, i big del Food Delivery a confronto", January 2018

Belaga Agency, "Deliveroo - Labor Relations Commission Calls Freelance Fake Deliveryman", March 2018

Big data Economics Marketing online Research, "Report e-commerce 2018", 2018

Bloomberg Technology, Stephanie Bodoni, "Is Uber a Taxi Company or Not? The EU's Top Court Will Decide", 2017

Brad Stone, "The Everything Store: Jeff Bezos and the Age of Amazon", 2013

Bureau van Dijk Electronic Publishing, Zephyr database

Business Europe, "Annual Growth Survey 2018", Oct. 2017

Business Europe, "Stimulus for e-commerce positive - but doubts on geo-blocking initiative", 2016

C. Carnaghan, K. Klassen, 2003 "E-Commerce and International Tax Planning", School of Accountancy of University of Waterloo, Waterloo, Canada

C. Dussart, 2001, "Transformative Power of E-Business over Consumer Brands", European Management Journal

CB Insights, "Alibaba Vs. Amazon: How The E-Commerce Giants Stack Up In The Fight To Go Global", March 2018

Competence Centre on Composite Indicators and Scoreboards (COIN) , "The JRC Statistical Audit of the Retail Restrictiveness Indicator", October 2018

Corriere della Sera Journal, D. Polizzi, "Eataly sbarca in America, accordo da 800 milioni per nuove infrastrutture", 2016

CPC Strategy Online, T. Johnson, "What is Amazon A+ Content?", 2018

Danish Government, Official Site

Definition of gig economy from the Collins English Dictionary

Digital Agenda for Europe, Official EU Site

Digital4executive n.13, "Umberto Bertelè - Innovazione inclusiva: a Davos 2017 i CEO si convertono al sociale.", 2017

Dimension Data Journal, "NTT takes new steps to grow its global business and drive innovation going forward", 2011

Doing Business, "Distance to Frontier and Ease of Doing Business Ranking", 2017

Dunning, J.H. and Narula, R., 1994, "Foreign Direct Investment and Governments"

E. Netti, "Accelera il mercato dell'e-commerce in Italia", Il Sole 24 Ore Financial Journal, 2017.

E. Parassaris, 2006, "The Business of Globalization and the Globalization of Business", Journal of Comparative International Management, Vol. 9,

Economy Up, L.Maci, "Eataly in affari con Amazon, venderà cibo online a New York", 2015

EconomyUp, A. Sundararajan, "The Sharing Economy- The End of Employment and the Rise of Crowd-Based Capitalism", 2018

El País Journal, Economía, "La Inspección de Trabajo rechaza el modelo laboral de Deliveroo", 2017

EU Publications, "Practical guide for fostering the revitalisation and modernisation of the small retail sector", April 2018

European Commission - Press release, 2017, "State of the Union 2017 - Trade Package: European Commission proposes framework for screening of foreign direct investments"

European Commission, "Digital single market - Bringing down barriers to unlock online opportunities"

European Commission, EU Consumer Programme, "Consumers' attitudes towards cross-border trade and consumer protection in 2016", 2017

European Commission, Press Release, "Strengthening the competitiveness of the European retail sector", April 2018

European Political Strategy Center (EPSC), "The Future of Work – Skills and Resilience in a world of change", 2016

European Trade Union Confederation (ETUC), Press Release, "The Commission needs to get serious about tackling new forms of undeclared work", 2016

Eurostat – Statistics explained, "Glossary: Ecommerce", 2016

Eurostat, Labor Market – main tables

Every investment that guarantees an effective controlling interest in a firm is a FDI. However, in this paper we rely on the guidelines established by the Organization of Economic Co-operation and Development (OECD), and the International Monetary Fund (IMF) that fix a minimum 10% ownership stake in a foreign-based company.

EY Consultancy Firm, Press, "EY's Italy Attractiveness survey, 2017", 2017

Fatto Quotidiano Journal, P. Rossa, "Eataly pronta a vendere prodotti freschi online", 2014

Financial Time Journal, Y. Yang, "China's ecommerce giant JD.com to take on Amazon in Europe", February 2018

Financial Times Journal, C. Clover "Alibaba buys controlling stake in retailer Lazada", 2016

Financial Times Research, "Alibaba bets on do-it-yourself globalization", 2017

Financial Times Specialist Website, Economic Development & Foreign Investment Professionals Section, FDI Intelligence page.

Forbes, O. Smith, "Just What Is Alibaba Up To In Europe?", June 2018

G. Bergamo, C. Pizzi, 2014, "Foreign Direct Investment and Psychic Distance: a gravity model approach", Rivista Italiana di Economia Demografia e Statistica

G. H. Hanson, 2001, "Should Countries Promote Foreign Direct Investment?", G-24 Discussion Paper Series

G. Hadfield, "Rules for a Flat World: Why Humans Invented Law and How to Reinvent It for a Complex Global Economy", 2017

G. Ietto-Gillies, 2014, "The Theory of the Transnational Corporation", London South Bank University and Birkbeck University of London

G. Zekos, 2005, "Foreign direct investment in a digital economy", University of St Andrew, European Business Review, Vol. 17 No. 1.

GiuriCivile, Paola Colle, "Caso Uber in Italia: disciplina normativa e tutta la giurisprudenza", 2018

Il Sole 24 Ore Journal, C.Milani, "E-commerce in Italia al microscopio: migliora ma per le piccole imprese è l'anno zero", 2017

Il Sole 24 Ore, "Istat, Pil +0,9% nel 2016 (+0,2% nel quarto trimestre): miglior dato da 6 anni", 2016

Il Sole 24 Ore, "Istat: crescita Pil 2017 a +1,4%: è la più alta da 7 anni", 2017

Il Sole 24 Ore, "Italy rises to 13th place in global FDI attractiveness rankings", 2017

Il Sole 24 Ore, Biagio Simonetta, "Bloccato il servizio UberPop in tutta Italia. Vittoria per i tassisti. Codacons: danno enorme per gli utenti", 2015

Il Sole 24 Ore, Biagio Simonetta, "Uber e l'Italia, storia d'amore (turbolenta) lunga cinque anni", 2018

Il Sole 24 Ore, Sara Monaci, "Il tribunale lascia a piedi Uber", 2015

Institute of Developing Economies, W. Yuiki, "Tax differentials and inflow of foreign direct investments", 2010

Institute of Labor Economics, J. Ordóñez, H. Sala, J. Silva, "Real Unit Labour Costs in Eurozone Countries: Drivers and Clusters", 2014

International Data Corporation Media Center, Official Website

Investopedia, Vanessa Page, "Is Uber The Future Of The Taxi Industry?", 2017

ISTAT Annual Reports, "Rapporto sulla Conoscenza 2018", 2018.

JD.com official site, Press Release, "JD.com Announces First Quarter 2018 Results", June 2018

K. Amadeo, 2018, "Foreign Direct Investment, Its Pros, Cons, and Importance to You", Online business Encyclopedia

La Mescolanza Online Journal, "Chiude il sito Storytalia", 2015

La Repubblica, "Foodora in Borsa, vale 4,4 miliardi", 2017

La Repubblica.it, Economy and Finance section, "L'Istat rivede al ribasso le stime di crescita: Pil 2018 +1,1%", November 2018

La Voce Journal, I.Lagrosa, J.Tozzo, "Export, piccolo miracolo italiano a rischio Trump", 2018

Lettera43, A.Aloisi, V.De Stefano, S.Silberman, "Foodora & co., 11 consigli a Di Maio sulla tutela dei lavoratori", June 2018

Luciana Maci "Uber, dall'Autorità dei Trasporti una spinta verso nuove regole", 2015

M. Savrula, A. Incekarab, S. Senerb, 2014, "The Potential of E-commerce for SMEs in a Globalizing Business Environment", Canakkale Onsekiz Mart University, Çanakkale, Turkey

Nasdaq Online Journal, April 2018, "Foreign Direct Investment Drops Ahead of Protectionism and Trade Wars"

OECD Digital Economy Papers, No. 40, "Economic and Social Impact of E-commerce: Preliminary Findings and Research Agenda", 1999

OECD Reports, "FDI IN FIGURES: FDI gains momentum in second half of 2014", April 2015

OECD Reports, "World Investment Report 2018 - Investment and New Industrial Policies", ch.2, Regional Trends, 2018

OECD Reports, Wilson Perez Nunez, 1990 "Foreign Direct Investment and Industrial Development in Mexico"

Perpetua Official Site, Award section, 2018

R. B. Daviest, R.Desbordes, A.Ray, 2014, "Greenfield versus Merger & Acquisition FDI: Same Wine, Different Bottles?"

Reuters, "Exclusive: China's JD.com targets \$2 billion fundraising at logistics unit – sources", January 2018

S. K. Dutta, 2008, "Intangible Assets as a Source of Competitive Advantage"

Seeking Alpha, "JD.com Vs. Alibaba: A Comparative Study", 2017

Stata Statistics and Data Science, Official Site

Statista – The statistic portal, "Amazon - Statistics & Facts", 2017

Statista, the online Statistics Portal, "Global markets with the highest online shopping penetration rate as of 2nd quarter 2017", 2017

Statista, the online Statistics Portal, "Online or in-store shopping preference for selected product categories by consumers worldwide", 2017.

Statista, the online Statistics Portal, "Retail e-commerce sales worldwide from 2014 to 2021", 2018

The Balance Journal, K. Amadeo, "Recession Versus Depression and How to Tell the Difference", December 2018

The Business Reporter, "Deliveroo riders to get accident and illness insurance to protect income", 2017

The Daily Beast, Tina Brown, "The Gig Economy", Jan 2009

The Economic Times "Definition of Gross Domestic Product", 2014

The Financial Times, "1000 Europe's fastest growing companies", 2017

The Forbes Journal, H. Laubscher, "For Brands, Alibaba Is The Gateway To China And Chinese Customers", June 2018

The Guardian, K. Connolly, L. Osborne, "Low-paid Germans mind rich-poor gap as elections approach: With no national minimum wage and a fifth of workers in insecure mini-jobs, critics say German prosperity is being built on exploitation of the downtrodden", 2013

The Guardian, Owen Bowcott, "Uber to face stricter EU regulation after ECJ rules it is transport firm", Dec 2017

The Independent, Niamh McIntyre, "Uber London ban: The scandals that brought down the ride-hailing app", 2017

The Wall Street Journal, Hillary Clinton Transcript: "Building the 'Growth and Fairness Economy'", 2015.

The World Bank, Official Site

Uber Official Website, Uber Newsroom, About Us, July 2018

UNCTAD, "Global foreign direct investment slipped in 2017", Jan 2018.

UNCTAD, "World Investment Report 2017 - Investment and the Digital Economy", 2017

UNCTAD, "World Investment Report 2017 - Investment and the Digital Economy", 2017

UNCTAD, "World Investment Report 2018 – Investments and new Industrial Policies", 2018

United States E-commerce Foundation, Press Release, "2017 United States B2C E-commerce Report", 2017.

WORLD DATA ATLAS, ITALY study "Net foreign direct investment inflows data", 2017

X. Wang, 2012, "Foreign direct investment and innovation in China's e-commerce sector", International Business School, Brandeis University