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**"Examining Women's Presence in Criminal Firms:
Evidence from Italy"**

RELATORE:

CH.MO PROF. Michele Fabrizi

LAUREANDA: Eleonora Checchini

MATRICOLA N. 1179586

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Firma dello studente

Ai miei Genitori...

Il mio punto di riferimento, il mio porto sicuro.

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INTRODUCTION

The heterogeneity of the board of directors is increasingly considered a corporate strategic resource able to ensure advantages both in terms of competitiveness and achievable economic-financial performance. Numerous authors in the literature have provided evidence about the crucial role played by women within the management bodies. Beside to state the positive link between gender diversity in top management positions and corporate financial performance, different studies have revealed how women's presence in company boards improves transparency and corporate governance practices, ensuring a more appropriate and correct monitoring activity of managers' performances (e.g. Dezso and Ross 2012).

The research, after analysing the women's contribution and the major challenges encountered by the same in the labour market (so-called Glass Ceiling effect), will examine the organized crime phenomenon, investigating the extent to which criminal companies use the female sex in their administrative boards.

The aim of this master's Thesis is to analyse how, compared to non-criminal companies, criminal companies use women on their corporate boards.

In this regard, an empirical analysis involving a final sample of 3242 companies located in the Central and Northern area of Italy was carried out. The final dataset, in turn, was obtained from 2 initial datasets including: a sample of 650 criminal companies, and one of 2735 non-criminal companies operating in the same provinces and sectors identified for the criminal ones. Data related to the board composition and to the presence of male or female members, along with financial measures, have been collected for the final sample. Proceeding in this way, it is possible to examine through a multiple regression analysis the existing relation between the criminal or non-criminal nature of the company and the percentage of women included in their board of directors, assessing whether the female involvement can be explained by the criminal factor. Moreover, a logistic regression model will examine the different probabilities to have a woman within the board of directors considering respectively criminal and non-criminal firms.

The research is structured in 4 chapters.

The first chapter, as previously described, presents an overview of the evidence provided by the literature on women's role in the labour market. It examines the main challenges and

obstacles faced by women, the direct consequences of such difficulties and women's strategic contribution to the business.

The second chapter presents an overview of the literature on the organized crime, describing the progressive recognition of criminal groups as entrepreneurial criminal organisations that infiltrate the legal economy mainly with the aim of earning new profits and ensuring the control of the territory (Arlacchi 2007). After an analysis of the main drivers that, according to the literature, influence the choice of economic sectors infiltrated by organized crime, the thesis presents a more detailed description of such industries. The research, in addition, examines the most adopted management and ownership strategies that characterize criminal companies: these can lead to the identification of red-flags able to facilitate the recognition process of an infiltrated company.

The third chapter, with the aim of examining the evidence provided by the literature on the use of women in the corporate boards of criminal companies, describes the existing two opposite lines of thought on the basis of which I formed my research hypotheses. Do criminal companies, compared to non-criminal ones, use more women on their company boards? Some authors (e.g. Savona and Riccardi 2018) describe the growing presence of women in criminal firms, mainly as figureheads. In their opinion, women, since less suspicious, can be useful resources to divert judicial authorities' controls on criminal organizations. On the other side, another branch of literature supports the opposite view related to the lower use of women in the boards of criminal firms. This is justified by argumentations mainly connected to their risk aversion, emphasis on moral principal and ethical behaviours.

The last chapter illustrates the empirical analysis performed, describing the units of observations and the process by which the final sample was obtained. Lastly, it illustrates the statistical method applied to investigate the research hypothesis, arguing the results obtained.

CHAPTER 1

Women's role in the labour market

1.1 OVERVIEW OF THE CURRENT STATUS OF WOMEN ON BOARD OF DIRECTORS

The correct composition of the board of directors is considered one of the effectiveness profiles of the corporate governance systems. An effective governance contributes to increasing the reliability, transparency and integrity of corporate conduct, creating the premises for greater competitiveness of companies on the markets, lower capital costs and greater corporate value (Pastore 2018). A strategic resource in terms of competitiveness and economic-financial performance of the company is the heterogeneity of the board of directors' members. Under this perspective, especially in the recent years, has gained importance the matter concerning women's participation on the corporate management and control bodies, whose progress has been monitored by agencies from all over the world such as the European Institute for Gender Equality, EgonZehnder and Credit Suisse (Devnew et al. 2018).

The interest on the topic of Women on board (WoB) has grown dramatically with the introduction in 2005 of a quota law requiring Norwegian public limited-liability companies the presence of each gender for at least the 40% on their board of directors (Rasmussen and Huse 2011). The implementation of the Norwegian law in 2008 was followed also by other countries including Italy, France and Germany, determining an increasingly attention towards gender diversity issue even outside of Europe. Spain and France required listed companies to reach the 40% of women on boards by 2015 and 2017, respectively. The Netherlands imposed, instead, a participation of each gender for at least the 30% by January 2016, while Belgium has issued a law requiring state and publicly-listed companies to have a minimum of one-third of each gender on management boards (1 year and 5–8 years to comply, respectively). Countries such as the UK, Finland, and Sweden, have executed voluntary standards in order to sustain gender balance on boards (De Cabo et al. 2012).

Data presented on the following table (Table 1) synthetize the evolution of women's participation on boards as described and obtained from Credit Suisse's 2016 report, the European Institute for Gender Equality data base and the Gender Diversity Index for Fortune 1000 companies.

Table 1: The evolution of women’s participation on boards

Country	2010	2011	2012	2013	2014	2015	2015	2016	2017
China	8.8%	9.0%	9.6%	10.7%	9.1%	9.2%			
France	16.1%	21.6%	25.1%	29.6%	31.4%	34.0%	32.8%	37.1%	42.1%
Italy	5.5%	4.6%	9.2%	17.5%	21.7%	30.8%	25.8%	30.0%	32.9%
Norway	36.6%	38.7%	37.2%	39.7%	41.2%	46.7%	36.4%	41.4%	44.0%
United Kingdom	10.1%	11.9%	15.5%	17.9%	21.0%	22.8%	25.9%	27.1%	27.7%
United States	12.7%	12.8%	13.3%	13.7%	15.5%	16.6%	18.8%	19.7%	20.8%
Global average	9.6%	10.3%	11.3%	12.7%	13.7%	14.7%			

Source: Devnew, L. E., et al., 2018. *More Women on Boards: An International Perspective*, p. 12

By examining the scenario in Italy in more detail, it is possible to observe how a decisive step was achieved with the application of Law 120/2011 (so-called “Legge Golfo-Mosca”). This provision, which has been in force since August 2012, required mandated gender quotas (at least one-third of board seats) for Italian listed companies, to be reached within the first three renewals of the corporate bodies. Significant improvements at company level and a new stimulus to competitiveness have been originated from the fairer and richer participation of women in company boards. As part of the “Women mean business and economic growth”¹ project, carried out by the *Equal opportunities department* of the council presidency and by the *Bocconi University*, it was possible to get the first assessments regarding the introduction of the just mentioned law.

The study examined the profiles of about 3170 managers and auditors, both men and women, belonging to three distinct groups of companies: those that after the approval of the law kept the board unaltered, those that changed the board when the law was already approved but was not yet in force, and those that renewed the council only after the law came into force. The research showed a clear increase in the number of women participating and, alongside this effect, an improvement in the quality of the selected directors as well as their rejuvenation. In addition, it was possible to observe how neither the number of councillors chosen within the family circle, nor the so-called “*golden skirts phenomenon*” (few women in many councils) has increased significantly (Pastori 2018). Italy, therefore, is experimenting an important progress

¹ <http://www.governo.it/it/articolo/women-mean-business-and-economic-growth-promoting-gender-balance-company-boards> [03/07/2019]

and, for this reason, it ranks among the best European practice, behind only Norway, France and Sweden.

However, despite this scenario bodes well, there is still a long way to go: the number of women in councils has certainly increased, but the percentage of women with the role of president is still too low and unsatisfactory. Women, as will be investigated in the next paragraph, have to face numerous challenges and obstacles that are at the basis of the inequalities that they have encountered while trying to climb the corporate ladder.

1.2 THE WOMEN'S POSITION: DIFFICULTIES AND BARRIERS

Regardless of the country or profession analysed, the progress of women managers has occurred at a quite slow pace. The presence of the so-called "glass ceiling effect" has further explained the slowdown of such advancement that, especially in the previous decades, has reduced the opportunities of women to meet positions of power in the corporate scenario. The Federal Glass Ceiling Commission (1995, p.4) described the glass ceiling effect as: "the unseen, yet unbreachable barrier that keeps...women from rising to the upper rungs of the corporate ladder, regardless of their qualifications or achievements". Such gender-based barriers that hinder women's advancement to top teams include, among the others, disadvantageous practices, absence of policy initiatives and execution by F500 leadership and gaps in sponsorship.

Eagly and Carli (2007) have stated how, despite the launch of strategic and organizational initiatives to break down these obstacles had been implemented by different management stakeholders, such gender issues continue to remain a prerogative due to the invisible nature of glass ceiling barriers.

In 1995 the Glass Ceiling Commission report identified four classes of barriers that were preventing women from realizing an upward placement into senior and executive positions. Societal, governmental, internal business, and business structural barriers were the ones identified by the US Glass Ceiling Commission (1995). Among the societal obstacles, themes such as the opportunity and attainment, bias and prejudice have taken on a crucial role. For what concern the governmental issues, instead, three barriers have been identified as the main impediments to women's progress: the lack of powerful and robust monitoring and law enforcement, the weaknesses in the gathering and definition of employment-related data which generates difficulties in identifying the status of groups at the managerial level and in disaggregating the data, and the inappropriate reporting and disclosure of information associate with glass ceiling issues. An additional category of barriers recognized by the US Commission

included the recruitment and outreach obstacles. Companies unable to actively recruit women into their offices will have a smaller pool from which to draw for promotion into upper management positions. Even in the case in which women can overcome such recruitment barrier, they will be subject to what the commission defines as corporate climate barriers, such as divergent gender communication styles, conducts, and ways of approaching. To limit the opportunities accessible to women finally there are the so-called *career pipeline barriers* that include the lack of mentoring and specific training, initial placement in dead-end jobs, different standards for performance evaluation for women and men associated with biased testing systems, and little or no access to informal networks of communication. These barriers continue today to be the leading aspects preventing women's upward mobility towards senior management charges (Johns 2013).

Another critical factor that can explain why women are being held back relates to the presence of differences in confidence and career ambition between men and women. A study carried out by the Institute of Leadership and Management (2011) has revealed how women are characterized by lower ambitions and expectations in comparison with men associated also with a lower career clarity. This, in many cases, can be explained by a lack of self-confidence and self-belief which can result in women more thoughtful and prudent career choices. To support what has been just mentioned, this study has revealed how only the 40 percent of women wanted to assume CEO positions compared to the 70 percent associated with males.

The absence of a sponsor who promotes and supports the spread of women's skills and abilities throughout the organization and helps their climb in the organizational structure has been recognized as another critical factor which hinders the women upward mobility (Wlanyc 2011). In such direction, a study launched in 2009 with support of American Express, Deloitte, Intel, and Morgan Stanley revealed that women either undervalue the role that sponsorship plays in career mobility or fail to foster it.

Gender stereotypes and communication differences create problems for women as well. Typically, the women's communication style, appearing as warmer, less directed, and more mitigated than men, can negatively impact the perceptions of women's abilities (Johns 2013). In addition, it is visible how their competences and skills are assessed differently than men's. Davidson (2006, p.77) stated: "People judge women's abilities more harshly than men, holding women to a higher standard of competence and evaluating female managers and leaders more critically than their male counterparts".

McKinsey's research (2015) has shown that women's careers are undermined not so much in the selection phase but, rather, in the promotion one. Indeed, the true gap is represented by the nature and relevance of women's corporate positions and not by the number of roles assigned to them. This explains how, despite the increase in the number of female figures into board of directors (from 5.9% in 2008 to 30.8% in 2016), what is lacking is the concrete possibility of exercising power: there are female CEOs in only 7% of Italian listed companies which represent less than 2% of the capitalization of the Italian stock exchange.

Women directors explained the low concentration of women on corporate boards mainly to the attitudes of male CEOs and Board Chairmen. The following table (Table 2) shows some of the most frequent comments of women directors that illustrate their feelings and thoughts:

Table 2: Why so few women directors?

Reasons	N	%
Think women not qualified	126	45.3
Not enough qualified women	70	25.2
Afraid to take on women not already on boards	121	43.5
Aren't looking to put women on	134	48.2
Don't know where to look	143	51.4
Women did/have a women's agenda	98	35.3
Qualified women not making interests known	109	39.2
Qualified women not interested in serving	10	3.6
Other	67	24.1

Source: Burke, R. J.,1997. Women on corporate boards of directors: A needed resource, p. 41.

Breaking the glass ceiling is a long and difficult process which requires commitment from several stakeholders. Government, employers, academic institutions, and women themselves are all indispensable players, crucial in the undermining of these barriers. Despite this process requires many efforts from such different fronts, its implementation will be crucial and strategic given the importance of women's role within companies' board of director. To preserve female intelligence is necessary that companies activate proactive policies and initiatives aimed, for example, at a careful monitoring of the assessment and career process and at the implementation of flexibility programs able to facilitate and promote a work-life balance (Pastore 2018).

The concept of the glass ceiling is not recent and, unfortunately, in current years another expression, "*the glass cliff*", has been added to the previous one. The expression, coined in 2004 by the psychologists Ryan and Haslam, refers to a situation in which women, despite get success in traditionally male roles, are more at risk of losing their jobs and being judged incompetent. Such phenomenon is the direct consequence of the tendency to entrust women with precarious

leadership positions associated with a higher risk of disapproval, unpopularity and failure. The women, in such scenario, are penalized twice: they must face more difficult tasks that make the achievement of their success more complicated, and they have to deal with negative prejudices which are emphasized by the difficulties in measurement of the actual economic impact of female leadership (Festuccia 2013).

Ryan and Haslam (2005) argue that women are more likely than men to be placed in positions already associated with poor company performance that, inevitably, are associated with a further element of danger. This is because these firms, by facing with bad performances, are already exposed to the negative reaction of both the media and the stock market. The analysis of such phenomenon is useful to provide another important conclusion that will be investigate in the next paragraph: different contexts will determine different suitability of men or women for positions of leadership.

1.2.1 THE IMPACT OF THE CONTEXT: THE GLASS CLIFF CHALLENGE

Much of the evidence provided in the literature for gender differentiation in the workplace appears to reflect people's implicit theories about leadership and gender. The different results achieved seemed to confirm the perceived incompatibility between general beliefs describing a good leader and what it means to be female (e.g. Eagly & Karau 2002). Under this perspective, Berthoin Antal and Izreali (1993, p.63) stated that "probably the single most important hurdle for women in management ... is the persistent stereotype that associates management with being male".

Under this perspective, the results of Schein's research confirmed how both male and female (Schein, 1975) managers thought that males were more likely than females to present the features directly correlated with managerial success: within the range of the ninety-two descriptors considered, sixty were valued to be typical of both managers and men such as being self-confident, emotionally stable, competitive, aggressive, self-reliant, determined and well informed.

The just described people's implicit theories did not appear as only descriptive, but also strongly prescriptive (Rudman & Glick 2001). As a result, therefore, they orientated not only how individuals act, but also their expectations about how others should behave, thus fuelling the

permanence of stereotypes that considerably affected the way in which women (and men) are treated in the workplace.

If all these mentioned works promoted a perspective “think manager-think male”, other authors have argued that, in crisis situations, individuals may not automatically apply such view but may, conversely, be more likely to “think crisis-think female” (Ryan et al. 2007). The logic is the one, therefore, to not thinking at the existence of a single prototype of a good leader across all situations. A leader may appear as highly effective in one situation but, valued as ineffective in another, determining that the assessments of leadership effectiveness vary across different scenarios and that the definitions of a good leader are strongly dynamic and context-dependent. This statement will explain how people will rely to stereotypes about gender and crisis management to validate the presence of glass cliff phenomenon. Research by Ryan, Haslam, and Postmes (2007), after having witnessed how approximately 16% of women and 10% of men believed that gender stereotypes played a crucial role during crisis times, suggested the better suitability of women in recession period. The authors justified this phenomenon for the “special” abilities owned by women. Indeed, females: “always want to help the underdog”, “have more skills to balance risk,” and “tend to cope with failure more pragmatically than men” (Ryan et al. 2007, p. 190). The same results have been reached also by Eleanor Roosevelt, who has illustrated the female figure with the use of a metaphor able to reiterate the statement that women tend to emerge and prevail in times of crisis: “A woman is like a tea bag: You never know how strong she is until she gets into hot water” (Ayres 1996, p. 199).

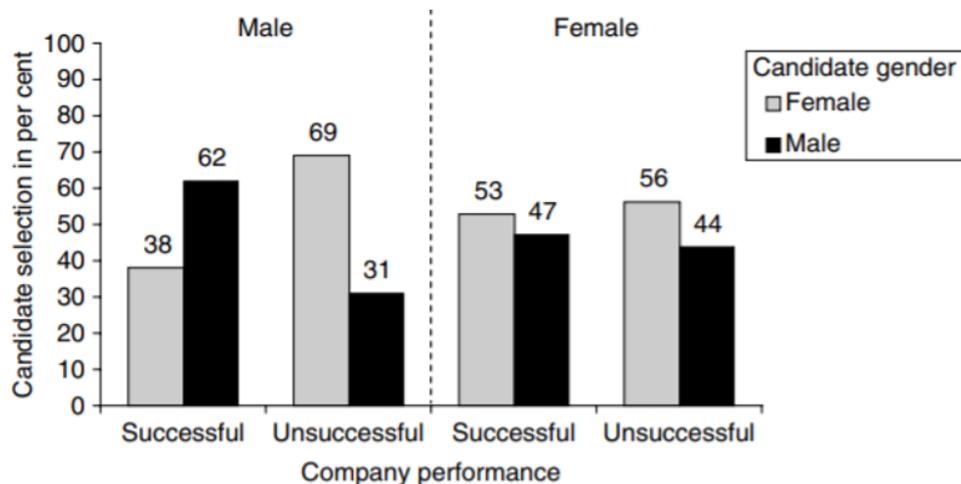
Analysing the results of Schein's research (1975) it was possible to observe how, among the ninety-two descriptors used, a small group of traits linked to managerial success was considered more related to the female figure. These comprised traits that seemed to be particularly relevant and meaningful in times of crisis such as being understanding, intuitive, helpful, creative, aware of the feelings of others, and cheerful. This result has been confirmed also from an empirical evidence coming from a series of four studies in which participants were asked to recognize traits associated with (1) managers of well performing companies; (2) managers of underperforming companies; (3) women; or (4) men (Ryan et al., 2007). A “think manager-think male” effect has been replicated for describing managers’ profiles of successful companies but, these studies, have also demonstrated that such association was either reduced or totally inverted for managers of underperforming companies.

An explanation of such findings can be searched in the status-quo bias; as long as a firm performs successfully, no perceived need to change will emerge, determining a bias to preserve the status quo (e.g., Samuelson & Zeckhauser, 1988). Considering the predominant male history

of leadership, thus, it is totally plausible to expect a higher selection of men for leadership positions in times of success associated with a glass ceiling effect for women aspiring to the same role. Vice versa, whenever a company is underperforming a need for change will determine a preference towards the appointment of a female leader in order to promote the necessary transformation and move away from those managers who have caused the organization's failure.

To confirm what just mentioned Bruckmuller and Branscombe (2010) have analysed how, in a successful company with a male history of leadership, participants were inclined to choose the male candidate (62%) over the female candidate (38%), conversely, when the focus was on the same company but in a serious crisis scenario members significantly preferred the female candidate (69%) over the male one (31%) (Figure 1):

Figure 1: The gender effect on selection process.



Source: Bruckmüller, S., and Branscombe, N. R., 2010. The glass cliff: When and why women are selected as leaders in crisis contexts, p. 438.

The result that leads to think of feminine traits as more advantageous and beneficial in times of crisis, unfortunately, is not enough for considering the glass cliff phenomenon a mean to realize the positive shift toward the recognition of women's leadership skills. Indeed, the fact that women are more likely to be involved in problematic corporate circumstances can imply their participation in a battle that leaves them totally exposed to potential criticism in the (highly probable) event of organizational failure (Ryan & Haslam 2007). Moreover, also under the positive hypothesis of success, as witnessed by a female respondent in an online interview (Ryan et al. 2007, p. 272-273), the effect is not necessarily the desired one:

“I was promoted into a difficult management role (where a previous male manager had failed) with the hope that I would turn it around. When I did, the "reward" was to be moved to another turnaround role-without any additional financial reward or kudos[horizontal ellipsis] I often wonder if I'm just a fool to accept such challenges. I doubt that the men would”.

The glass cliff appears, therefore, as another form of gender discrimination that reflects sexism and that appears as a further woman’s managerial and professional challenge alongside other discriminatory mechanism associated with performance evaluation, wage and career opportunities.

1.2.2 GENDER PAY GAP

A critical factor that witnesses the diversity of treatment between men and women is represented by gender pay gap. This, according to the Eurostat definition, is calculated as the difference between the average gross hourly wages of men and women expressed as a percentage of male wages. Europe in recent years has experienced a reduction in the gender pay gap, testified by the Eurostat data, which shows a decrease from the 17.1% of 2010 to 16.2% of 2016. However, this indicator must be considered a raw measure since it does not consider factors such as age, level of classification, educational qualifications, etc. etc. Considering Italy, for example, despite at a general level the gender remuneration gap is rather restrained, it increases considerably focusing on the younger age groups where the same reaches the 16% (Figure 2a; Figure 2b).

Figure 2a: Gender pay gap in Europe (2016)

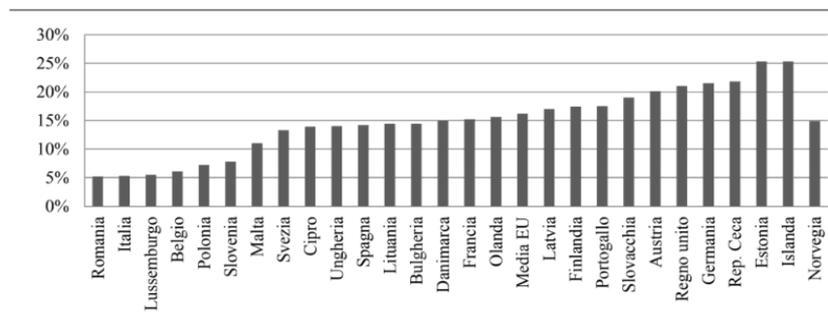
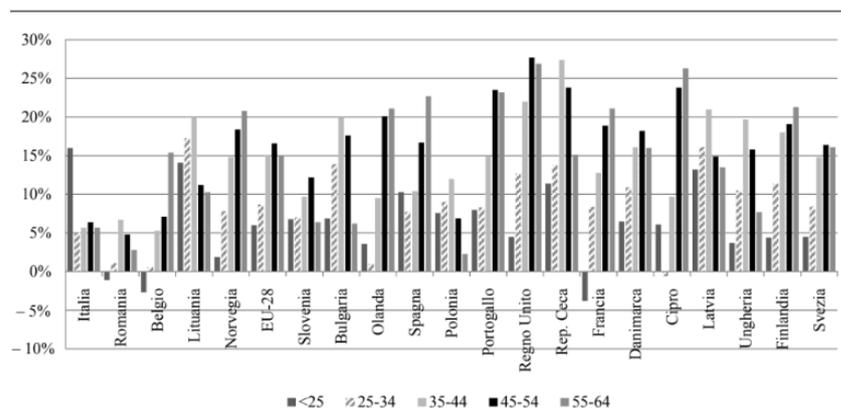


Figure 2b: Gender pay gap by age classes (2016)



Source: De Masi, S., 2019. *La diversità di genere negli organi di governo delle imprese*, p. 34.

Furthermore, the analysis of this phenomenon should be carried out by disaggregating the data and allowing, in this way, the investigation of the differences in the economic treatment between part-time and full-time work, for instance. Different working hours considered, determine differences in the breadth of gender pay gap. Countries such as Italy, Spain, Poland, Belgium and Latvia have wider gender pay differences in part-time occupations, conversely, Germany, Holland, Denmark, Sweden experience larger gender differences in full-time work. The industry taken into consideration is another element responsible of greater or lower gender pay gap. The private sector is the one with the greatest gender inequalities, especially in countries such as Cyprus, the Czech Republic, Portugal and the Netherlands where the gap exceeds the 23%.

To consider all such differences Eurostat has generated the so-called *Adjusted gender pay gap*, an indicator that measures the impact on the average income of women and men of three combined factors: hourly wages, number of hours paid and the employment rate. In 2014, the value of the *Adjusted gender pay gap* has reached the 39,6% in European Union and the 43,7% in Italy.

As reported from the above-mentioned data, the retribution differences between men and women are still relevant. For this reason, it will be necessary to investigate the causes underlying this scenario. According to a European Union report (European Commission 2017) it is possible to identify 5 factors responsible of this economic treatment discrepancy. The first aspect to consider is the direct discrimination described as the cultural attitude to pay women less than men. Segregation in the labour market is another crucial element: women generally are present in industries and roles that, by their nature, are associated with lower wages (Fortin 2005). The third factor is related to stereotypes and traditions about education and working time

choices: female students tend to choose certain disciplines associated with lower paid positions and to prefer, because of maternity issue, part-time roles. The data shows that the female employment rate decreases with the increase of children, while that of male employment tends to increase with the transition from one to two children (European Commission 2017). The fourth element is strongly related to the difficult balance between work and private life that women traditionally experience. This critical equilibrium is at the basis of women's more frequent interruptions of careers and fewer working hours compared to men.

From the reading of this paragraph, it is evident that the female situation is still far from a complete gender equality characterized by the absence of disparities and differences in treatment between men and women. The next part of the master thesis will focus on an analysis of the motivations that explain the strategic importance of guaranteeing a corporate female presence.

1.3. WOMEN'S CONTRIBUTION ON THE BOARD OF DIRECTORS

Over the years, many studies have been conducted with the aim of investigating the link between gender diversity in top management positions and corporate financial performance. One of the first empirical evidence that revealed the positive correlation between the women's inclusion in the executive suite and firm profitability was provided in 2001 by Adler. The scholar, by relying on three measures of profitability such as profits as a percent of revenues, assets, and stockholders' equity was able to demonstrate that the 25 Fortune 500 firms associated with the highest female participation in the corporate bodies are between 18 and 69 percent more profitable than the median Fortune 500 firms in their respective industries. The study also recorded a higher profitability of firms associated with very best scores for promoting women in comparison to organizations with scores only rated as good. Another crucial research, conducted by Lockwood (2004), has investigated two financial measures related to companies operating in five different industries: information technology or telecommunication services, consumer discretionary, financial, industrial, and consumer staples. Companies with a higher women's representation on their executive teams showed greater return on equity (ROE) and total return to shareholders (TRS), respectively of 35 and 34 percent, than the firms with the lowest women's presence. The gender diversity has revealed also a positive effect on the stocks of companies that went public: a sample of initial public offering (IPO) firms showed a better performance in both short-term and long-term perspectives when the focus was limited to companies with higher female representation (Welbourne 1999). The purpose, at this point, is

the one to analyse the different advantages lead by female presence on control bodies responsible for the just mentioned positive impact on corporate performance.

The greater presence of women in corporate bodies guarantees greater availability of talents and skills and improves the effectiveness of councils. The gender diversity, moreover, allows the increase of board of director's independence, plurality of strategic approaches to business, growth of perspectives in problem analysis and decision-making, enhancement in the representation of all shareholders and, above all, it contributes to the improvement of the corporate image.

Female figures are distinguished from those of men by distinctive attitudes and values that are strategic in the achievement of corporate goals: ability to face the complexity and novelty, ability to learn and simplify, to find solutions and share them with others, and to focus on details (Brieger et al 2017). Vento (2013) argue that 7 out of 10 characteristics that distinguish a leader are typically feminine. Women are more persuasive and determined, have greater desire to complete tasks and even in their social relationships they are more empathetic due to their greater communication skills. They are better followed by teams thanks to their desire to understand and satisfy the curiosity of the single subject from which dynamism and creativity can arise. Women's efforts to understand business decisions in articulated and varied contexts, moreover, encourages teamwork and the ability to adapt to an economy in metamorphosis. Furthermore, female figures work much more by focusing on the achievement of the goal and on the global organization of work, often devoting less time to personal success.

Konrad and Kramer (2006), by investigating the effect on board dynamics of increasing female participation, found three contributions that women directors, differently from male ones, were able to make. They widen boards' discussions so that a greater number of stakeholders' concerns can be represented and considered. Women, in addition, can be more obstinate than men in answering complex questions mainly because, as stressed by a male CEO, men fell an obligation to act as they understand and know everything. The third contribution is, instead, related to the more collaborative approach to leadership that characterized women's style and that is responsible for the improvement in communication within board of directors and between the board and the management.

There is a general consensus in stating that the presence of women in company boards improves transparency and corporate governance practices and ensures a more appropriate and correct monitoring activity of managers' performances (Dezso and Ross 2012). Numerous studies have revealed how the increased percentage of female directors has contributed to the realization of the following effects:

- More correct functioning of the corporate administrative and control bodies (Adams and Ferreira 2009);
- Greater number of the board of directors' meetings with a lower rate of absenteeism for women (Fitzsimmons 2012) which, in turn, reduces that of men leading to more accurate decisions;
- More effective monitoring activity of managers' performances by the board of directors and the control bodies;
- Improved report quality and richer disclosure activities (Cerbioni and Parbonetti 2007);
- Better ability and attitude to identify the different needs of stakeholders;

Focusing on the lower rate of absenteeism, results regarding the measure of attendance behaviours have been found by Adams and Ferreira (2009). The authors suggested that women tend to behave differently than men, by experiencing lower attendance problems. Furthermore, the scholars have identified how this condition determines a direct consequence over male directors' conducts: the greater the portion of women on the board is, the better is the attendance behaviour of male managers.

The investigation of the effect of gender diversity on board-level governance characteristics and choices led, moreover, to examine CEO turnover. The evidence witnesses how independent boards are more likely to impose CEO turnover as a result of poor stock performance. Considering female directors as more independent and tougher monitors, has been confirmed how CEO turnover is more sensitive to stock return performance in companies characterized by a greater gender-diverse board.

Adams and Ferreira (2009), motivated by the desire to ensure that directors and CEOs act in the interests of the shareholders, have investigated the relation between gender diversity and equity-based compensation for directors and CEOs. The greater female participation is seen as responsible of relatively more equity-based compensation despite, a statistically relevant relation between gender diversity and the level and composition of CEO pay has not been found. The last result is totally consistent with another finding related to the women under-representation on compensation committees which justifies, therefore, their lesser involvement in the definition of CEO's remuneration. Indeed, despite female directors are more likely to be members of monitoring-related committees such as audit, nominating, and corporate governance commissions, they are less likely to sit on compensation committees than men executives.

1.3.1 HOW TO CAPTURE THE WOMEN'S CONTRIBUTION? THE CRITICAL MASS THEORY

To capture the value of women's contributions, it is necessary to introduce another strategic issue related to the correct number of women within the board called: the critical mass. Based on the theory of critical mass, women would be able to influence the functioning and decision-making process of the governance body and the corporate performance only when their number reaches a certain critical mass. This, according to authors such as Torchia, Calabrò and Huse (2011), is considered reached when in the council are present "at least three women".

The critical mass allows women to freely express their ideas, ensures that their voices are heard and considered in meetings, allows a better and more effective functioning of the council and reduces the effect of symbolism. The empirical evidence regarding the low representation of women in the boards has led some authors to argue that in many cases they are symbolic figures and that, in particular in larger companies, the appointment of women or the increase in their participation is often the simple strategic response of the social pressures caused by the various stakeholders (Pastore 2018). Companies exploit female involvement only to ensure the support of the stakeholders in the corporate activities and in the conceived strategic plan (Hillman, Shropshire & Cannella 2007).

The importance of a critical mass of women has been emphasized by recent results. A study carried out by Schwartz-ziv (2017) shows that companies with a board of directors composed of at least three same-sex counsellors, and in particular three women, record better performance and a higher probability of CEO's replacement in case of unsatisfactory performance. Furthermore, the presence of 3 females on boards has been valued as a cause of the more active behaviour of both males and females within the board.

The achievement of the critical mass is fundamental to realize the "real change" which will determine a scenario where women will no longer be seen as "female directors" experiencing feelings of isolation and marginalization but, instead, as mere directors.

The realization of such mass, moreover, can also generate a mutation of the traditional dynamics, by leading the original female directors to be more active. As stressed by Konrad and Kramer's (2006) research, the original female directors will be more relaxed, more willing to sustain their ideas and, generally, livelier as the number of women increases. The research, in addition, found that having three or more women on a board accelerates the adoption of an approach more conversational and less hierarchical and, as a result, helps all the directors to get better information.

Most studies on critical mass begin with Kanter's (1977a) work. She states that women, as minorities in male-dominated settings, have many difficulties to impact the organization until they can convert themselves into a significant minority. Above that point, they could originate organizational changes due to the increase in trust that the minority group can experience after its increase in size.

Konrad, Kramer and Erkut (2008) stress three reasons that explain why, under their perspective, the number of women involved makes a difference. First, multiple women allow to interrupt the stereotypes that characterize the scenario with only one or two women where they are not seen as individuals but, instead, as representative of all females. Second, the communication dynamics underlying an all-male setting can be changed only with the achievement of a critical mass. Finally, the different researches about the impact and conformity in group evoke the three as a sort of "perfect number" capable of generating favourable conditions for the realization of change.

The result and the direct consequence of what just mentioned is that if companies want to fully realize the contribution that women can lead to corporate governance the aim should be no just to increase the number of boards that include a woman, but to increase the number of women on boards.

Unfortunately, there is still a very long way to go and this is evidenced by the data referring to companies of Fortune 500. As stressed by Gatti (2018), twelve of the Fortune 500 companies do not even have a woman on the board. Only three have gender parity among their directors. Even companies that have female presences in the board of directors often do not have a gender balanced executive team. To produce lasting effects over time it is necessary to implement actions aimed at a cultural and structural change in the organization of work. Women in charge of top management positions, who have decision-making powers, should inspire and encourage the inclusion of other women in the renewal process of social organs, triggering a towing effect (Pastore 2018).

1.4. GENDER DIVERSITY EFFECT ON CSR: DEFINITION OF CORPORATE SOCIAL RESPONSIBILITY AND ITS VALUE

Several studies, as previously observed, have focused on analysing the positive effects that gender diversity can determine on the firms, by stressing what consequences it has on corporate economic and financial results. However, nowadays, firms are not only valued on the market by relying to such economic criterion; social and environmental outcomes have increasingly

become central and relevant. Therefore, currently, contemporary business must address economic prosperity and, at the same time, social equity and environmental integrity. Under this perspective, it is crucial to provide a definition of the concept of corporate social responsibility (CSR). The European Commission (2001) defined CSR as “a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis. Being socially responsible means not only fulfilling legal expectations, but also going beyond compliance”. CSR, as defined, involves a broad number of responsibilities that companies have towards their stakeholders, who comprise shareholders, employees, the local community, the government, customers, future generations and the environment.

Under stakeholder approach (Freeman, 1984), at the basis of CSR, firms appear as an integral part of the community in which they perform and, for this reason, they are expected to behave in such a way that they preserve the well-being of society and respect the environmental resources, strategic for the future of the community and of the planet (Benn and Kramar, 2011). Social responsibility is a concept extremely relevant for companies given its competitive implications and possible advantages in terms of cost savings, access to capital, risk management, ability to innovate and to manage customer relationships. Acting on such direction, firms can boast sustainable business models relying on the trust of their employees, costumers and citizens in general. The long-lasting trust, in addition, will be meaningful for the creation of a safe environment in which to invest and to continue growing (Setó-Pamies 2015). It is exactly for its strategic value that, the next section of the thesis will investigate whether women can act as an internal factor that drives CSR forward within organizations.

1.4.1. THE IMPACT OF WOMEN ON CSR

Numerous studies in the literature have tried to examine the relationship between the presence of women on boards of directors and CSR performance. Zhang, Zhu and Ding (2013) showed how women directors present specific psychological traits responsible of making them more concern to stakeholders’ claims. In particular, the authors state how women, compared to men, appear more affectionate, helpful, sensitive and concerned about caring for others. This greater attention towards the needs of others might, according to Nielsel and Huse’s thought (2010), boost women’s contribution in favour of strategic issues related to the firm and its stakeholders promoting, in this way, the corporate social responsibility. Under this perspective, has been

observed how the presence of women directors on the board affects directly corporate charitable in support of areas such as community services, arts, and cultural activities (Williams 2003). A research carried out over a sample of 143 firms on the Fortune 500 list over a three-year period has confirmed the previous result concerning the positive relation between the number of female directors on a corporate board and corporate social behaviours such as charitable actions, community involvement, and identification of employee benefits (Bernardi and Threadgill 2010).

Similarly, some studies have investigated, within CSR matter, the environmental dimension. Wehrmeyer and McNeil (2000) pointed out the greater women's attention to the exploitation of the environment as well as their more advanced protective attitude towards the planet: females appear to be more ecologically conscious and more prone than men to take measures to reduce the perceived environmental risks. Some evidence has been provided by Ciocirlan and Pettersson (2012) regard the assumption that firms with a greater females' presence exhibit a deeper concern for climate change. Despite subsequent researches have not confirmed such hypothesis, Galbreath (2010) points out that this conclusion might be justified by the critical mass theory: since the number of women on boards in the sample is very low, their ability to significantly affect climate change might be limited.

Other two significant sources that can provide the theoretical basis of how gender diversity impacts CSR are respectively: the resource dependence theory and the agency theory. Bear, Rahman and Post (2010), applying the resource dependence theory's view, conceive the organizations as parts of an open system which require to acquire and exchange resources in order to survive. In such scenario, differences of gender help to expand current board members' linkages being better able to get access to critical resources as legitimacy, consultation, and advice (Hillman and Dalziel, 2003). Diversity in general, and gender diversity in particular, will be therefore relevant to produce unique insights for management and, in this way, make better decision-making process.

The agency theory, on the other hand, stresses the importance of the board in the supervision of management on behalf of the shareholders. Such function, determining the board as the most meaningful internal control mechanism for safeguarding shareholder's interest, will be effectively exercised only if an appropriate mix of experience and capabilities are involved. (Hillman and Dalziel 2003). To better evaluate management, business strategies, and their impact of CSR will be strategic, therefore, the presence of a board diversity which, in turn, will increase board independence.

Setó-Pamies's evidence (2013) also suggests that, when the number of women on the board increases, firms perform with greater social responsibility. The author has justified such result by observing how the greater presence of women improves relations with stakeholders, increases accountability, encourages more ethical behaviours and more attention to environmental issues. Table 3 shows the main results of the multiple regression analysis carried out by Setó-Pamies (2013). The dependent variable is the CSR and the independent ones are the percentage of women, firm size, profit, sector and country of origin. The main result shown in the table concerns the variable "percentage of women on the board of directors" that has a positive and significant effect on CSR at 5% level. Along with this, another dimension positively correlated is the ROE also significant at 5% level.

Table 3: Results of the regression model

	N = 94		
	R ² = 0,527		
	Coef.	t	Sig.
% women directors	0.356*	2.234	0.029
ROE	0.207*	1.954	0.055
Ln Total Assets	-0.119	-1.026	0.309
SECT A	-0.194	-1.779	0.080
SECT B	0.048	0.365	0.716
SECT C	0.040	0.269	0.789
SECT D	-0.065	-0.492	0.625
Australia	-0.057	-0.511	0.611
Belgium	0.237*	2.455	0.017
Brazil	-0.088	-0.895	0.374
Britain	-0.146	-1.254	0.214
Canada	-0.208	-1.851	0.069
Denmark	0.229*	2.275	0.026
Finland	0.120	1.219	0.227
France	0.110	1.069	0.289
Germany	-0.090	-0.946	0.348
Hong Kong	-0.187*	-2.046	0.045
India	0.046	0.447	0.656
Italy	-0.034	-0.366	0.716
Japan	0.123	0.794	0.430
Netherlands	0.040	0.424	0.673
Norway	-0.001	-0.008	0.994
Singapore	-0.233*	-2.346	0.022
South Africa	0.013	0.146	0.885
South Korea	-0.105	-1.121	0.266
Spain	-0.085	-0.864	0.391
Sweden	-0.204*	-2.026	0.047
Switzerland	-0.080	-0.708	0.482

Source: Setó-Pamies, D., 2015. The relationship between women directors and corporate social responsibility. *Corporate Social Responsibility and Environmental Management*, p. 341

To conclude, all the previously cited results can be confirmed if the Fortunes' 'Best companies to work for' and Ethisphere's 'Most Ethical Companies' list are monitored. Indeed, Bernardi et

al. (2009) have found that boards of directors with a higher percentage of women are more likely to appear on the mentioned lists.

1.4.2 THE DISTINCTIVE TRAITS OF WOMEN'S LEADERSHIP

As mentioned in the previous paragraph, female figures are distinguished from those of men by distinctive attitudes and values that are strategic in the achievement of corporate goals. Regarding to the connection between the presence of women in the board of directors and the quality of corporate governance, the next section aims to investigate and analyse the gender differences in terms of ethical behaviours. Do women adopt more ethical patterns in performing their business activities? Is there a significant gender difference in ethical decision-making process?

1.4.2.1 GENDER DIFFERENCE: FOCUS ON ETHICAL BEHAVIOURS

Explanations for increased societal focus on ethics in organizations are various. Among them, insider trading on Wall Street; corruption scandals, involving both private and public sectors; and the resignation of over 100 Reagan administration officials, are just some of those that can be mentioned. The purpose of this section is to investigate whether there is a relation and a significant gender difference in terms of ethical business practices and decision-making process performed by women and men.

To begin with this topic, it is useful to mention the case of a Norwegian company that had been embroiled in a critical corruption scandal and that testifies the gender diversity's positive effect on governance. The company, which was involved in the payment of bribes to get contracts, presented a board of directors totally indifferent and unconcerned about that matter. Next to these figures, however, there were 3 female independent directors who demanded for transparency and actions and who were fundamental in determining the resignation of the male CEO from that company (Dhir 2015).

Another central example concerns the US company Enron. It is interesting to note that two women, Sherron Watkins and Maureen Castenada, played a crucial role in denouncing improper behaviours such as the destruction of documents or in alerting top management about the serious financial problems that were looming over the company (Kreitner and Kinicki 2013). Can these two examples allow the conclusion that women are more likely to report misconduct and make ethical decisions by virtue of their moral principles different from those of men?

Kreitner and Kinicki (2013) have stressed how the point of view of men and women with respect to moral problems is different. The famous psychologist Carol Gilligan (1982) suggested that men and women are distinguished by a different perception of moral problems: men adopt the perspective of justice, while women refer to the perspective of care. Therefore, whereas women treat moral issues as problems of care involving empathy and compassion, men face them as problems of rights. Some studies, focused on the relation of gender to work, found that females are more oriented towards the help of other people, whereas males are more concerned in income and advancement (Betz and O'Connell, 1987). Other researches, instead, observed and analysed how men and women in projecting their business careers are characterized by different values and work-related interests (Keys, 1985; Statham, 1987).

The gender difference in values and work interests can be clarified by relying to two different approaches: the structural approach and the gender socialization one. According to the first one, the gender differences related to the early socialization and the various role requirements (e.g., wife, mother) will be prevaricated and dominated by the rewards and costs of the occupational role: that is, similar occupational roles and conditions lead to a decrease of gender differences.

The gender socialization approach, conversely, argues that men and women will react to the same group of occupational rewards and costs differently due to their diverse values and traits. Indeed, each gender will bring specific and definite set of values and ideals to their work role which, in turn, will define differently their work-related practices, behaviours, and decisions. Supporters of this theory, by relying on the general idea that men will emphasize the signs of success such as money and advancement, state that they are less willing to be ethical and, instead, more likely to work long hours and break rules in order to win the game and realize their achievement. Contrarywise, women, who emphasize relationship and intrinsic satisfaction, give less emphasis on competitive success and promote pleasant relationships and correctness in the tasks to be performed. Therefore, females are expected to work fewer hours, not concentrate themselves towards signs of competitive success and comply with the rules and laws. The direct consequence of these different values and distinctive features is that, under “gender socialization approach”, men and women within the same occupation can present differences in performing unethical behaviours. At the opposite, the structural approach suggests that the sexes will have the same propensity to be unethical when the same occupation is considered (Betz, O'Connell & Shepard 1989).

Shifting the focus of the analysis to gender differences in terms of ethical decision-making, Kelman and Hamilton's work (1989) is crucial in identifying the definition of ethical decision. This is a decision that appears as both legal and morally acceptable to the larger society. At the

opposite, an unethical decision is either illegal or morally unacceptable to the community. The social role theory investigated the gender difference in perceptions of ethical business practices. The results, found by analysing 66 samples associated to more than 20000 respondents, suggested the existence of a relevant gender difference but, which declines with the increase in work experience; the differences in perceptions of ethical business practices were smaller when the focus was on samples with greater work experience.

Franke, Crown and Spake's work (1997), furthermore, revealed that such differences were smaller for practices such as conflict of interest and collusion which are characterized by a high social consensus, probability of effect and temporal immediacy. At the opposite, for behaviours such as the rule breaking or insider information which might be identified as having fewer consequences (many rules may be perceived as irrelevant or arbitrary) the gender difference seemed to be higher. In line with this perspective, Jones (1991) stated that the characteristics of the practice taken into consideration affect ethical decision-making and that, as argued by the author (p. 191): "the relative importance of personal factors and situational factors might vary considerably, from issue to issue." Therefore, differences in ethical perceptions between women and men might differ according to the nature of the business practice object of evaluation. Six factors within Jones's model (1991) have been identified to define the moral intensity of moral issues:

- Proximity: referred to the closeness (social, cultural, psychological, or physical) that individuals feel for those involved in or affected by an act;
- Magnitude of the consequences;
- Social consensus about the morality of the practice;
- Probability that the action will generate harm;
- Temporal immediacy of possible consequences;
- Concentration of effect (more concentration whenever a great harm is caused to a few people than when a slight harm is generated to many people).

Researches by Betz, O'Connell and Shepard (1989), within the scope of social role theory, stressed the higher emphasis at early career stages that men showed towards signs of success such as money and power. In line with the perspective that indicates men as more agentic and assertive than women on average, gender differences can be influenced by the involvement of money generated by the doubtful practice and by the realization of the behaviour through an action (e.g., insider trading) or inaction (e.g., not reporting a co-worker's insider trading).

In conclusion, as suggested by Franke, Crown and Spake (1997), it is important also to recognize the strength of the gender similarities in ethical perceptions and how in many occasions, both men and women espouse the same line of moral reasoning. Tong (1993, pp. 3-4) states that:” If we conceive of women's [and men's] ethics as some sort of unitary moral point of view to which all and only women [or men] must necessarily subscribe, then this approach to ethics is doomed”.

CHAPTER 2

ORGANIZED CRIME AND ITS EFFECTS ON THE SOCIO-ECONOMIC ENVIRONMENT

2.1 DEFINITIONS OF ORGANIZED CRIME

The topic of organized crime has always been the subject of debates and controversies, especially originating from the lack of conformity among countries and people about the main underlying aspects. Despite such difficulties and due to the cross-border importance that this matter has gained, the need of a clear and unambiguous common definition of organized crime will be strategic.

As stated by Beare (1996, p. 19): “The essential characteristic of the term organized crime is that it denotes a process or method of committing crimes, not a distinct type of crime itself, nor even a distinct type of criminal”. From such statement, therefore, it is evident that a correct definition of organized crime should reflect the key elements of a "process" accomplished by specific criminals carrying out criminal activities, more and more within the transnational area.

In the following will be proposed some definitions, corresponding to different aims (research, law enforcement) and stressing different elements of organized crime.

Donald Cressey (1969, p. 319) elaborated a definition that was used for many decades by the Federal Bureau of Investigation (FBI): “An organized crime is any crime committed by a person occupying, in an established division of labour, a position designed for the commission of crimes providing that such division of labour includes at least one position for the corrupter, one position for a corruptee, and one position for an enforcer”. In 1970 the U.S. Department of Justice, instead, described the phenomenon as the ensemble of: “all illegal activities engaged in by members of criminal syndicates operative throughout the United States and all illegal activities engaged in by known associates and confederates of such members”.

In Germany, despite the so-called “Organised Crime Law” of 1992 denied any definition of the term “organised crime”, the German Bundeskriminalamt (BKA, the Federal Bureau of Investigation) described the issue as follows: “organised crime is the planned commission of criminal offences, determined by the pursuit of profit and power, which individually or as a

whole, are of considerable importance, whenever more than two persons involved collaborate for a prolonged or indefinite period of time, each with own appointed tasks:

- by using commercial or business-like structures, or
- by using violence or other means suitable for intimidation, or
- by exerting influence on politics, the media, public administration, judicial authorities or the economy”².

Finally, other tools relevant in providing a definition of organized crime are the Criteria (both Mandatory and Optional) established by the European Commission (1997) and, after, adjusted by the Expert Group on Organised Crime of the Council of Europe. In particular, the mandatory criteria relate to:

1. The cooperation of three or more people;
2. The protracted and indefinite period of time involved;
3. The suspicion or conviction for committing serious criminal crimes;
4. The final purpose of realizing profit and/or power;

For what concern the optional criteria, instead, these are:

5. The presence of an assigned task or role for each participant;
6. The reliance on an internal discipline and system of control;
7. The use of violence or other forms to intimidate;
8. The impact on politics, public administration, law enforcement, the administration of justice or the economy in general through corruption or any other form;
9. The presence of commercial or business-like structures;
10. The engagement in money laundering;
11. The action on an international level.

All the previous definitions tend to remark and converge on some fundamental aspects able to characterize and distinguish the matter in question from other forms of criminal behaviour. The presence of elements such as corruption, violence, ongoing criminal activity, and the primacy of the group over any single member is crucial in identifying and recognizing organized crime. The permanency of organized criminal groups, moreover, is totally unrelated and independent from the presence of any single individual: the group continues to exist over time irrespective to the mortality of its members (Adamoli et al. 1998).

² Situation report Organized Crime in the Federal Republic of Germany in 2001, BKA, URL: http://www.bka.de/lageberichte/ok/2001kf/bulabi_2001_abridged_version.pdf [10/10/19]

Another strategic feature which helps the identification of this issue is connected to the involvement of non-ideological groups: the participants do not evoke a political ideology and their interest in government is only related to its nullification through actions such as bribery or corruption. For this reason, international terrorist organizations would not be classified as a form of organized crime, despite, as stressed by Maltz (1994), the clarity of such distinction is becoming increasingly ambiguous overtime. This is the result of the growing collaboration between criminal and terrorist organizations, and due to the progressive engagement of terrorists in crimes to finance their activities.

The organized crime issue, both at national and international level, has been affected by two important changes which will be responsible of a substantial effect on law enforcement: the operational range of activities carried out by organized criminal groups it has expanded and, the previous underlying competition between different groups has been partially substituted by the willingness to collaborate (Beare 1996).

Scholars and investigators, considering all the aspects mentioned and the basic concept of treating and focusing on organised crime as a process and not on the people who are involved in it, could widen their knowledge of the range involved and overcome the unconscious stereotype still rooted in it.

2.2 THE ORGANIZED CRIME IN ITALY: THE MAFIA-TYPE STRUCTURE

The Italian organized crime framework, known under various definitions, is complex and quite articulated. The official reports of the Parliamentary Antimafia Commission (PAC), established in 1962 (Pinotti, 2015b), appear to be the main source of material and information over this topic in Italy.

Although the term Mafia has often been used as a synonym for organized crime, it appears to be an extremely specific and singular phenomenon. For this reason, not all criminal organizations can be considered mafia ones. As stated by Paoli (2002), mafia organizations, like other criminal groups, aim to realize economic gains through the trade of illegal goods and services, but do not focus solely on this economic dimension. Indeed, they pursue an equally important purpose connected with the acquisition of territorial control, thanks to which they can exert political and economic influence on the underlying society.

Generally, the term Mafia is used to denote indistinctly criminal organizations of a certain relevance. In particular: «*Cosa nostra*» in Sicily; the "*Camorra*" with its focus and epicentre in Campania; the "*Ndrangheta*" operating in Calabria; and finally the "*Sacra corona unita*" in Puglia: all these, according to Falcone and Padovani's statement (1991), can be identified as mafia or mafia-type organisations due to the involvement of methods such as violence and intimidation, that are responsible of producing among the population a general status of "omertà".

The greater attention, when the focus is on the term "*Mafia*", is usually given to the two largest and most stable criminal organisations (each composed of about 100 mafia groups): *Cosa Nostra* in Sicily and the *'Ndrangheta* in Calabria. Both, due to the presence of an internal specific hierarchical structure, show the distinctive trait of organisations (Weber 1978, p. 48): "independent government bodies that regulate the internal life of each associated family and that are clearly different from the authority structure of their members' biological families". The entry into mafia group will mark a turning point in the life of the individual, who with the initiation ritual will officially become a *man of honour*, committing himself to guarantee total silence in terms of strategies, composition and actions carried out by his group.

Among group members a brotherhood relation is created, based on the principle of mutual reciprocity: everyone helps the other, resorting to any measure, even crime (Paoli 2014).

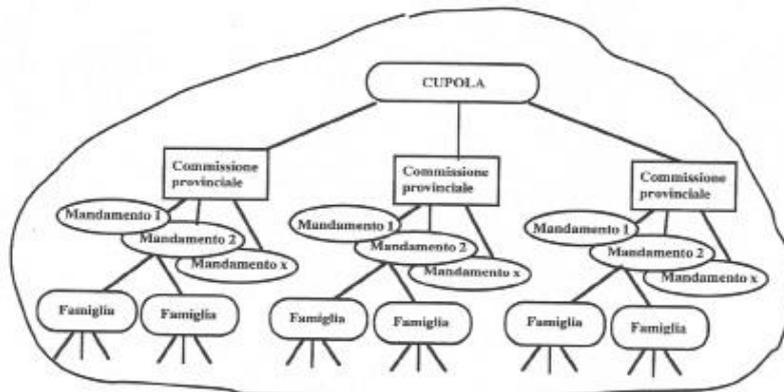
Focusing on Mafia-type structure and highlighting the *Cosa Nostra* case, it is possible to emphasize its strict, vertically integrated, hierarchical structure, responsible of the development of a stringent discipline and efficiency within these groups.

Cosa Nostra, in all its organizational specificities, appears to be the most dangerous of criminal organizations. This is not the only result of the greater number of participating members, but it is also the consequence of the singular implementation of unitary action strategies.

As stated by Catino (1997), the unity of the organization does not correspond with its uniqueness. Indeed, it is possible to identify several mafia-clan families each one that presides over portions of the territory and that are organized according to a pyramidal, hierarchical model associated with a high verticalization and division of powers. The typical structure sees the presence of a representative, who is the head of the family and represents it towards *Cosa Nostra*, below him there are the *capidecina* and finally *the men of honour*. Such description shows a strong division of labour: as for "Taylorism", the decisional activities and the execution ones are carried out by different people. The logic applied is the one where the *representative* decides, the *capodecina* requires execution and the *man of honour* performs.

From the following figure (Figure 3), representing the typical Cosa Nostra structure, it is clear how this is not a question of a single organization with a single head but of multiple organizations - «nodes» - organized internally in a substantially similar way and coordinated by a kind of strategic agency the so-called “*cupola*”.

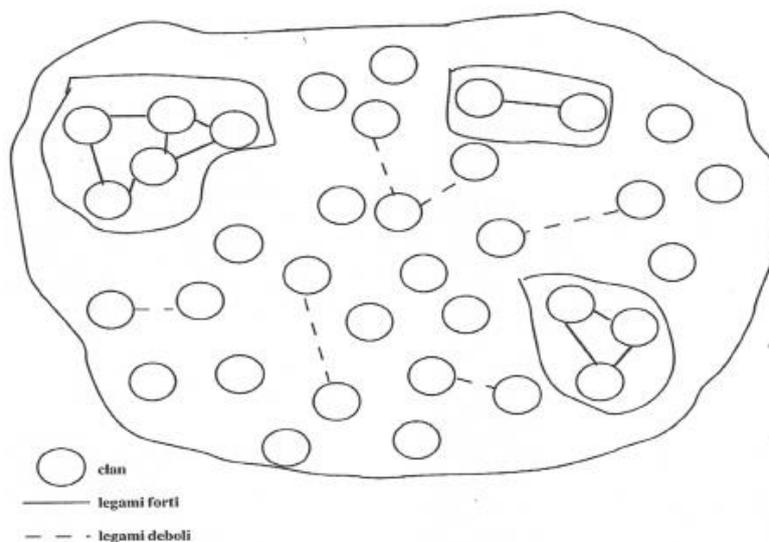
Figure 3: The typical Cosa Nostra structure



Source: Catino, M., 1997. *La Mafia come fenomeno organizzativo*, p. 90

This typical construction differs from the one associated with other organized crime groups: *Camorra* in Campania is, for instance, structured by many independent groups of families competing to ensure the government of the territory and the control over the economic activities performed in it (Catino, 1997). Since *Camorra* does not present higher levels of coordination and government, it is structurally unable to resolve conflicts among different families and to move from competition-conflict logic to integration and cooperation perspectives. In this scenario of inevitable precarious balance, alliances between clans, non-belligerent pacts and coexistence of different families within the same territory are possible (Figure 4).

Figure 4: The typical Camorra structure



Source: Catino, M., 1997. *La Mafia come fenomeno organizzativo*, p. 85

The main feature of *Camorra*, therefore, is its fragmentation into a multitude of clans. This aspect may be seen both as a point of weakness and as a strength: weakness because of the high rate of violence and conflicts within the *Camorra* criminal system due to the constant struggle among different clans, and as a strength because of the relevant difficulty faced to attack the entire organization, divided into multiple families. Indeed, the repression of a clan by the police, automatically creates a new territory and new business opportunities for the adjacent clans, generating an effect of composition that promotes innovation and system change and renewal. The outlined organizational differences between *Cosa Nostra* and *Camorra*, will be fundamental also in the recognition and identification of the specific criminal actions performed by the same: the criminal organizations are involved in performing three large groups of activities.

Firstly, it is possible to cite the organization primary activities, which are acquisition activities for profit purposes and the main aim of today criminal organization; organization regulation, coordination and control activities; and finally, the organization relationship activities with the outside world and other institutions.

Regarding the regulation, coordination and control activities, for example, the absence within *Camorra* of a central mechanism of governance, able to coordinate the various operational units (the *Camorra* clans), will hinder the management and resolution of conflicts among clans in a non-violent way. At the same time, also the relationship activities with the outside world are strongly affected by the organizational model adopted: the rarefied structure of *Camorra* has

always prevented the possibility to identify unitary strategies and common enemies of the entire criminal organization. The rival clan will remain always the main enemy.

Conversely *Cosa Nostra*, as a result of its vertically integrated structure and, therefore, its possibility to unify the interests, can identify its main rival outside the criminal system (Catino 1997). It perceives the State and, generally, that part of the State or civil society that makes no compromises with it (magistrates, politicians, administrators, etc.), as the main opponent to defeat.

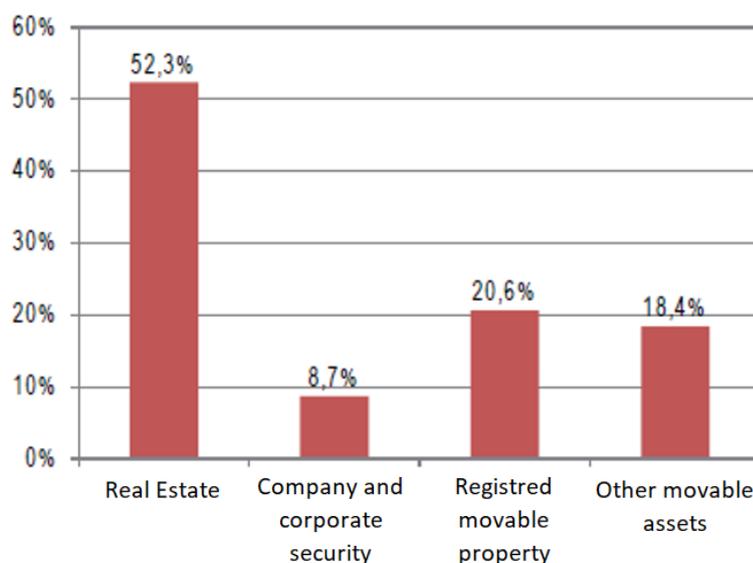
2.3 THE INVESTMENT PORTFOLIO OF ITALIAN ORGANIZATIONS CRIMINAL GROUPS

Since 1983 the judiciary has observed an increasing of data and useful information in terms of investment strategies pursued by criminal organizations. This richness has allowed it to increase, especially in the decade 1990-1999, the number of assets confiscated from criminal groups. In this setting a crucial strategy in the identification process of organised crime has been represented by the analysis of financial statements, using financial and economic measures.

Transcrime (2013 b), starting from an analysis of all the confiscated assets, has elaborated a classification of the investment policies performed by criminal members: these involve real estates (houses, villas, and other immovable properties), companies or corporate securities, registered movables (such as vehicles) and various movable assets.

The investment in real estate appeared as the preferred choice (52.3%) of organizations criminal groups (OCGs) followed by registered movables property (20.6%), other movable assets (18.4%) and, lastly, by companies and corporate securities (8.7%) (Figure 5).

Figure 5: The classification of investment strategies



Source: Adapted by Transcrime, 2013b. Progetto PON Sicurezza 2007- 2013: Gli investimenti delle mafie, p. 99.

Real estate properties represent a safe investment due to the associated market volatility, which still appears to be significantly lower in comparison to the one of the stock markets. Moreover, the attractiveness of this investment can be explained by its possible function of facilitating illicit activities; real estates may serve as an operational and logistic base in which to stock illicit products (such as drugs or counterfeit goods), to synthesise and cultivate different drugs or, for instance, to exploit prostitution.

The acquisition of these assets can be made for personal use (e.g. homes, vacation residences), ensuring a double benefit: an economic and social return. The control of the territory, on one hand, and the social prestige, on the other, can drive OCGs to buy villas or luxury buildings especially in localities already characterised by a relevant presence of criminal clans (Transcrime, 2013a).

Concerning the investment strategy focused on companies and corporate securities, instead, it can mainly be justified by strategic and functional motivations related to obscure criminal actions. Companies, differently from other assets such as real estate, machineries or other movable properties, appear as the better vehicle to hide and launder the illegal money coming from mafia illicit markets. The focus on businesses facilitates the coverage process of those revenues deriving from other illegal activities that, otherwise, would not find a plausible explanation; the OCGs can exploit the use of false or altered invoices and different typologies of documental falsification for pursuing the above-mentioned objective.

As stated by Transcrime (2013, b), this investment could be strategic both for the illicit incoming flows and for the outgoing ones. Indeed, as previously observed, the companies can be used for investing those monetary sources gained by mafia groups performing illegal activities such as drug or arms trafficking, extortion or prostitution. The same can also be used as a vehicle to transfer illegal money and pay the OCGs members: they could be hired as employees and through the salaries they can get monetary resources or, in addition, criminal groups may achieve the same results exploiting the power of trade credits.

Finally, another advantage of investing in companies and corporate securities is related to the level of diversification potentially achievable. Considering the case of a capital that has been fragmented and invested in different firms, it is evident that the risk of its entire confiscation is clearly minimized due to the lower exposure to law enforcement activity.

After a general description of the criminal organizations' investment portfolio, the master's thesis will describe the Italian scenario and the differences in terms of investment strategy adopted between areas with traditional mafia presence and other Italian regions.

The Italian regions, despite do not present a homogeneous distribution of Mafia investments, continue to highlight a clear path in favour of territories known for their mafia tradition such as Sicily (39.1%), Campania (14.5%), Calabria (13%) and Puglia (10.7%).

However, in recent years the issue of mafia involvement in non-traditional areas has attracted much attention: the north-west regions, with Lombardy and Piedmont in the forefront, together with Lazio, testify the progressive expansion of the economic interests towards the northern and central areas of the peninsula. Does this expansion bring out differences in terms of investment strategy pursued between areas with traditional mafia presence and other Italian regions?

As stressed by Transcrime (2013, b), southern regions (excluding Puglia) show a clear predominance of real estate investments, whereas northern areas such as Piedmont reveal in such field a much lower presence. The investment alternative focused on companies and corporate securities, instead, appears as the preferred selection in Campania, Lombardy and Lazio (around the 10%) while for what concern the registered movable assets the larger concentration has been recorded in Piedmont. Finally, criminal organizations have mainly invested in other movable property (e.g. jewels) in the regions of Lazio and Lombardy.

2.3.1 THE INCREASING RELEVANCE OF NON-TRADITIONAL MAFIA AREAS

The literature testified the greater vulnerability of southern Italy to mafia penetration in the legitimate businesses. Numerous authors (e.g. Transcrime 2013a; Riccardi 2014) revealed that territories with a traditional mafia permanence, a lower exposure to international investments, a limited progress in R&D and a high incidence of tax evasion are much sensible to Mafia investments. Indeed, the preference, in many cases, occurred towards areas already controlled by OCGs or characterized by a higher level of weakness and underdevelopment of their socio-economic settings (Polo 2011). Despite a general consensus was achieved in terms of a predominance towards the underdeveloped economies, many controversies remained about the interpretation of the latter as a cause or a consequence of Mafia infiltration; Pinotti (2015) about this issue states that the causal relationship is not one-way.

Recent studies, however, have analysed the progressive mafia expansion also in non-traditional areas that determines, therefore, an increasing need of law enforcement policies. This is, according to Cusin's thought (2015), the result of its established relationships with the external world, that have allowed it to join the sphere of illegal economy with the legal one.

By focusing on Catanzaro's statement (1985) the danger deriving from the work of mafia organizations is perceptible; the author has explained that it is a mistake to consider the mafia group as a special group and, instead, it is opportune to see it as a sub-system capable of infiltrating itself into the different nerve-centres of the country.

The mafia interest towards non-traditional areas of Northern and Central Italy can find the following justifications: on one side, it appears the response to the new business opportunities offered, for instance, from the large-scale public constructions charactering the regions of Piedmont, Emilia Romagna or Lombardy and, on the other, it seems to be the consequence of the greater possibilities to penetrate the specific political and socio-economic environment, also exploiting the strategy of "joint ventures" with territorial criminal organizations or counting on the sustenance of local businessmen (Savona and Riccardi 2015).

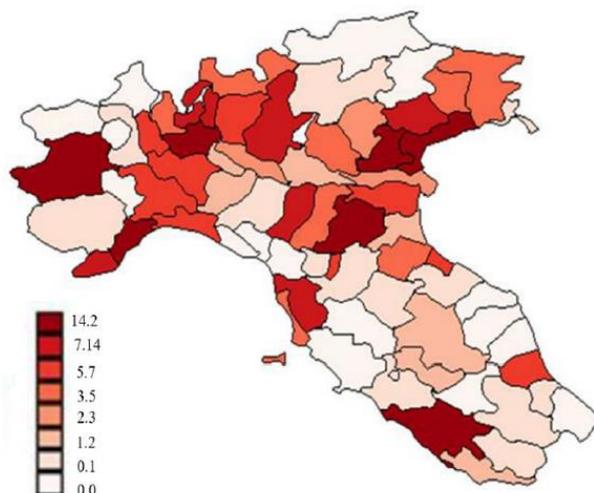
Also, the history and the policies measures applied to contrast this phenomenon have been crucial in determining the growing importance of non-traditional areas. The migration occurred during the '60s in favour of industrialized locations of northern Italy and the implementation of

the so-called “*Confino*” policy, which required the transfer into other geographical areas of those suspected of being members of criminal groups, have fuelled the expansion towards other nerve-centres of the country (Buonanno and Pazzona 2014). The authors have remarked that the implementation of “*Confino*” policy, instead of countering the creation and maintenance of connections between criminal organizations, has caused the spread of the mafia phenomenon even in areas not previously affected.

The literature has stressed the progressive populating of smaller and peripheral territories due to their specific characteristics such as the weaker oversight of law enforcement officials, the marginal attention shown by the press at national level and the ability to more easily engage with the local administration. These are, according to Dalla Chiesa’s statement (2017), ideal requirements to support the evolution of the phenomenon in question. To confirm such declaration, it is possible to mention the names of some municipalities in northern Italy which at most reach 50000 inhabitants where many confiscations of goods have taken place: Brallo di Pregola (PV), Perinaldo (Im), Ameno (No), Montalenghe (To). The focus on small municipalities will be, therefore, a crucial point in the representation of the *modus operandi* of criminal organizations; the knowledge of this aspect will be strategic also in effectively designing the law enforcement actions and policies. Dalla Chiesa (2017) states that this centrality of peripheral and smaller areas should, on one side, direct local administrations not to focus solely on urbanization charges to satisfy the social needs of citizens and, on the other, to strengthen as much as possible the territory control activity.

Analysing the distribution of criminal businesses in the Central and Northern regions of Italy (Figure 6) it is evident how, despite the infiltration process is increasingly articulated and capillary, involving also minor municipalities, the criminal organizations are mainly active in four specific areas: 1) western Lombardy; 2) the province of Turin; 3) western Liguria; 4) central Emilia.

Figure 6: Criminal organizations distribution in the Central and Northern-Italy



Source: Fabrizio, M., Malaspina, P., & Parbonetti, A., 2017. *Caratteristiche e modalità di gestione delle aziende criminali*, p. 52.

Differently from the Mafia areas of origin, as suggested by Smuraglia (2015), the widespread in non-traditional areas is not completely expressed with a territorial control. Features such as the resistance generated by an overall healthy socio-economic environment, the rejection of the traditional mafia method by most of the society, the presence of a general democratic tissue that appears as less permeable in comparison to the traditional areas are fundamental characteristics able to prevent the imitation of the distinctive environmental conditions characterizing the criminal groups areas of origin.

However, despite these factors could represent elements of comfort, these are not totally reassuring. Indeed, conditions that could lead to a progressive closeness to this form of territorial control are increasingly creating: the growth of settlements more structured and robust, the development of a more refined criminal organization's structure and the increase of connections inside and outside the specific area are just a few factors increasingly present, for instance, in the areas of Turin, in the Milan-Como-Varese triangle, in Emilia (especially in Bologna, Budrio, Modena).

Regarding the relationships between various mafia-type organizations operating in non-traditional areas, clear associations have emerged between criminal organizations in Piedmont, Liguria and Lombardy, especially in relation to drug trafficking and arms trafficking. Moreover, as confirmed by the case of the Milanese car fleet, additional connections have involved the criminal organizations operating in Lombardy, Tuscany and Emilia Romagna.

The existing contacts often determine, not only problems for the control and for the actions of law enforcement officials but also – once arrived in front of the Judiciary-, competence

problems, not always easily solved. Finally, for what concern the relationships between mafia-type associations operating in the same areas, it has been found that in most cases the so-called “pax mafia” is established, probably determined by the wealth of the illegal markets, in which, at present - there seems to be a place for everyone. And, therefore, there is a preference to keep the situation relatively quiet, trying to divide the spaces more by areas of interest than by geographic environment. Of course, there could be cases in which the pax mafia breaks (e.g. due to market saturation or, as a result of interventions by the police) and mafia wars and conflicts could originate. However, these episodes are much more unusual compared to the situation typical of traditional areas and, in any case, less bloody (Smuraglia 2015).

2.4 THE PENETRATION OF LEGAL ECONOMY

Italian mafia groups, as well as other foreign organizations criminal groups (OCGs), have entered the legitimate economy, and legal businesses, investing their capital in a wide range of assets. This, according to the interpretation of authors such as Fijnaut and Paoli (2004), is the result of the economic and cultural changes typical of the 1950s and 1960s. Such scenario has fuelled the entrepreneurial transformation which has increasingly led Italian mafias to entry into the economic sphere. Indeed, the infiltration of legal business covers a strategic role in the Italian mafia scenario, where progressively the organized criminal groups are turning into “entrepreneurial criminal organisations” (Arlacchi 2007). It is increasingly evident how OCGs, beside to not differentiate between illicit and legitimate economies, perceive them as a *continuum* from which to exploit any opportunity in terms of profit and control of the territory. As stressed by different authors, the motivations at the basis of their penetration into legal economy can be synthetize as follow:

- The desire to rely on a new source of profits and control of the territory in addition to traditional criminal activities (Arlacchi 2007);
- The necessity to possess others means of laundering (in addition to the spread real estate properties) for facing the surplus associated with 1980s drug-trafficking activity (Riccardi and Savona 2011);
- The exploitation of legal businesses as facades for hiding underlying illegal activities. Examples are the illicit waste removal, counterfeiting, or the trade of stolen and altered goods.
- The possibility of benefiting from the political and socio-economic setting in which the legal business is placed, and to exploit the connections with the local administration that this ensures (Sciarrone 2009).

All of them clarify the increase of OCG accumulated capital in the legal economy and require answering at a subsequent question: which are the main business sectors involved in this infiltration process?

Focusing on the preferred sectors of infiltration of organised crime groups (OCGs), Transcrime (2013) revealed how, in Italy, these are construction, wholesale and retail trade, hotels, bars and restaurants. Alongside the traditional businesses, other researches have stressed the growing importance gained by sectors such as renewable energy, and gas and petrol supply (Savona and Riccardi 2015). Moreover, the authors have found an expansion of the scope of action which does not remain anchored to the Mafia regions of origin, but conversely, it extends to other regions, as well as to other European and extra-European countries.

Before going into detail about the main sectors involved, it is useful to analyse the main drivers that the literature has considered the most impacting on the choice of the sector and territory to infiltrate.

2.4.1 THE MAIN BUSINESS SECTORS

The selection of business sectors to infiltrate can be explained by the presence of five main drivers identified by the literature. Despite not all drivers appear unavoidably at the same time and, one could succeed over the others, their presence results to be strategic in explaining the different OCGs choices.

The economic profit, and particularly the desire to maximize them and realize significant earnings, appears to be the first driver able to affect the selection of a certain sector.

Businesses associated with low levels of technological innovation and professional expertise required are favoured, due to their capacity of realizing profits and, at the same time, keeping costs of research and development relatively controlled. The same rationale is at the basis of the preference towards sectors characterized by a high presence of public subsidies such as the renewable energy or, towards industries where both the internal competition, and the attractiveness of foreign investments, are low (Transcrime 2013).

Sectors with weak and developing regulation systems such as the ones of slot machine or renewable energy and territories characterized by a great presence of tax evasion, instead, are considered attractive when the purpose of OCGs is to obscure criminal activities or to hide the illicit origin of capitals (Transcrime 2013b).

An additional driver is related to the OCGs desire of obtaining social consensus from the local population. Particularly, to intensify the support from the community, the organizations can opt

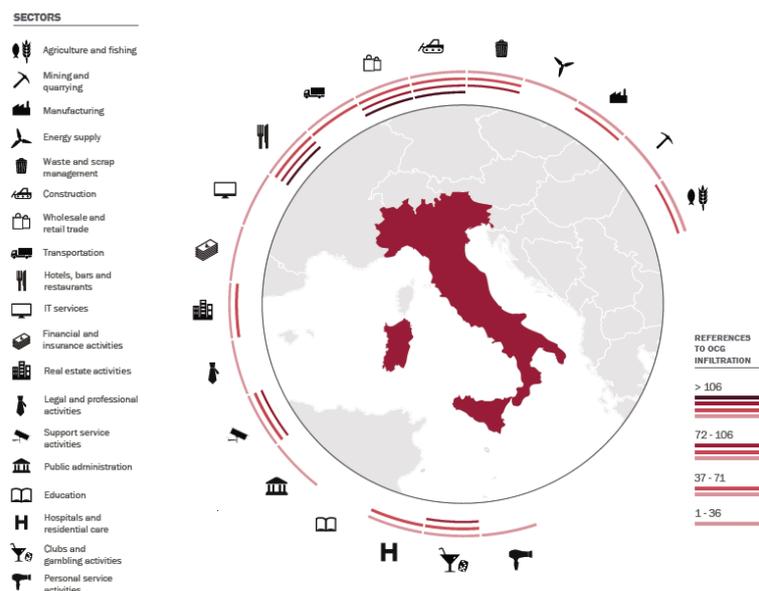
for entry into strategic sectors such as the health care and education one. Sciarrone (2009), in addition, suggests that the choice may reflect the willingness to operate into sectors characterized by a strong territorial specificity, so that new jobs can be created and a respectable image of themselves can be spread into the local society.

The penetration into sectors such as hotels and restaurants, gas and water supply and construction, all known for their distinctive territorial specificity, can be explained by the OCGs willingness to enlarge the physical control over their territory of influence and, at the same time, to activate strategic connections with the local government and politicians. Finally, the infiltration in specific legitimate businesses may be the simple result of cultural and personal motivations that lead to choose a sector and/or a territory close to cultural and familiar traditions and backgrounds (Riccardi 2014).

Above all, generally, the commission of other illicit activities may be the driven factor that explains the choice of a specific sector: for example, for facilitating the trafficking of illicit goods, the transportation sector could reveal an appropriate strategy, or the money transfer business (MTB) could be the correct selection when the transfer of illicit funds is involved (Savona and Riccardi 2015).

In line with the analysis of the previous five drivers, numerous authors (e.g. Savona and Riccardi 2015; Transcrime 2013) have defined as highly infiltrated sectors the ones of construction, wholesale and retail trade, hotels, bars and restaurants (Figure 7).

Figure 7: The OCG infiltration by business sector



Source: Savona, E., & Berlusconi, G., 2015. Organized Crime Infiltration of Legitimate Businesses in Europe: A Pilot Project in Five European Countries, p. 41

The figure shows how the construction sector is a traditional business, subject to criminal infiltration. The reasons that justify this statement are related to its specific characteristics such as the low levels of technology involved, the high degree of territorial specificity, the importance of human resources, the great reliance on public funds and the high incidence on the procurement process. In this sector a relevant importance is assumed by public construction, where, especially in the public procurement area, OCGs can exploit their competences and, through corruption and intimidation, infiltrate the political and administrative domain (Savona 2010). The preference of such sector is also related to its connections with other business activities that ensure and guarantee to OCGs the possibility to exercise a close control and monitoring of the entire territory; construction companies, indeed, are essential for the creation of other economic activities (e.g. the construction of a supermarket), allowing a capillary penetration within the entire area.

The wholesale and retail trade sectors are another crucial target by both Italian and foreign OCGs, whose importance is also associated with the breadth of this industry which counts the largest number of registered companies in Europe. The presence of an extensive set of subsectors that can be useful for the performance of various illegal activities and for the fulfilling of purposes such as the concealment of criminal behaviours and money laundering is at the basis of the strategic nature of such sector.

The major evidence of criminal investments in this area is related to (Savona and Riccardi 2015):

- Wholesale and retail belonging to the fashion world where, especially for the Italian Camorra, this area plays a crucial role allowing the trade of counterfeit clothing;
- Wholesale and retail of food products which have been increasingly implemented for hiding the transnational trafficking of illicit drugs (e.g. in UK, Spain and Italy);
- Import/export companies, also exploit for masking the illicit drug trade and, mainly by Eastern European OCGs, for exporting stolen goods outside the border.

Other evidence of OCGs infiltration are related to the jewellery sector (e.g. the typical phenomenon of ‘compro-oro’ shops in Italy) and to the wholesale of medicines, where it is possible to identify illegal companies established in order to commercialize stolen or altered drugs.

Similarly to the construction sector, bars, restaurants and hotels, present some features that make such businesses an attractive choice for the criminal groups. All of them are cash-intensive sectors that, according to Fijnaut and Paoli’s study (2004), could facilitate the action of money laundering. Moreover, they present a high degree of territorial specificity, a trait

which can be beneficial for the monitoring of the surrounding area and for allowing a firmer control over the territory by OCGs. Finally, the associated low technological level may better adapt to the relatively weak knowhow and background experienced by criminals. All such characteristics, together with the possible strategic connections with the local administration and politicians, make the infiltration of bars and restaurants a popular alternative available to OCGs (Riccardi 2014; Savona & Riccardi 2015).

Finally, among the emerging sectors, is gradually gaining power the renewable energy business; the presence of public subsidies to promote the use of clean energy constitutes an advantage that incentivizes the infiltration of criminality. Focusing on Italian scenario, Caneppele, Riccardi and Standridge (2013) stress the high evidence shown by the wind power sector where the 10% of wind power plants are object of inquisition due to the alleged corruption actions involved.

To assess the risk of infiltration in the economic sectors the so-called Mo.Vu.S. model can be used. It assigns a valuation from 0 (minimum risk) to 100 (maximum risk) for twelve business sectors characterized by at least one previous case of infiltration. The index includes two risk macro-factors: a first element reflecting the territorial risk and a second expressing the sectoral one. The strategic importance of such model can be explained according to its double functions: on one side, it can be used to increase and strengthen the consciousness and responsiveness among public authorities and, on the other, it can help preventive action thanks to the introduction of targeted monitoring policies in the sectors and territories considered most at risk (Trascrime, 2013b).

2.4.2 THE INFILTRATED BUSINESSES: FOCUS ON THE PROCESS OF INFILTRATION AND CONTROL STRATEGIES

The infiltration process can be realized over two different kind of legal entities: already-existing businesses and new ones. Looking at the Italian scenario, as well as at countries such as Sweden and United Kingdom, it is possible to observe a situation of equilibrium between the two distinct typologies.

The realization of the penetration action into legal economy can be linear, whenever it regards the involvement of a member of the OCG who launches a new business or simply acquires an established one or, it can be more articulated and structured in multiple stages involving, for instance, the constitution of a partnership agreement with the existing shareholders. The presence of a weak regulation in terms of take-over process, as well as the existence of a limited

set of requirements necessary to activate a new business, are factors that can reveal strategic in order to facilitate the infiltration process (Savona and Berlusconi 2015).

Focusing on the ownership structure of the infiltrated entities, the choice of the legal form results to be strongly related to the purpose that OCG intends to pursue. When the main aim is to hide the underlying criminal behaviour and nature, the legal form selected could be the one of the private limited companies. These, beside to be the easiest form to establish and manage, present the advantage of making more complicated the recognition by law enforcement officials of the beneficial owners, limiting the effect of possible confiscations (Transcrime 2013). Indeed, during the confiscation process the shares object of restriction are only the ones of the individual impeached and in such scenario, which is characterized by a higher division of share capital, the identification procedure results to be more complicated (Fantò 1999).

To make more difficult the recognition of the final owner, the recent years have seen a considerable increase of articulated ownership structures and cross-shareholdings which commit a large set of enterprises (Savona and Riccardi 2015).

Alongside the presence of such complex schemes (e.g. networks of interconnected firms, multi-jurisdictional constructions), other strategies adopted regard the merger with other firms, the acquisition and sale of business units, the change of the business's legal form and company name or, the dissolution of the entire company and its subsequent transfer of activities to a new-established one (Transcrime, 2013b). For the same motivations, trusts and foundations, represent a crucial alternative due to the limited transparency requirements associated to such legal status.

A trend typical of the recent years is also represented by the numerous cases of joint venture established between different mafia groups to cooperate in the management and control of a business in a specific local territory. A case that witnesses the spread of this investment structure is represented by the union of Camorra clans and Calabrese clans for the administration of night clubs in the Brescia area.

Different is instead the scenario when criminals' specific goal is to exercise control over the territory and community. In such situation, indeed, individual companies such as proprietorships or legal forms such as partnerships could appear as the favourite alternative of criminal groups. The same result can also derive from reflections more connected to popularity, reputation and social consideration; the OCGs members can select these less articulated legal structures to gain visibility within the local community and, in this way, being identified as effective businessmen (Transcrime 2013b).

The purpose at the basis of the infiltration process within the legal economy is also fundamental in affecting the choices of directors and shareholders of the legal business. Figure 8 shows how the different drivers of concealment of illegal actions and direct control over the territory lead to a divergent preference in terms of members involved:

Figure 8: The different directors and shareholders involved

OC drivers and/or needs	Assumptions	OC strategy
Concealment of illicit activities and beneficial ownership	Natural persons as figureheads	Relatives among the shareholders
		Professionals among the shareholders
		Legal entrepreneurs among the shareholders
		Young people among the shareholders/directors
		Old/retired people among the shareholders/directors
		Women among the shareholders/directors
		Presence of people with low levels of education among the shareholders/directors
Direct control and exposure	Legal persons as shareholders	Use of corporate shareholders
		OC affiliates included as shareholders
		OC affiliates included as employees
		Family members among the shareholders and/or directors
Direct control and exposure	Direct control on mafia companies; use of 'family companies'	OC affiliates included as shareholders
		OC affiliates included as employees
		Family members among the shareholders and/or directors

Source: Savona, E., & Berlusconi, G., 2015. Organized Crime Infiltration of Legitimate Businesses in Europe: A Pilot Project in Five European Countries, p.94

Together with OCG members, another typology of shareholders that is strongly spread within the infiltrated business is, as represented in the previous figure, the one of figureheads and strawmen. Riccardi, Soriani and Gianpietri (2016), have found that the 54% of the confiscated entities reveals the presence of figureheads in their control bodies. Often, they are selected within the specific family in order to preserve the internal familiar control over the infiltrated business. This testifies the progressive transition from a situation where OCGs members were directly involved in the control of the infiltrated company to a scenario where, instead, they exercise an indirect control and rely on independent entrepreneurs irregularly employed for the business administration. Acting on this way, OCGs participants can benefit of the lower risk of appropriation and confiscation (Transcrime 2013b; Savona and Riccardi 2015; Fantò 1999). The investigation over the use of figureheads by criminal organizations has led the literature (e.g. Caneppele, Calderoni, & Martocchia 2009) to examine factors that could signal and warn about the presence of possible strawmen within the shareholding and control body. They have suggested that the presence of very young or quite old individuals (with an age < 25 years old or > 65 years old) could reveal the existence of this kind of figures. The same authors have also stated how the age factor cannot be isolated and must be examined consistently with other risk factors impacting on the infiltration process.

Transcrime (2013) declares that, despite the higher incidence of relatives as figureheads, business specialist and financial and legal experts are often considered and appointed due to their advantaged relations in the specific environment, allowing the OCGs to always monitor the local territory. Examining an example proposed by Savona and Berlusconi (2015), it is possible to observe also the involvement in the infiltration process of politician figures. In detail, has been analysed how an 'Ndrangheta group was intricate in the infiltration of a legal business whose controlled different supermarkets in the Reggio Calabria area. Since the OCG previously possessed the control of further companies operating in the industry of food production, such infiltration appeared strategic in order to ensure that their businesses will become the new suppliers of all the supermarkets controlled by the company in question. The beneficial shareholder of the same firm has played a crucial role in facilitating such infiltration; he was a town council's member who, in exchange of votes in the municipal election, gave its support to mafia groups.

An additional control strategy adopted by criminals is related to the size of the legal business. Tendentially, the companies most subject to criminal infiltration seem to be those characterized by a relatively small size. The reason at the basis of this statement is connected to the easiest management and monitoring process required.

The choice to infiltrate a new-existing business instead of an already established one is another strategy used by OCGs to exploit the weak law enforcement requirements generally associated to a new incorporated company. Caneppele, Calderoni and Martocchia (2009, p. 164), for example, explain that in public procurement sector the organized groups tend to infiltrate new businesses because they appear as "clean" and, more easily, can get public contracts.

2.4.3 THE FINANCIAL MANAGEMENT OF INFILTRATED BUSINESSES

The following paragraph analyses the management strategies of infiltrated businesses, identifying the differences between criminal businesses and non-criminal ones in terms of financing sources, use of assets and profitability. The purpose of such examination should be the facilitation of accounting and non-accounting "red-flags" that can reveal strategic in a risk assessment model of criminal penetration.

Before proceeding in detail with the study of such strategies it is useful to mention, as suggested by Arlacchi (2007), the competitive advantages associated with companies infiltrated by

criminal groups compared to non-criminal ones. The first benefit is related to the lower degree of competition resulting from the use of the mafia method that, in some cases, can even lead to a situation of total monopoly (Riccardi 2014). An additional advantage is associated with the containment of labour costs deriving from actions such as the non-payment of indemnities, social contributions or overtime hours. Finally, the infiltrated businesses can count on additional monetary sources deriving from their illegal actions.

As a consequence of the last point and related to the financing sources matter, the greater amount of financial sources originated from illicit activities can be invested and laundered exploiting the legal company. Establishing a company or financing it with capital of illicit origin allows not only to laundry money, but also to foster an economic activity without necessarily incurring to bank debt. The direct result is the lower request for bank credit, and the consequent small size of financial indebtedness (Transcrime 2013b).

An exception to such general conclusion is instead related to the consent achieved by criminal groups not only among the population, but also at political, administrative and financial level. This may guarantee a significant access of the mafia companies to private and public financing such as bank credit or public subsidies at municipal, provincial, regional and national level. For instance, it is known that the boss of the Camorra Pasquale Zagaria "always finds open doors in the bank" (Cantone and Feo 2011, p. 48) or that same privileges are granted to leaders of Cosa Nostra and 'Ndrangheta especially with reference to the EU funding (Arlacchi 2007). In these circumstances the results in the financial statements would be the exact opposite of what was previously assumed: they would present high levels of financial debt, even higher than the sector average.

The tendency to minimize the participation of OCGs members as shareholders of the infiltrated business for creating more difficulties during recognition process of the final owner justifies the lower amount of shareholders' equity associated with infiltrated firms. Therefore, generally, infiltrated business in comparison to non-infiltrated ones show a lower amount of shareholders' equity (Savona and Berlusconi 2015).

In the attempt to mask the flows of illicit proceeds, moreover, the infiltrated businesses have revealed the presence of greater debts to suppliers and other debts within their financial statements. Using fictitious suppliers, OCSs can hide the entrance of illicit profits reporting them as trade payables. The high amount of trade payables can also find an explanation in the ability of criminal groups to intimidate their real suppliers and, in this way, obtaining a longer solution of payment.

Regarding the asset perspective, the literature has stressed that, generally, organised criminals give more emphasis to current assets, due to their easier liquidation in the case of a law enforcement investigation. In such a way the risk of asset confiscation is considerably reduced. To confirm such statement, for instance, has been examined how businesses controlled by criminal members present a higher degree of inventory in comparison to the peer group represented by legal, non-criminal companies. High levels of trade receivables are also reported in the balance sheet of infiltrated entities in order to facilitate the coverage of outflows to OCG participants or other firms controlled by the criminal organizations (Savona and Berlusconi 2015).

Despite the existence of these general assumptions, it is appropriate to observe how the choice to invest in tangible or intangible assets rather than to give emphasis to liquidity or current assets is strongly related to the company function at the base of the criminal organization strategy. Adopting the classification proposed by Catanzaro (1988), it is possible to recognize three different kind of companies:

- Productive firms;
- Firms known as “Paravento”;
- Firms known as “Cartiere”.

The first typology present similarities with legal firms active in the market and, due to their exercise of economic activities, they will rely for a significant part on fixed assets of material or immaterial type.

The “Paravento” companies, on the other hand, operate exclusively for the purpose of laundering money and, as stated by Catanzaro (1988), they do not perform, or perform at a minimum level, productive activities. For this reason, it is even possible that they do not report any means of production, employees or an appropriate place for the declared activity. In this circumstance, it is legitimate to expect that the assets are mainly composed by working capital (e.g. liquidity, bank and post office deposits, trade or other receivables) and, only to a residual extent, by fixed assets.

The third typology is like that of the “Paravento” companies due to its main purpose of concealing illicit proceeds, but with a relevant difference. Unlike the “Paravento” entities, this third class can also be used by mafia organizations as formally legitimate businesses to which to register properties, vehicles and other assets. This behaviour allows OCGs members to complicate the process that identifies the effective ownership of such assets, complicating the law enforcement investigation. The direct consequence will be, therefore, the relevant presence of fixed assets and not only the one of working capital as in the previous case.

Finally, another topic that will be analysed is related to the profitability of such penetrated businesses. The distinction between productive and shell companies affects the profitability of the infiltrated entity. On one hand, there are productive companies that, despite look like legal firms about costs and revenues, can benefit from the advantages related to the application of mafia method. As suggested by Arlacchi (2007), these businesses can significantly contain labour and production costs through the implementation of behaviours such as corruption or threats that allow them to limit the payment of overtime hours, social contributions or indemnities. The use of low-quality raw materials is another strategy usually adopted to contain production costs.

On the other hand, there are shell entities or empty boxes that, not presenting significant productive actions, are characterised by limited or highly varying revenues (Transcrime 2013b). It is possible to recognize also infiltrated entities whose purpose is to hide the outflow to OCGs participants. In this case and for these motivations, the OCGs members appear as employees and, as stated by Steinko (2012), they create a scenario where labour costs are tendentially higher than the industry's average.

A general result valid for companies governed by criminal organizations is that they show lower profit margin in comparison to legal, non-criminal companies. This statement can be justified by the fact that such firms, tendentially, operate in conditions of economic weakness due to the poor management of criminal members and to the involvement of companies already in financial difficulties.

A complete analysis of what mentioned can lead to the identification of accounting red-flags able to facilitate the recognition process of a criminal company in comparison to a non-criminal one. Savona and Berlusconi (2015) suggest that it is necessary to discover and elaborate further findings and improvements: the future research should focus on the investigation of financial statements together with other documents (e.g. reports by judicial officials) to allow the realization of a deeper analysis of the real financial management of the business. In addition, a time dimension should be included for taking into consideration the possible variations of the management strategies performed by the criminal groups. Indeed, for instance, when the OCGs members perceive the possibility of an investigation process they may disinvest their assets (with reflections on the financial statements) or shutting down an entire business unit. Therefore, the authors suggest the introduction of a time-series element able to reflect the changes in management strategies also from an accounting point of view.

2.5 THE COMPLEXITY OF ORGANIZED CRIME: MANAGEMENT OF INTERDEPENDENCIES AMONG CRIMINAL CRIMES AND ACTIVITIES

The action of criminal organizations is becoming increasingly dangerous due, not only to the expansion and widespread of the phenomenon in non-traditional areas but, in addition, to the stronger interdependencies that are emerging among crimes and criminal activities. As stated by Adamoli et al. (1998), it is possible to observe a growth of both vertical interdependencies, involving individual crimes, and horizontal interdependencies, originated among articulated criminal activities. The main difference between the two distinct classes of interdependencies is, therefore, related to their focus, respectively on crime and on criminal activity: the term crime refers to an individual behaviour punishable by law, whereas the definition of activity evokes the idea of an illicit conduct evaluated in its entirety.

The same idea of interdependence recalls the different interdependencies existing in the production processes of legitimate companies. The term may be interpreted as a synonymous of efficiency: as stated by Di Nicola (2006), it is the best method, at the same cost, to combine available resources and to obtain a product. The same concept applies in a context of illegality.

Adamoli et al. (1998) observe that an increasingly trend is related to the performance of preliminary, intermediate crimes, committed by a unique criminal group in order to facilitate the subsequent realization of a final strategic offence. In this case, it is possible to mention the term of vertical interdependence among individual crimes that recalls the image of a chain of misconducts, all connected and functional to the execution of a final offence, which is strategic both in terms of associated consequences and profits. The growth of such interdependence may be seen as the result of the gradual and increasing expertise developed by OCGs.

Various examples can be used to better explain the concept of vertical interdependencies. As stressed by Adamoli et al. (1998), it is relevant to observe how the three actions of fraud, corruption and money laundering are strongly linked to each other; the investigation of criminal operations has demonstrated how, in many occasions, the final realization of one of the three criminal behaviours, leads to the previous involvement of the other two instrumental crimes.

For instance, it is possible to recognize a corrupt behaviour of public institutions as an intermediate mean to perform, in a subsequent moment, the ultimate offence of fraud against the European budget. The income originating from this final crime will be preserve, maintaining their illicit nature as hidden as possible, through the further crime of money laundering. Vice

versa in the situation where the money laundering appears as the final objective, behaviours such as the falsification of accounting documents or the corruption of the personnel of the financial institutions involved, are often perceived as intermediate steps useful for achieving the mentioned final goal. Finally, when the corruption is the ultimate target to realize, criminal actors can hold in a first moment a fraud behaviour (e.g. counterfeiting of documents at the basis of the realization of slush funds) and subsequently can commit a money laundering crime to hide and allow the reinvestment of previously gained financial sources.

The horizontal interdependencies, as described by De Nicola (2006), occur when the connections are established between different illegal activities carried out by the same actor or group of actors who, after gaining experience in a criminal field, transfer the specific know-how, and the necessary structures and facilities implemented, in another one. Numerous examples cited in the literature (e.g. Adamoli et al. 1998) testified the growing presence also of such class of interdependencies that, differently from the vertical type focused on the specialization issue, show a clear path in favour of the diversification.

In such setting it is observable the exploitation of already assimilated expertise, capabilities, network of connections and physical resources into new criminal markets. A typical example cited is the one of the drug traffickers, who subsequently followed the same routes and used the same boats for the trafficking of human beings.

In line with the previous example, a further case analysed has been the one involving the Turkish criminal groups, which exploited the rich system of corruption originated from the conduct of the typical illegal actions (e.g. drug trafficking, prostitution) to perform the more recent people smuggling from Eastern and Central Asia to Western Europe.

The centrality of this topic brings out a further challenge in terms of possible policies able to counteract and discourage the spread of these behavioural patterns performed by criminal organizations. Adamoli et al. (1998), regarding the vertical interdependence among individual crimes, state that it is necessary to tighten the system of punishment designed for those criminals guilty of committing a variety of connected crimes, all directed towards the realization of a final criminal goal. It will be essential, therefore, not to focus on the individual crime in its singularity but consider the broader perspective of which it could be part.

2.6 THE SOCIO-ECONOMIC IMPACT OF ORGANIZED CRIME

The impact of criminal organizations on socio-economic scenario has aroused literary interest since the 70s. Both direct and indirect damaging effects have been correlated to the manifestation of organized crime. Authors such as Daniele and Marani (2011) have analysed the negative consequences brought by the phenomenon in question, responsible for a general weakening of the reference economic setting: greater uncertainty and vulnerability of investment decisions, relationship among industrial actors less stable due to a lack of trust at the base, and a general situation of precariousness dictated by the numerous legal and security problems are just some conditions that characterize such environment. The resulting instability has led to a progressive reduction of long-term relationships among business players and to an inevitable weakening of the possible connections involving different economic agents. Indeed, as stressed by the literature, a negative effect associated with organized crime is the more contained formation of new relations at industry level and the increasingly dissolution of already-activated local linkages among economic players; this scenario will cause a reduction of the positive externalities originating from the interactions between geographically close companies, operating in the same sector (Ganau and Rodríguez-Pose 2018).

The result of criminal organizations' actions can be interpreted as a tax applied on the entire economic system: in addition to discourage investment operations, the same reduce the level of competitiveness within the industry, cause a reallocation of resources and fuel a general climate of risk and inefficiency (Detotto and Otranto 2010).

Numerous distortions of economic system can derive from criminal activity due to its capacity to alter market rules. In particular, it is possible to examine how a trend practiced by OCGs is the one to act on the market directly controlling other companies who will be obliged to comply with certain requirements linked, for example, to the acquisition of goods and services only from other specific firms, modifying the traditional supply chain relationships (Ganau and Rodríguez-Pose 2018). The controlled companies could, in addition, be obliged to buy inputs only from determined suppliers, who are in turns governed by the same criminal group, or they may be bound to pay the infiltrated company in order to continue to perform their role in the market.

A further step carried out by Detotto and Otranto (2010) has been the one concerning the investigation of crime distortions patterns respectively during the growth and recessions phases.

Can the reference to a certain phase of the economic cycle influence the distortions originated by criminal activities? The authors, after affirming the lack of uniformity of behaviours over time, have stated how the damaging effect caused by criminal actions is 5% harder when the focus is on times of economic difficulties. In this recession phase the increase of 1 % of criminal actions is at the base of a monthly and annual decrease in economic growth, respectively of €0,5 and €2,6 million.

In order to assess the effects of the presence of organized crime on the economic system, it is also essential to carry out a macro-economic analysis to better investigate the effects generated by OCGs activities on the propensity to consume and investment. On both elements of aggregate demand, the presence of organized crime can have negative effects.

The propensity to consume is the share of income that the public devotes to the demand of goods and services; it will range between the minimum limit of zero, when the entire income is saved, and the maximum of one, when the entire income is consumed.

As suggested by Ferrara and Mavilia (2011), the presence of criminal organizations can be neutral with respect to social income only if the propensity to legal consumption of illegal income earners should be equal to one. If, for example, the aggregate production of a system of legal firms is equal to 100 but 10% of the income they distribute should be directed towards the demand for illicit goods and services, this would mean that the legal product offered by the companies in equilibrium will be equal to 90 and not 100 due to the subtraction caused by the illegal sector.

However, if the illegal income earners use the entire remuneration of the illegal activity for the demand of legal goods and services, they would compensate the legal circuit causing a redistribution of the expenditure but not weakening the total income.

It is therefore clear that in the hypothesis in which the propensity to legal consumption of illegal income earners was lower than one, the presence of criminal organizations would reduce the circulation of income and the size of legal demand, causing a contraction of the income produced.

The authors, moreover, cite three distinct reasons that confirm the mentioned hypothesis and the consequent scenario: first of all, it is evident how a portion of the illegal income continues to remain within the criminal circuit, fuelling the demand for illegal goods and services; secondly, it has been examined how the criminal sector presents a relevant propensity to save for social security and investment purposes; finally, a third reason lies in the fact that at least a part of the income reintroduced into the production system takes a foreign destination, determining therefore a reduction of the national product.

The presence of the organized crime affects another strategic component of the aggregate demand: the propensity to invest. Indeed, the OCGs activity impacts the vital element for the functioning of the productive system represented by the marginal efficiency of the capital. The evaluation of this element, defined as the ratio between expected returns and the direct cost of the initial investment, and its comparison with the interest rate will support every investment decision. All other conditions being equal, everything that negatively influences the dynamic prospects of the net return on investment reduces the value of the marginal efficiency of the capital and, in turn, discourages the investment decisions. The organized crime generates negative effects on the costs supported by the firms to sustain their investment projects; the additional costs manifestations differ depending on the plurality of possible responses to the criminal presence.

As observed by Ferrara and Mavilia (2011), it is possible to recognize three categories of entrepreneurs who react differently to organized crime: firstly, there is the so-called entrepreneur “*acquiescente*” who believes that any form of resistance to extortion would be more burdensome than a supportive behaviour aimed at mitigating the organized crime cost. Secondly, it is possible to mention the entrepreneur defined as “*resistente*” who supports the cost of the resistance in terms of damage suffered as a result of intimidating actions such as sabotage, theft, direct costs for supervision or those costs related to the psychological pressure. Finally, the third class involves the so-called entrepreneur “*connivente*” who participates to the criminal game by offering a service to the organization such as a place for money laundering and, in turn, can benefit from more advantageous supply or market conditions due to the pressure exerted by the organization on other local companies. In this last case the additional cost does not consist in a worsening of the economic conditions of the company, but in a social cost: the criminal presence, preventing the free expression of individual preferences, alters the price mechanism, distancing the system from the conditions of productive optimality and efficiency.

The increase in productive costs supported by the first two classes of entrepreneurs has the effect of discouraging the investments decisions, while the alteration of the price system in the case of “*conniving*” companies, fuels a progressive reduction of the total product and a constant distancing from the model of market efficiency.

CHAPTER 3

WOMEN'S ROLE AND USE BY ORGANIZED CRIME

3.1 THE ORGANIZED CRIME WOMEN'S HISTORY

Organized crime has been considered for years a masculine behaviour associated with a marginal women role described mainly by their primary activity of supporters of fathers, husbands or sons. Belonging to the masculine gender appeared the main selective criterion to access the initiation rite and, in this way, enter in the honoured society (Ingrascì 2007). On this theme, Tamar Pitch (2002) refers to the terms of “*maleness*” associated with the concept of gender and “*masculinity*” in relation to the different values, ideals, and moral principles at the base of such criminal world.

This is the traditional perspective that precisely defines crime as a purely masculine phenomenon, specifying that in scenarios characterized by a high level of risk and danger, organized crime appears as a sexually segregated behaviour (Steffensmeier 1983).

In this male dominant scenario and with a focus on the Italian setting, the woman role was mainly to support the socio-cultural structure of the Mafia system, through conducts aimed at educating children about the mafia, encouraging them to revenge or defending the criminal reputation of their men. Within this framework it is possible to recognize a distinction between passive functions and active functions carried out by mafia women.

Concerning the passive functions, the most significant one sees the woman as guarantor of the male reputation: the respectability and integrity of the woman safeguards the male reputation.

On the other side, related to active functions, the transmission of the Mafia cultural code can be recognized as women's main purpose. It is a women's duty to educate children on mafia principles of conspiracy of silence, honour and revenge, especially because of the fathers' distance due to the engagement in criminal organization, detention or inaction (Pasculli 2009).

Another role assigned to women is related to the so-called (Siebert 1994, p. 66) “*pedagogia della vendetta*”: it is the woman who encourages the men, both husbands and sons, to respect the honour and restore a situation of equilibrium previously altered.

Despite it is evident how the active role of women represents and represented a determining factor able to strengthen the mafia-type structure, the recognition of the female figure as a strategic participant of the OCG has been slow to come.

The cultural stereotype that associated criminal figures to men has affected for many years judges’ assessments, determining a scenario where mafia women, who were reputed passive actors totally subject to the dominion of men, were rarely condemned and punishable for their criminal conducts.

This general behaviour was also favoured and facilitated by the legislator himself: not precisely defining the normative concept of participation in the criminal association, the legislator shifted this responsibility on the interpreter. The judge, therefore, had to refer to the logical-scientific interpretative criteria or to socio-criminological parameters, with the real risk of not complying the normative field of the art. 416 bis c.p. (Pasculli 2009).

Authors such as Steffensmeier, Schwartz, and Roche (2013) have, moreover, revealed that the women presence is much more limited and contained in those criminal roles that are associated with high financial returns. This trend that determined a greater women participation in secondary and inferior positions was, according to Steffensmeier's (1983) work, totally aligned to the typical scenario existing in the legal labour market. A motivation at the base of their major representation in favour of subordinate roles has been identified in their lower ability to physically intimidate.

A crucial point of change that has marked the progressive transition of women from the traditional role to the criminal role within the organization took place as effect of two processes of mutation: on one side it is possible to mention an external factor related to the social changes occurred in the last quarter of the century, which have revolutionized the general role of women and their expectations. The increasingly removal of women from merely supporting roles in favour of positions that require the exercise of more articulated and complex activities (e.g. money laundering) can be explained as the direct result of the cultural transformation that led to progressive female emancipation. However, this point has been object of numerous criticisms from authors who, instead, argued that such emancipatory processes encouraged the opposite

women behaviour represented by choices of breaking and rebellion against the mafia environment (Graziosi 1993).

On the other side, it is possible to cite an internal factor related to the deep changes manifested both at organizational structure level and at criminal activities level. Concerning this last point, indeed, a progressive expansion of the range of criminal actions has promoted the idea of treating women as a vital and strategic source of OCGs social capital (Pasculli 2009).

To better explain this transformation in terms of reputation, involvement and visibility of mafia women from the second post-war to the present day, the author Pasculli (2009) has mentioned three historical phases that have characterized this evolution:

- A first phase of invisibility (characterizing the period up to the early 1980s);
- A second phase of partial visibility starting from the second half of the 1980s;
- A third phase from 1996 to the present day where emerges the mafia woman in its entirety.

Starting from the third phase women became direct protagonists within mafia organizations: they are mainly wives, sisters or daughters who collaborate in the implementation of the criminal strategy by performing the following functions: they support the relations among mafia clans through specific marriage schemes, they take care of the socialization process by managing and activating strategic relationships and play a strategic role in building an image of the criminal organization that appears as normal as possible.

3.1.1. THE CORRELATION BETWEEN LEGAL LABOUR MARKET AND CRIMINAL MARKET

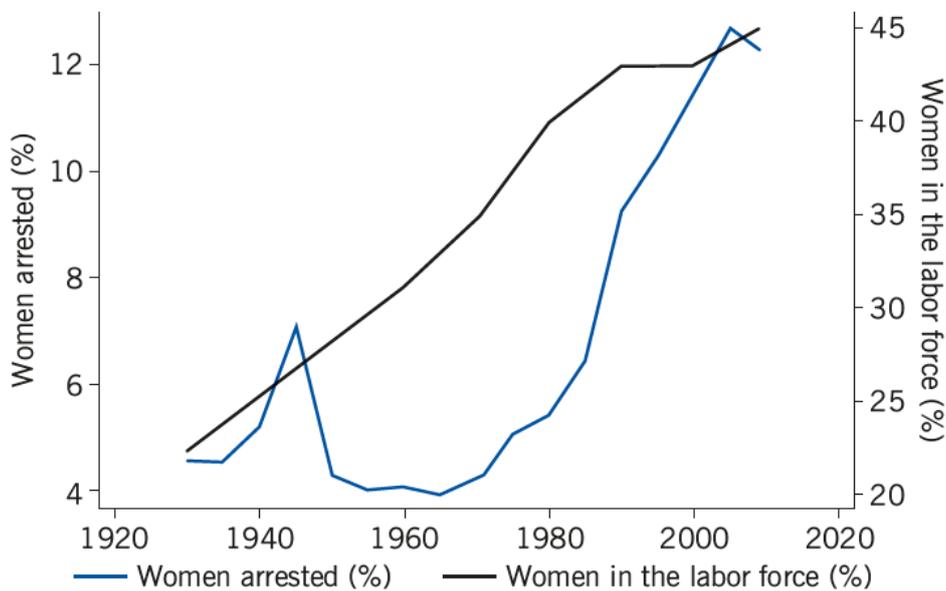
The recent tendency that observes a progressive, albeit still slowing, participation of women in the labour market has been accompanied, as stated by Campaniello (2019), by a similar trend in the criminal arena. Despite the greater participation of male figures, the author has observed how the presence of some specific factors has facilitate the growing approach of female figures to this reality. Women's entry as workforce of both legal and criminal world can be justified by the evolution generated by changes in technological and social fields.

By examining the driver connected to progress in the social norms area, it is possible to observe how the phenomenon that has seen the progressive abandonment of women from purely

household roles has caused the increase of female participation in the criminal world. Campaniello (2019) has argued that, in comparison to the past, women can now face new challenges in the criminal scenario as a result of the greater freedoms they enjoy. Although there is still a significant prevalence of male figures, the constant thinning of gender divergences associated with the various economic and social phenomena has influenced the progressive use of female figures by criminal organizations.

To better explain the female presence in criminal settings, numerous sociology and criminology scholars have stated that there is a strong correlation between the role played by women in the broad spectrum of society and that held in the criminal market. They believe that the gender difference in crime cannot be explained solely by distinctive genetic factors that characterize men and women: if, in fact, such divergency depended simply on biological factors, there would not have been the increasing female participation in the underworld, witnessed, among the others, by Campaniello (2019). The following figure (Figure 9) highlights the strong relation between the women’s role on the legal economy and that held in criminal companies witnessed by the increase in female arrests since 1930.

Figure 9: The positively correlation between female workforce in the legal economy and female arrests



Source: Campaniello, N., 2019. Women in crime. *IZA World of Labor*, p. 2

In such direction, the literature (e.g. Zhang, Chin & Miller 2007) has provided evidence of how the organizational context itself influences the degree of female inclusion in criminal networks. It, indeed, on one hand can act as moderator, hindering the inclusion of women and link it to

secondary and subordinate positions while, on the other, can intensify and strengthen the use of females figures by criminal companies.

Despite the established link between criminal companies and those operating in the legal economy, it is also appropriate to observe that some mechanisms able to mitigate the effect of gender stratifications in the legal labour market (e.g. policies to support women in the labour market), in the criminal settings could be inactive or very marginally defined. This situation, therefore, will justify the presence of a scenario more strongly associated with the phenomenon of gender stratifications in the illegal reality.

To confirm the latter statement, it is also useful to mention the Steffensmeier's contribution (1983): the author supported the thesis in favour of the presence in companies guided by organized crime of a more accentuated effect of sex segregation. In particular, he argued that gender stratification would be more present in criminal firms due to the associated greater organizational difficulty, to the general higher level of competition and danger derivable from the activities performed by other criminal groups and to the needed physical strength to allow the generally practiced intimidation action.

Lastly, focusing on the relation between the organized crime illicit market and the legal economy, it can be argued that the progressive increase, albeit marked by considerable difficulties, of women's employment as labour force in the legal market has further reduced their use in the illegal economy (Campaniello 2019).

After this introduction, in the rest of my thesis I will analyse the evidence provided by the literature which, as will be made clearer below, will give rise to two distinct literary branches supporting two opposing theses in terms of female involvement in criminal firms.

3.2 THE IMPORTANCE OF LESS SUSPECTED FEMALE FAMILY MEMBERS

The recent scenario reveals a progressive break of what authors like Carroll (2002) define the "Mafia's glass ceiling". Women, from simple supporters of the criminal organization, can become real substitutes for male criminals. This is particularly evident in the case in which the mafia leader is imprisoned: it is possible to note the importance given to trustworthy female people such as the wife or daughter rather than involving external individuals. A question that arises spontaneously is: why do they rely on a female figure and not, for instance, a son?

The main advantage associated with women, that has contributed to their growing participation in criminal activities, is linked to the fact that they appear as less suspicious and controlled by the law enforcement authorities. There is a general believe that women, on the part of institutions, receive favourable treatment and are less controlled (Siebert 2003). As reported by the magistrate Eugenio Facciola, indeed, the criminals tend to protect their children and to entrust tasks to their wives, as they believe that the judicial authorities, in the event of the head of the family's imprisonment, tend to directly control the children leaving out the wives (Siebert 2003, p. 21).

Under the perspective of criminal organizations, women can play a strategic role due to their "clean" appearance; it is exactly this particular nature that can be exploited by OCGs to present the organization under a "normal" and "clean" aspect. This normality will be, in turn, essential to facilitate and accelerate the consensus given to the organization.

This characteristic connected to their apparently "clean" nature, as revealed in literature by authors such as Riccardi, Savona and Berlusconi (2016), can encourage the use of women and in particular, as explained later, of mothers, sisters linked by a family bond to purpose of arousing less suspicion.

Focusing on the infiltrated legal businesses, the Chapter 2 has described the centrality in the infiltration schemes designed by the organised criminal groups of the figureheads, individuals who can cover respectively 4 possible roles within the infiltrated businesses: formal owners, directors, employees or holders of bank accounts subsequently exploit by OCGs. The main point stressed is that, in all the different circumstances, the presence of such figures is directed to delineate a clear connection between the criminal final owner and the infiltrated firm. The choice of the more appropriate figurehead is based on the desire to ensure an equilibrium between, on one side, the necessity to hide and conceal the criminal nature and, on the other, the need to maintain a control over the company. The existence of such trade-off determines a situation where the selection of the most suitable figurehead is related to the specific culture and tradition developed by the criminal organization. In cases (e.g. 'Ndrangheta and Cosa Nostra in Italy) where the control of the firm represents the main objective to pursue it is evident how the preference is towards internal figureheads (e.g. relatives). In such direction, it is possible to mention the strategic role that may be played by the female family members (e.g., wives, partners, daughters) acting as figureheads (Savona and Riccardi, 2018).

Female family figures being, as previously stated, less suspect can be a strategic social capital both to hide the intrinsic criminal nature and to maintain the direct control over the organization (Fiandaca 2007).

3.2.1 FEMALE AND RELATIVES AS FIGUREHANDS

The literature has increasingly stated the centrality of relatives as appropriate figureheads; they, indeed, being family members are considered more reliable and easier controllable.

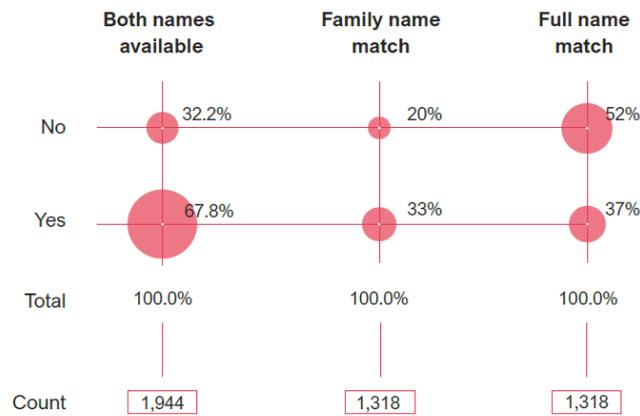
This trend, for the above-mentioned reasons, is even more evident when the focus is on females. Savona and Berlusconi (2015) have revealed that in geographical areas characterized by a high rate of female unemployment, with very few managerial roles assigned to women, a risk factor that may reveal the existence of an underlying criminal infiltration could be related to the involvement of women as company shareholders or directors.

From the examination of the data collected by Unioncamere (2018), it emerges that, although there is a significant percentage (33%) of women appearing as owners of criminal companies, the 90% of the imprisoned are male. This result has been achieved also studying the ISTAT data³: such figures, after revealing the crucial presence of proprietary mafia women, have reported a very limited percentage of females as convicts in the period from 2000 to 2016.

At the basis of this result there is the increasingly involvement of family women only as figureheads so that, using their maiden and clean names, they can hide the identity of the underlying criminals involved. To confirm this statement, it is possible to examine Savona and Riccardi's analysis (2018) which, first of all, reveals the strategic presence of relatives as straw men: as can be seen from the following figure (Figure 10), it is possible to highlight how a relevant percentage (20%) of the examined sample does not show conformity between convicts and owners and, instead, presents a match in terms of family names (i.e. use of relatives with the same surname as figureheads).

³ <https://www.istat.it/it/archivio/103655> [07-10-19]

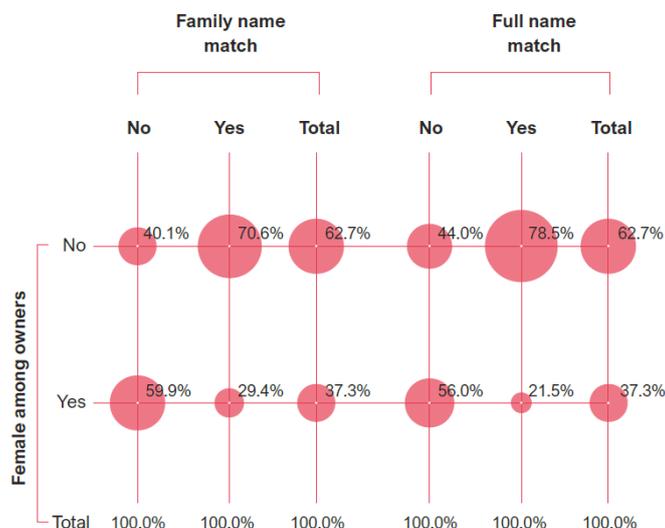
Figure 10: The match among convicts and proprietors



Source: Savona, E.U., Riccardi, M., 2018. Mapping the risk of Serious and Organised Crime infiltration in European Businesses – Final report of the MORE Project, p. 94

Another important consideration may be the one related to the use of female figureheads: the absence of a family name match could be the simple result of the use of “clean” and maiden names of wives and girlfriends. This effect is better represented in the following figure (Figure 11) from which it emerges that 59.9% of the proprietary women do not show any correlation in terms of the family name with the offenders. This percentage could, therefore, include those family female members who maintain their maiden names.

Figure 11: The match among female owners and convicts



Source: Savona, E.U., Riccardi, M., 2018. Mapping the risk of Serious and Organised Crime infiltration in European Businesses – Final report of the MORE Project, p. 95

Women, moreover, result a relevant component also of the infiltrated businesses' board of directors in some countries. Savona and Berlusconi (2015) have, for instance, cited the case of Slovenia, where has been found that the 50% of infiltrated companies presented a significant participation of women in their boards. This is the direct effect of the main infiltrated industries and related criminal actions characterizing such country. Indeed, the authors emphasized the centrality and preference of businesses like bars and night clubs in the strategic infiltration choices promoted by criminal organizations. The women's exploitation can be explained by the need to hide underlying illegal activities such as prostitution. In order to make the boundary between illegal and legal activity less visible to the judicial authorities, a strategy used was to rely on the same women involved in the illegal activity also for the proprietorship and administration of the infiltrated business.

However, it should be noted that the different female operations, dictated by more or less active roles, depend on the structures of criminal associations and on OCGs culture and developed habits.

3.2.2 THE INFLUENCE OF STRUCTURE OF THE ITALIAN CRIMINAL ORGANIZATIONS IN THE WOMEN'S ROLE

The literature has stressed that, despite the increasing general importance given to female role, women's operations are strongly related to the nature and features of the criminal organization to which they belong. Analysing the Italian mafia scenario, it is visible that, whereas Sicilian women are mostly considered compliant wives, who maintain a position of dependence and detachment with respect to the husband's criminal plans, *Camorra* ones have always been more active and conscious of males' conducts. They do not hold passive support roles in favour of their men (fathers, children, brothers) but, instead, they are involved in much more complicated and articulated activities: *Camorra* women are not only executives of "front" businesses, but even leaders of a strategic importance (Fiandaca 2007).

Carroll (2002) has investigated the large female presence in money laundering activities, which require a growing women's specialization in concealing and transferring financial sources, and in those activities aimed to establish social contacts for interference purposes. The integration of organized crime into community can be facilitated and realized by exploiting the intermediary role played by women: the same, in many occasions, have been used to create

strategic connections with the legitimate economy. The growing female involvement, both in the legal and illegal world, can be justified by their increasing presence in universities and labour world; these are, according to Carroll's thought (2009), the main justifications at the basis of the progressive Italian mafia women's participation.

The divergences, determined by the various cultural and structural contexts of the criminal organization, may result in different women's roles played within the infiltrated business sphere. As stressed by Savona and Riccardi (2018), there are some OCGs, such as the Italian *'Ndrangheta* and *Cosa Nostra*, which exploit the females as figureheads, revealing, therefore, the mainly passive and supportive nature of their women. The analysis of female involvement in the economic-financial sphere can be read, in this case, as a purely functional tool for criminal organizations. Indeed, it does not bring significant advantages to women who, despite being assigned to such roles, maintain a position of economic subordination towards the male family members. Examining the figurehead charge, Siebert (1994) stated that this role, despite allowing females to relate to an extra-familiar context which allows the establishment of a legal responsibility in the public scenario, did not imply a rupture of women's subordination and dependence from those who are the active subjects for which they work.

Another case is the one typical of *Camorra* organization: it relies on the strategy of female straw men at a much lower rate (28% in comparison to the 37% of *'Ndrangheta* and *Cosa Nostra*). This result could reveal, as specified by Allum (2007), the greater exposure of *Camorra* women towards active and directly attributable roles, instead of focusing on more marginal and subordinated ones.

Allum (2007), in explaining the transformation process involving *Camorra* females, states that this is the result of the wider mutations characterizing the civil society since the 1950s. As happens in the traditional legal scenario where women appear more ambitious and eager to achieve successes in both the family and work spheres, also the criminal environment shown the same trend. Claire Longrigg (1998, p.35), in line with the previous statement, declared that: "Neapolitan women play a full and active part in society, perhaps more than women from any other region of Italy, and the criminal underworld is no exception".

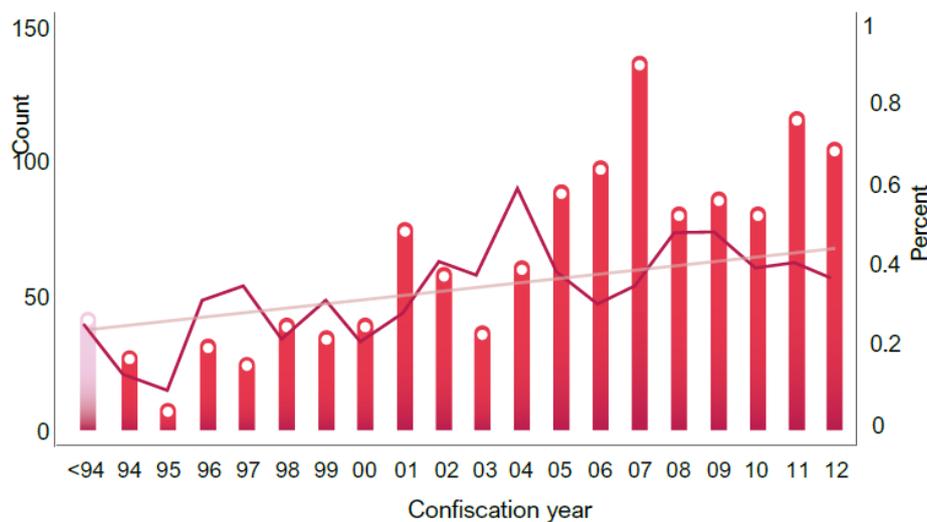
An active women role, especially favoured by the progressive Mafia attention towards those economic-financial crimes which appear as less and less anchored to the use of violence and

physical intimidation, is also visible in the north of Italy area. As suggested by Ingrascì (2007), it is this shift of interest in favour of the economic-financial field that facilitated the entry of women specialized in the management of money and properties.

All the literature so far exposed is consistent in stating that criminal companies, especially due to the evolutionary process involving women in the criminal scenario, show a greater female participation in the roles of owners or directors, especially exploiting the figurehead charge.

Savona and Riccardi's study (2018) has revealed that in confiscated infiltrated companies the percentage of women owners was twice that of legal firms and it is subject to a constant increase overtime (Figure 12).

Figure 12: The increasing rate of female owners



Source: Savona, E.U., Riccardi, M., 2018. Mapping the risk of Serious and Organised Crime infiltration in European Businesses – Final report of the MORE Project, p. 94

If, up to now, it has been observed that women's presence in criminal companies may be superior to that of the legal economy, in the next paragraphs it will be will discuss, instead, the opposing thesis, supported by arguments related to women's higher propensity to implement more ethical, transparent and less risky behaviours. This line of literature, therefore, will justify the opposite conclusion connected to the lower reliability and use of women in criminal companies compared to that associated with the businesses charactering the legal economy.

3.3. THE LIMITED PARTICIPATION OF WOMEN IN CRIMINAL NETWORKS

The thesis that criminal organizations use a lower percentage of women in their criminal companies' corporate boards can be discussed by analysing what, according to Steffensmeier, Schwartz and Roche's paper (2013, p. 466), are the "*focal concerns*" associated with males and females. The literature has stressed that the male distinctive concerns, which cause a higher propensity to incur and participate in illegal and criminal scenarios, concern:

- 1) Typical male individualistic approaches which incentivize a logic of independence, control and domination;
- 2) The desire to achieve a status/position in the public scenario which inspires behaviours aimed towards competitiveness, risk-seeking and resoluteness.

These crucial and distinctive concerns will determine a direct effect in the formation of specific identities, influencing both behaviours and underlying moral principles: they will impact, for instance, on the ethical orientation or risk attitude at the basis of gender differences.

The different focal concerns have affected, in addition, the social relationship, directly contributing to the definition of social and individual expectations with reference to risk and criminal involvement sphere. The development of these gender expectations, according to Swart (1991), is one of the main motivations explaining the restricted women's participation in criminal networks: females may be not considered as strategic resources of criminal organizations because their participation could be reputed "*doubly deviant*". Indeed, it will be considered not only an infringement of the social rules but also an infringement of what is reputed the most correct conduct for women as such. However, other authors argue that the marked border existing between women and criminality is not only the result of the gender stereotype and expectation just mentioned, but also of the presence in the female figures of higher social values that make participation in criminal networks disagreeable (Zhang, Chin & Miller 2007).

Women, for instance, are associated with the so-defined ethic of care, which emphasizes their attention and propensity towards the satisfaction of others' needs; this trait and female focal concern has contributed on their greater adversity towards the implementation of conducts that could be dangerous for the community (England 2005).

In general, this feature reveals the feminine nature opposing to the actions contrary to the law. On the other side, male figures, who are oriented towards the achievement of a public recognition/status, will act by implementing a more autonomous and competitive approach. Therefore, as suggested by Steffensmeier, Schwartz and Roche (2013), it is visible how the boundary between the male figure and the criminal activity is not as marked as it is for the female figure: the risk-seeking attitude and the propensity to challenge social norms are attributes more present in men which explain their greater facility to adhere to criminal settings. The search for a specific status in the public sphere, according to one of main male concerns, may be used by men to better rationalize the possible illegal conduct performed.

Therefore, the literature has observed how different focal concerns among men and women will contribute to the creation of gender divergencies in terms of motivations at the basis of crime, also affecting the definition of risk-aversion and risk-seeking styles and the different reactions to pressure situations.

To support the previous statement, it is also possible to mention the evidence provided by Gul, Srinidhi and Ng (2011). The authors state how female figures tend to act in a more transparent manner, giving more emphasis to reporting activities and to the quality and truthfulness of the data transmitted. Female leaders, compared to the male counterpart, tend to exploit their power to approach matters of social responsibility. As suggested by O'Fallon and Butterfield (2005), women are more likely to think at people as the main priority, not focusing solely on earnings gained. Females give a high value to issues related to social involvement, socialization, integrity and ethical conduct. Numerous authors state that the women's role as board members positively affects the company conduct; since females identify themselves as wives and mothers within the business context, they tend to adopt more ethical principles and to sustain more philanthropic ideals and values (Ibrahim and Angelidis 1991). As just described, the more pronounced emphasis on ethical principles, that appears as a deterrent to corporate misconduct and criminal activities, explains the lower consideration of women as possible resources employed by criminal organizations (Steffensmeier, Schwartz and Roche 2013).

Moreover, examining the literature focused on stress and mental health, emerges that men are more oriented towards the realization of material purposes, they are more concerned about losing their individual status and facing financial difficulties: these distinctive traits will justify the possible use of criminal strategies to deal with such difficulties and tensions. Vice-versa women appear more focused on social relationship, giving more emphasis to family ties. Males tend to justify and adopt criminal conduct to preserve their status, their position and their power, while women experience greater concern, fear and guilt that lead them to adopt such conduct only in order to protect their family (Steffensmeier, Schwartz and Roche 2013).

To conclude, it is possible to cite the Steffensmeier's contribution (1983) who justified the restricted female participation into criminal scenarios, especially in the economic criminal settings, as the result of the implementation of the so-defined "*exclusionary practices*" performed by male criminals. The same, adopting the mentioned *exclusionary practices*, will be able to re-propose the male-dominated character of criminal networks and to rationalise the same by anchoring to the typical features of female nature. Women, according to Steffensmeier's thought, are reputed by male criminals less reliable, faithful and trusty; females appear as less strong from both a physical and emotional point of view.

3.3.1. GENDER DIFFERENCES IN ETHICS AND CORRUPTIVE BEHAVIOURS

As discussed in chapter 1, numerous authors in the literature have emphasized, among the typical characteristics of the female figure, women's more conservative and ethical inclinations that contribute to the realization of a more controlled environment, with a low tendency to the commission of illegal activities such as frauds (Vermeir and Van Kenhove 2008). Such female predispositions, indeed, can be read as a natural barrier able to counteract the realization of fraudulent misconducting.

To confirm such previous statement, it is useful to observe how males and females tend to rely on different principals when they face ethical assessments; there is a general consensus in recognizing females as the most ethical figures, the ones who mostly reveal unethical conducts and who act as internal controller within company environment (Ho et al. 2015).

The *gender socialization theory* appears as a crucial source in the examination of the gender divergences related to the ethical issue. This theory explains how males and females, since childhood, develop ideals and fears anchored to different gender stereotypes. These one, in turns, will be responsible of psychological and cognitive variances which will affect and form their moral ideologies. While men will operate to satisfy objectives aimed at the realization of their own success, women, instead, will aim at the realization of common purposes, giving greater importance to the realization of social relations. Females, guided by the achievement of such objectives, will be oriented, in situation of choice, towards more ethical decisions for the benefit of the entire society (Cumming, Leung and Rui 2015).

Cumming, Leung and Rui (2015), in line with the previous statements, have examined how the rate of female managers and chairmen is relatively lower when the focus is on fraud companies rather than on nonfraud businesses, sustaining the mentioned perspective that sees women as more ethical members, reluctant to carry out fraudulent conducts. The same result has also been achieved by Lenard et al. (2017), who have argued that companies whit at least one female in a management role are less inclined to fraud behaviours.

A motivation that may explain this scenario is related to the psychological characteristics of women and to its distinctive emotional nature. The *biological model* examines the gender personality differences, attributing the responsibility, for example, of the greater women's anxiety to their extra X chromosome. Vice versa, considering the *sociocultural model*, it is possible to describe the gender differences in personality as the product of socio-cultural determinants related to social expectations in terms of roles and typical gender features (e.g. decisiveness typic of men and apprehension of women). A literature work which, instead, explains the gender divergencies considering both the socio-cultural and the biological elements is the *biosocial theory* (Ho et al. 2015).

The previous results, moreover, can be explained by analysing the literature concerning the strategic relevance of whistle-blowers, considered as a crucial tool for ensuring social monitoring. Near and Miceli (1985) describe whistleblowing as the practice carried out by employees aimed at denouncing corporate illegal and unethical conduct to persons in charge, who can implement the appropriate punitive measures. By virtue of the increasingly presence of corporate crimes, hardly visible to stakeholders outside the organization, whistle-blowers charge will be considered essential to pursue the social control. Two personal characteristics have been recognized as the main traits characterizing those individuals: from one hand their

powerful emphasis on moral principles and, on the other, their obstinate ethical resistance (Miethe and Rothschild 1999). Different authors in the literature (e.g. Miethe and Rothschild 1999), have stressed how women, due to their greater sense of responsibility towards the society, are more likely to report crimes and any misconducts occurring within the company. For these reasons, they appear, compared to the male counterpart, most of the internal whistleblowers (65% of women compared to the 35% of men).

In such direction, Ramirez's analysis (2003) has observed how the board diversity expresses by female presence can inspire a mechanism of scrutiny. This study, indeed, has revealed the higher propensity to establish corporate rules of conducts whenever the analysis involves companies characterized by boards with three or more women (86 % of boards examined); when such degree of board diversity is non reached only a lower part of companies seems to implement a code of conduct (66%).

The set of the mentioned declarations appears to be in line with another important consideration linked to gender differences in terms of corrupt behaviour; Boehm (2015) states that women seem to be less compliant with corruption practices and this, according to Swamy et al.'s analysis (2001), is also confirmed by considering the inferior level of corruption characterizing the public sector associated with an high presence of women in top management positions and in the workforce in general. A study, carried out using the data from World Values Surveys, has investigated the gender differences in terms of tolerability towards fraudulent or illegal actions: the result has revealed the existence of a gender discrepancy proving the higher level of honesty attributed to women. Indeed, this study has found that females, much more than males, perceive illicit and dishonest conduct as unjustifiable. A significant gender gap has been reached by analysing the answers given to a question concerning the acceptance of bribes during their work: the 77.3% of women, in comparison to the lower 72.4% of men, state that such behaviours are never legitimated. However, Esarey and Chirillo (2013), have observed how such phenomenon is also strongly correlated and influenced by the specific context. Whereas in autocracies scenarios females react to corruption practices with the same intensity as men, in democracies, where it is evident a greater denunciation of the phenomenon under examination, women appear to be less tolerant towards corrupt conducts. In addition, other authors state that such gender differences could be the simple result of the lower women's occasions to adopt corruption behaviours; the gender inequalities that prevent females from overseeing top management roles could be the determinants of these divergencies.

Another issue is related to the general idea that corruption takes place in the context of internal network and that, since women may be foreign or relatively novel to such networks, the lower degree of the corruption associated could be related to the difficulties that these external members have to face into an already defined system. Women, indeed, being reputed new figures may not enjoy the level of trust necessary to pursue these corruptive conducts (Goetz 2007).

Nevertheless, Boehm (2015) has mentioned two elements that could justify the lower female adoption of corruptive conduct:

- **Risk Aversion:** the general idea that sees women as less risk-seeking determines a scenario where females appear more sensitive to the possible application of the anti-corruption method;
- **Reciprocity:** Males, besides relying on internal reciprocity mechanisms much more than females, are more likely to implement reciprocal exchanges to achieve their own interest.

In the following paragraph will be investigated the higher female risk aversion that, as just described, can be considered a determinant element able to explain the previous statements which, in turns, may be reputed valuable arguments that explain the lower reliance on women by criminal organizations.

3.3.2. RISK AVERSION AND ITS DETERMINANT FACTORS

Numerous authors have provided evidence of a greater risk aversion among women. Females are generally involved in less risky conducts and tend to select, among different possible alternatives, the one associated with the lower risk level. To confirm such statement, Martin et al. (2009) have revealed that following the selection of a female CEO the companies experience a significant risk reduction. In line with such thesis, De Cabo et al. (2012) have examined that financial institutions less exposed to risk showed a greater female participation into their board of directors.

A factor that can explain the gender differences in terms of risk aversion is related to the adventurousness level: the literature has stressed how such feature is mainly present in male figures. Therefore, it is possible to think at adventurousness as positively correlated to risk

seeking actions and at women as less exposed to risky behaviours because of their lower level of associated adventurousness.

A tool developed by Zuckman in 1979 to measure the gender differences in terms of risk aversion is the so-called “Sensation Seeking Scale”. Such instrument is composed of 4 sub-elements: thrill and adventure seeking (TAS), disinhibition (DIS), experience seeking (ES) and boredom susceptibility (BS). Through the use of the first sub-scale (TAS) it has been confirmed the result linked to the higher adventurousness rate associated with men. An experiment, carried out on 410 men and 807 women aged between 17 and 23 years, has revealed the higher TAS score for males (7.7) than for women (6.6), testifying the greater male propensity to incur risk.

Another factor positively related to risk taking behaviours is the overconfidence: overconfident individuals undervalue the risk probabilities associated with the performance of a certain behaviour. The literature is rich of academic studies that, examining the gender differences in terms of overconfidence level, attribute a greater overconfidence to the male sex. Females, instead, show a lower level of associated overconfidence that, for instance, is responsible of the higher standards of control required with respect to the various company reports.

According to the *theory of self-control*, moreover, the propensity to risk-taking is also correlated to the self-control factor. An individual with low self-control is characterized by a strong impulsivity that leads him to underestimate the risks associated with his actions. As observed by Huffman, Cohen and Pearlman (2010), it is possible to recognize gender differences in terms of self-control, differences which can, in turn, explain the lower female propensity to incur in criminal conducts. The authors argue that in a situation where both males and females can get the same benefits from joining criminal behaviour, women will be less exposed because, due to the assent of a respectable justification, they adopt a higher level of self-control. According to self-control theory, people tend to commit crime due to the poor ability to self-control.

Campbell, Muncer and Bibel (2001), in addition, have stated that women, compared to men, present a much lower level of acceptance of fear; this distinctive trait will ensure that, in a condition of equal risk supported, females will experience more fear and anxiety than males. The two elements of tolerable fear and risk aversion, together, will affect the behaviours carried out by individuals. As suggested by Gass and Seiter (2003) women, who experience a lower level of supportable fear and are less risk seeking, will tend to avoid situations involving criminal conduct. To better explain this last point, Gottschalk’s work (2013) has argued how women tend to interrupt criminal behaviour from the beginning so as to prevent the

consequences from getting worse. Women, in comparison to men who also admit grey areas, tend to associate each event with white or black. This will determine the birth of a scenario where, while for women it will be very difficult to accept an illegal action as directly associated with black, for men, instead, the possibilities will be greater and described by the grey area.

Therefore, authors such as Gottschalk (2013) support the idea that sees women directors less exposed to criminal activity due to their:

- greater risk aversion level;
- superior self-control level;
- greater sense of shame associated with the participation to the illegal activity;
- perception of higher costs to support compared to the male counterpart.

These features may justify, differently from what is claimed by authors such as Riccardi and Savona (2018), a lower female presence on the board of directors of criminal firms.

3.4 RESEARCH HYPOTHESES

What exposed so far is the evidence provided by the literature about the strategic use of women in criminal companies; it is evident how the previous researches give rise to two distinct hypotheses concerning the female participation in criminal scenario.

Setting the following research question: "*To what extent, compared to non-criminal companies, do criminal organizations use women on their corporate boards?*", the material available in the literature seems not to follow a single direction.

As previously explained, on one hand, authors such as Savona and Riccardi (2018) argue the growing use of female figure in infiltrated legal businesses. They observe that a *red flag* that may reveal a criminal presence it is exactly connected with the ratio of female shareholders and directors. This ratio, in accordance with this line of research, is greater than that associated with the legal economy, due to the growing use of women in the role of straw men and figureheads. The logic at the basis of this statement is strongly correlated to the general idea that women, since less suspicious, can be useful resources to divert judicial authorities' controls on criminal organizations.

On the other side, it is possible to mention another branch of literature that supports the opposite view. The arguments provided by authors such as Steffensmeier, Schwartz and Roche (2013) or Zhang, Chin & Miller (2007) support the thesis that women in criminal companies represent a minor and marginal percentage compared to the legal economy. The higher level of risk aversion and its self-control determinant, the greater emphasis on moral principal and ethical conduct, the higher attention towards social relation and others' needs, the higher level of transparency and truthfulness sought can appear as deterrents to corporate misconduct and criminal activities that lead criminal organizations to preserve a male-dominated corporate board with a reduced presence of female figures.

Therefore, the research analysis that will be developed in the fourth chapter to respond to the above-mentioned research question will investigate over the following two opposing hypotheses:

- 1) *Criminal firms, compared to non-criminal companies, use a higher ratio of women in their board of directors;*
- 2) *Criminal firms, compared to non-criminal companies, use a lower ratio of women in their board of directors.*

CHAPTER 4

EMPIRICAL ANALYSIS

4.1. SAMPLE SELECTION AND DATA COLLECTION

To empirically investigate my research hypothesis, I used, as first database, an excel dataset including a list of 650 criminal firms located in the Central and Northern area of Italy. This is the result of a previous research carried out by Fabrizi, Malaspina and Parbonetti (2017) who have investigated a sample of criminal companies including:

- 1) Companies confiscated by Italian law enforcement authorities due to their connection with mafia organizations;
- 2) Companies that present within their board of director members who have been arrested and convicted of mafia-type crimes;
- 3) Companies that present in the role of shareholder (with a stake of at least 10%) a person arrested and convicted of mafia-type crimes.

The sample of criminal companies involved has excluded partnership due to the unavailability of associated financial statements.

The selection criterion adopted by the authors has made possible to broaden the spectrum of companies considered; the focus of analysis is not only on confiscated companies, wholly owned by criminal organizations, but also includes those business realities that exhibit, to some extent, directors or shareholders condemned because of *art. 416 bis*.

The approach adopted by the authors was to examine the 120 police actions conducted against the Mafia-type organizations in the period 2005-2014, focusing on the Central and Northern area of Italy. The identification of criminal companies has been the result of an analysis process involving official documents such as the pre-trial detention orders and an examination of the associated resulting sentences. The excel database, reflecting the identified criminal companies, exhibits, for each of them, data related to their fiscal code, ISTAT code associate with the municipality's registered office corresponding to the year of execution of the police operation, the year in which the police action took place, the ATECO code expressing the economic industry to which the criminal company belongs and other subordinate figures.

By starting from such database, the first step of my research analysis has been to examine the board composition of each criminal company. I used the official data provided by the Italian

Business Register, exploiting the Chambers of Commerce on-line service *Telemaco*⁴. Focusing my attention on the year immediately preceding the one in which the police operation took place, or for those cases for which the criminal company appeared to be set up exactly the year in which the police operation was carried out, the same year, I was able to examine the composition of the board of each company, collecting data on:

- The total number of the board of directors' members;
- The total number of women within each board of directors;
- The presence of a male or female CEO (indicating the female presence with 1 and the male presence with 0);
- The presence of a male or female Chairman (indicating the female presence with 1 and the male presence with 0).

Considering my research question: “*To what extent, compared to non-criminal firms, do criminal organizations use women on their corporate boards?*”, the next step performed was the creation of a second database including the control group represented by 5 non-criminal companies associated with each criminal firm.

To perform the mentioned task the process implemented has involved the use of the above-cited Chambers of Commerce on-line service *Telemaco* and, in parallel, of the database *AIDA*⁵, through Bureau van Dijk.

The path followed led, first of all, to the identification for each of the 650 criminal companies of a wide control group composed of all the companies operating in the same province and in the same industry (represented by the ATECO code) of the criminal company; starting from the fiscal code of the criminal firm, using AIDA database, I was able to download 361 excel files, each of which presented information regarding the fiscal code, the ATECO code, the province and other economic-financial data of both the control group (non-criminal companies) and the treated group (represented by the criminal firms). Whenever I revealed more criminal firms associated to the same province and industry, I relied on the same control group, represented by the same excel file.

The next step performed has involved the downsizing of the initial larger control group, so that for each criminal firm I was able to identify a control group represented by 5 healthy, non-

⁴ <http://www.registroimprese.it/telemaco> [10-10-19]

⁵ <https://aida.bvdinfo.com/home.serv?product=aidaneo&loginfromcontext=ipaddress> [10/10/19]

criminal companies associated to each criminal entity. To perform this task, I had to apply the statistical technique called "*Propensity Score Matching*". The purpose at the basis of such statistical methodology was to identify for each given criminal company a set of 5 similar legal companies operating in the same industry and province.

Propensity Score Matching is a technique which aimed to generate matched sets of treated and untreated observations which present an associated similar value of the so-defined "*propensity score*". The propensity score, according to the definition provided by Rosenbaum and Rubin (1983a), is the conditional probability of treatment assignment on observed reference covariates. Whenever the focus is on a set of observations associated with the same propensity score, the conclusion at which it is possible to arrive is that the distribution of observed baseline covariates will be the same between the treated and untreated elements.

In performing the statistical technique of the propensity score matching I have used the approach of the matching with replacement: indeed, as observed by Rosenbaum (2002), in applying this technique it is possible to choose between the matching without replacement and with the same. The use of the first method implies that, when it is identified an untreated observation, this untreated subject cannot be used anymore for the match of an additional treated one; the final product will be, therefore, the association of an untreated observation with at most a treated subject. Vice versa, the method with replacement that I have applied provides for the possibility to match the same untreated subject with more than one treated observation.

The technique of the propensity score matching provides two possible distinct criteria useful to select the untreated subject with the most similar propensity score value to that associated with the treated observation: the *nearest neighbor matching* and *nearest neighbor matching within a defined caliper distance*.

Nearest neighbor matching, that I have used, leads to the match of a specific treated observation with the untreated subject which presents the closest propensity score value. The selection of the associated untreated subject will be performed at random in the hypothesis in which more untreated observations expose the same propensity score value. This criterium, does not provide any constrain in terms of the maximum distance allowed between the two groups of treated and untreated subjects.

On the other side, it is possible to cite the method of the *nearest neighbour matching within a defined calliper distance*. It differs with respect to the previous one as it places restrictions in

terms of maximum difference of the propensity score values accepted. Such difference, indeed, cannot exceed a certain fixed limit defined as “*calliper distance*”.

To perform this statistical technique which allowed me to generate a second dataset including the 5 untreated subjects matched to each criminal company, first, I have identified three measures based on which I applied the same methodology. Indeed, the match of an untreated observation with the treated one took place based on the proximity of the two observations in terms of 3 selected parameters:

- Total Assets;
- Return on Assets (ROA) computed as:

$$\text{ROA} = \frac{\text{Operating Income}}{\text{Total Assets}} * 100$$

- Debt ratio computed as:

$$\text{Debt Ratio} = \frac{\text{Total Assets} - \text{Equity}}{\text{Total Assets}}$$

The rationale was to identify for each criminal firm a set of untreated observations similar in term of size, performance and debt.

Therefore, the 361 excel files that I have downloaded from AIDA, including both the treated and untreated observations, next to the information previously indicated concerning the industry, fiscal code and province, also comprised the economic-financial parameters mentioned: with reference to the debt leverage I acted by downloading the equity value and then manually applied the above-mentioned formula. For those criminal companies not present in the AIDA database, I collected the data by *Telemaco* on-line service. As concerns the year used to match the data, it is important to make a clarification: for those criminal companies for which the year before the police operation corresponded to 2009 or a year later, the different economic-financial data downloaded from AIDA referred to the specific year, while for older criminal companies, due to technical limits connected to AIDA, I referred to the first year available.

To allow the recognition of the two distinct groups of treated and untreated variables, I have associated the value 1 for each treated criminal company and the 0 for each observation within the control group. Once carried out such procedure, I have applied the *Propensity score Matching* through the use of the statistical package *Stata*: the product of such methodology has been 282 output excel files, corresponding to a matched set of 3282 companies deriving from:

- 1) A treatment group of 547 criminal firms;
- 2) A control group of 2735, 5 for each criminal company.

Compared to the initial list of 650 criminal firms, the application of the *propensity score matching* has generated some errors; a suitable match has not been found for all the treatment observations and therefore those variables which remained unmatched have been removed from the initial list.

A final matched dataset has been generated using the statistical package *Stata*; this file showed, together, all the criminal firms with the untreated firms associated.

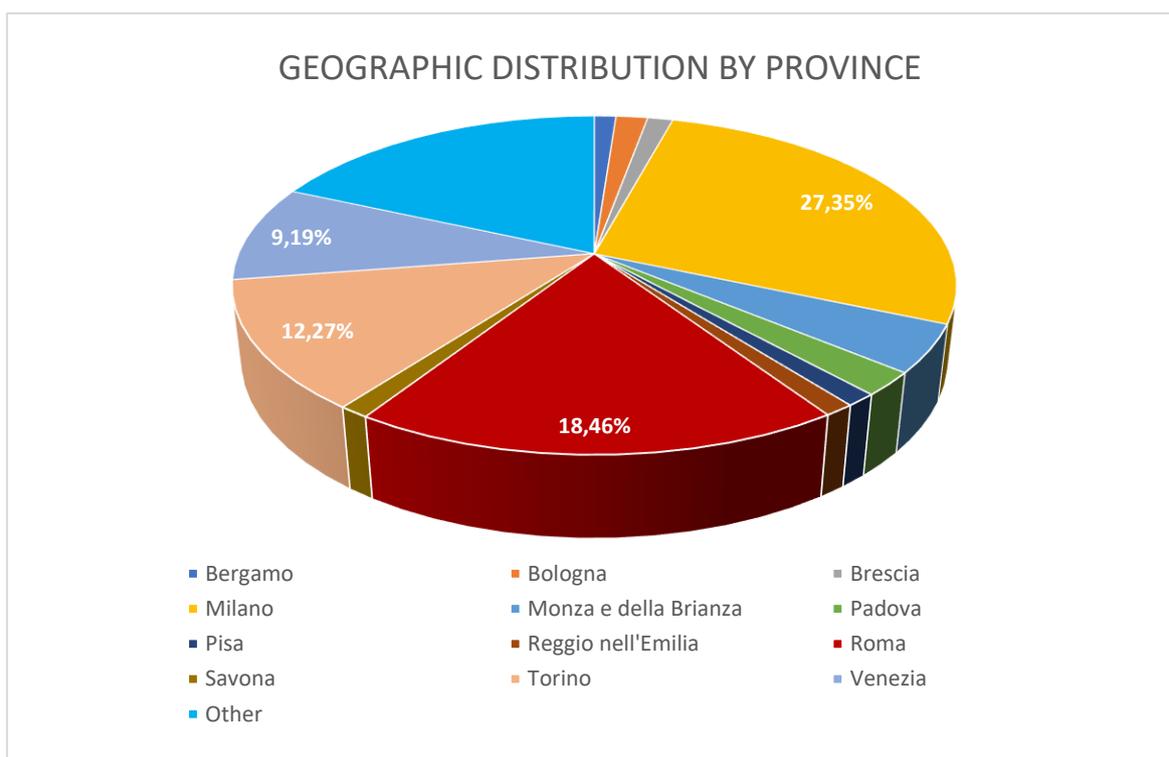
Analysing the data available from the last complete matched file, it is possible to examine the geographical distribution of the firms involved.

The following tables (Tables 4a; 4b) show how the larger concentration of examined companies is reached in the regions of Lombardy, followed by Lazio and Veneto. By focusing, instead, at province level, it emerges that the highest concentration involves the provinces of Milan (27,35%), Rome (18,46%), Turin (12,27%) and Venice (9,19%).

Table 4a: Geographical distribution at Region and Province level

Region	Control Group (Non-Criminal Firms)	Treated Group (Criminal Firms)	Total
Abruzzo	25	5	30
Calabria	10	2	12
Emilia-Romagna	155	31	186
Friuli-Venezia Giulia	20	4	24
Lazio	500	100	600
Liguria	65	13	78
Lombardia	1080	216	1296
Marche	5	1	6
Piemonte	365	73	438
Toscana	110	22	132
Trentino-Alto Adige	10	2	12
Umbria	5	1	6
Veneto	385	77	462
Total	2735	547	3282

Table 4b: Geographic distribution at province level



Source: personal elaboration from the matched set of criminal and legal businesses.

Concerning the main industries involved, instead, it emerges from the Ateco code analysis that the major concentration involved the real estate sector (first 2 digit of the Ateco code: 68) and the building construction sector (first 2 digit of the Ateco code: 41). This is totally in line with what previously cited concerning the preferred sectors infiltrated by OCGs. Indeed, the construction sector appears a strategic choice due to its specific characteristics such as the low levels of technology involved, the high degree of territorial specificity, the importance of human resources, the great reliance on public funds and the high incidence on the procurement process. The preference of such sector is also related to its connections with other business activities that ensure and guarantee to OCGs the possibility to exercise a close control and monitoring of the entire territory; construction companies, indeed, are essential for the creation of other economic activities (e.g. the construction of a supermarket), allowing a capillary penetration within the entire area. However, it is important to observe how criminal firms are almost within any industry, thus demonstrating the unpredictability and the difficulties encountered in detect the phenomenon in question. This is testified by the following table (Table 5) attesting the wide spectrum of sectors involved in my analysis, all associated with the respective Ateco codes:

Table 5a: The distribution by sector *Source: Personal elaboration*

Ateco code	Industry	Frequency
01	Agricultural cultivation	0,58%
10 – 30	Manufacturing Activities	7,00%
35 – 39	Energy and Water Supply; Waste Management	6,27%
41 – 43	Construction; Civil Engineering;	25,20%
45 – 47	Wholesale and Retail Trade; repair of motor vehicles and motorcycles	10,04%
49	Transport	2,96%
52	Storage and transport activities	1,54%
56	Restaurant service activities	4,23%
58	Editorial activity	0,96%
61 – 64	Telecommunications; Software and IT consulting; Information and Financial service activities;	3,27%
66	Auxiliary activities of financial services and insurance activities	0,58%
68 – 69	Real estate activities; Legal and accounting activities	21,24%
70 – 74	Business management; Architecture and engineering; Scientific research and development; Advertising and market research	6,19%
77 – 79	Rental and lesaing activities; Travel agency, tour operators and booking services	1,00%
81 – 82	Services for buildings and landscapes; Support activities for office functions	3,73%
85 – 88	Instruction; Health care; Social care	1,73%
92 – 94	Sports, Entertainments	2,65%
95 – 96	Other personal service activities	0,81%

Once identified, using the *propensity score matching* technique, the control group of untreated companies closer to the criminal ones in terms of size, performance and debt ratio, the next step performed has been the investigation of the board composition also for the 2735 businesses belonging to the legal economy. As previously made for the criminal companies, I proceeded in the same way for the control group, by getting information related to:

- The total number of the board of directors' members;
- The total number of women within each board of directors;
- The presence of a male or female CEO;
- The presence of a male or female Chairman.

Such data have been collected using the Aida dataset: starting from the fiscal code of each company I have investigated the total number of board members, the gender of each and the associated performed role (CEO and Chairman). Regarding the selected year for obtaining such data, I have used the last year available within Aida database due to constraints related to the availability of data offered by the Aida portal. By collecting such data, I was able to add for each company a variable defined “*Percentage of women*” calculated as:

$$\text{Percentage of women} = \frac{\text{Total number of women within each board of directors}}{\text{total number of the board of directors members}} * 100$$

From such examination, as it is shown in Table 6, it emerges that 117 companies out of a total of 547 criminal firms analysed presented a board of directors with at least a woman, whereas a higher incidence (32%) has been registered involving companies belonging to the legal economy (863 out of 2735). Later in the chapter will be better investigated this point that is directly associated with the research question at the basis of my thesis.

Table 6: Board of directors composition

	Non - criminal firms	Criminal firms
At least a woman on the board	31,55%	21,39%
Media Women on Board	23,11%	14,92%
Median Women on Board	0%	0%

Source: personal elaboration from the matched set of criminal and legal businesses.

Additionally, from the data reporting the presence of female CEO, on one side, and female Chairman, on the other, it is possible to examine the frequency distribution of these two dummy

variables (indicating the women with the digit 1 and the men with the 0), respectively in criminal and non-criminal companies (Table 7a; Table 7b):

Table 7a: Frequency distribution of female Ceo and Chairman in criminal companies

CRIMINAL COMPANIES			
FEMALE CEO?	FEMALE CHAIRMAN?		TOTAL
	0	1	
0	471 (86,1%)	3 (0,55%)	474 (86,65%)
1	2 (0,37%)	71 (12,98%)	73 (13,35%)
TOTAL	473 (86,47%)	74 (13,53 %)	547 (100%)

Table 7b: Frequency distribution of female Ceo and Chairman in non- criminal companies

NON - CRIMINAL COMPANIES			
FEMALE CEO?	FEMALE CHAIRMAN?		TOTAL
	0	1	
0	2139 (78,21%)	15 (0,55%)	2154 (78,76%)
1	19 (0,69%)	562 (20,55%)	581 (21,24%)
TOTAL	2158 (78,90%)	577 (21,1 %)	2735 (100%)

Source: personal elaboration from the matched set of criminal and non-criminal businesses.

4.2 DESCRIPTIVE STATISTICS

To perform the statistical analysis and investigate the relationship existing between the criminal nature of the companies and their board composition, it has been created a dummy variable indicating the criminal companies with the value 1 and the non-criminal ones with the 0. Then, for both the criminal and non-criminal companies, the descriptive statistics related to the variable indicating the *percentage of women* on the board of directors and to the 3 financial indicators reflecting the size, performance and debt have been computed.

The results obtained using the statistical package *Stata* are reported in the following table (Table 8), where the values of the mean, standard deviation, 25th, 50th and 75th percentile are shown.

Table 8: Descriptive statistics for criminal and non-criminal firms. Source: Personal elaboration

VARIABLE	MEAN	STANDARD DEVIATION	p 25	p50	p 75
TOTAL ASSETS	4292.013	37184.44	120.136	400.673	1441.243
RETURN ON ASSETS (%)	-.936	38.033	-2.08	1.965	7.8
EQUITY	1088.079	8813.219	10.608	39.125	186.222
DEBT RATIO	.833	1.66	.549	.836	.962
PERCENTAGE OF WOMEN	21.761%	37.546 %	0	0	33.333%

4.2.1 T-TEST AND MEDIAN TEST: FEMALE CEO AND CHAIRMAN

A further carried out analysis involves the variables identified through the use of the online service *Telemaco* and *Aida* database related to the presence within the board of directors of female CEO and Chairman.

It has been examined whether the two groups of non-criminal and criminal businesses showed a difference in the means of the two variables previously exposed. The means of the two groups of treated and untreated observations have been compared performing the t-test in order to understand if the difference between them is statistically significant. For this purpose, it has been verified the null hypothesis (H0) which assumes that the difference of the means is simply casual and that it is not statistically significant. Therefore, in the case of acceptance of the null hypothesis the interpretation to be given is that the criminal nature of the company does not explain the differences in the means relative to the two variables considered (*female ceo and female chairman*). To understand whether to reject the null hypothesis, it is necessary to examine the T-value. The greater the magnitude of **T** (either negative or positive), the greater the evidence against the null hypothesis; as reference, when T is greater than 1,96 or lower than -1,96 the null hypothesis will be rejected and the difference in the means will be explained by the variables taken into consideration or by the error term. The results obtained in the t-test

considering the variable Female CEO and, subsequently, the one represented the Female Chairman are exposed in the following tables (Table 9a; Table 9b):

Table 9a: Ttest result: focus on the variable Female CEO. Source: Personal Elaboration

GROUP	MEANS	STD. ERR.
NON-CRIMINAL FIRMS	.1806771	.0075053
CRIMINAL FIRMS	.1129771	.0123787
COMBINED	.1671742	.0065122
DIFF	.0677	.0162568
<hr/>		
diff = mean(non criminal) - mean(criminal) Ho: diff = 0 Ha: diff < 0 Pr(T < t) = 1.0000	Ha: diff != 0 Pr(T > t) = 0.0000	t = 4.1644 Ha: diff > 0 Pr(T > t) = 0.0000

Table 9b: Ttest result: focus on the variable Female Chairman. Source: Personal Elaboration

GROUP	MEANS	STD. ERR.
NON-CRIMINAL FIRMS	.1800912	.0074915
CRIMINAL FIRMS	.1150307	.0125049
COMBINED	.1671742	.0065122
DIFF	.0650605	.0162883
<hr/>		
diff = mean(non criminal) - mean(criminal) Ho: diff = 0 Ha: diff < 0 Pr(T < t) = 1.0000	Ha: diff != 0 Pr(T > t) = 0.0000	t = 3.9943 Ha: diff > 0 Pr(T > t) = 0.0000

In both the cases, it is visible how the T-value assumes a great magnitude (T = 4.1644; T = 3,9943) leading to the rejection of the null hypothesis and to the conclusion that the differences in means between the two groups of criminal and not-criminal companies are statistically significant. Therefore, it is possible to state that the difference in the means between the two groups may be explained by the variable CRIMINAL reflecting the criminal or non-criminal nature of the business in question.

The same results have been achieved also by implementing the median test. The differences in the median value of the two groups for both the variables involved appear statistically significant. The results obtained are exposed in the following tables (Tables 10a; 10b):

Table 10a: Median Test result: Focus on the variable Female Ceo. Source: Personal Elaboration

GREATER THAN THE MEDIAN	Female CEO?		Total
	0	1	
No	2154	581	2735
Yes	474	73	547
Total	2628	654	3282
Pearson chi2(1) = 17.2616			Pr = 0.000
Continuity corrected: Pearson chi2(1) = 16.7788			Pr = 0.000

Table 10b: Median Test result: Focus on the variable Female Chairman. Source: Personal Elaboration

GREATER THAN THE MEDIAN	Female Chairman?		Total
	0	1	
No	2158	577	2735
Yes	473	74	547
Total	2631	651	3282
Pearson chi2(1) = 15.8870			Pr = 0.000
Continuity corrected: Pearson chi2(1) = 15.4231			Pr = 0.000

4.3 EMPIRICAL MODELS AND RESULTS

4.3.1 SIMPLE LINEAR REGRESSION

After the descriptive analysis, the following step has investigated how the Percentage of women included in the board of directors is affected by the criminal or non-criminal nature of the companies considered.

To investigate my research question I have proceed, using the statistical package *Stata*, firstly by performing the following simple linear regression (Table 11):

$$\text{Percentage Women} = \beta_0 + \beta_1 \text{CRIMINAL} + \varepsilon$$

- The Y is the dependent variable indicating the Percentage of women, calculated as:

$$\text{Percentage Women} = \frac{\text{Total number of women on the board of directors}}{\text{Total number of board of directors members}} * 100$$

- CRIMINAL is the dummy variable which assumes value equal to one when the company in object is criminal and, therefore includes in the treated group, and equal to zero when it is part of the control group including the non-criminal businesses.

Table 11: Simple linear regression with corporate criminal nature as predictor. Source: Personal elaboration

Y	(1) PERCENTAGE OF WOMEN
CRIMINAL	-8.061031*** (-5.12)
CONSTANT	23.10867*** (31.54)
OBSERVATIONS	3282
R-SQUARED	0.0064
Robust t-statistics in brackets *** p<0.01, ** p<0.05, * p<0.1	

From the results obtained in the previous table (table 11), it is visible how the independent dummy variable, reflecting the criminal or legal nature, appears as statistically significant associated to a p-value of 0.000. From a theoretical point of view, when a hypothesis test is performed, it is defined a null hypothesis alongside a threshold value α (usually 0.05 by convention), reflecting the significance level of the test. Focusing on the p-value related to the observed data it is possible to make the following conclusions:

if value $p > 0.05$ the empirical evidence is not sufficiently opposed to the null hypothesis, which therefore cannot be rejected, leading to the conclusion that the observed data are not statistically significant;

if value $p \leq 0.05$ the empirical evidence is strongly opposed to the null hypothesis which therefore must be rejected, leading to the conclusion that the observed data are statistically significant.

The linear regression examined, therefore, explains how the positively significant dummy variable called “Criminal” will impact on the percentage of women presented on the board of directors: the criminal companies, compared to the non-criminal ones, show a reduction in the percentage of women on their board of directors of the 8.06%.

β_0 is the intercept term, that is the expected value of the percentage of women when the value of the criminal variable is equal to 0 and, therefore, the focus is on non-criminal businesses. The coefficient associated to the intercept term of 23,11% is expression of the percentage of women on the board of directors of legal companies.

However, how it is visible from the R-squared value which explains the proportion of variability in the response variable that can be explained using X , it is possible to conclude that, since its value is very close to 0, the presented regression did not explain much of the variability in the response.

Another important consideration and assumption at the basis of the linear regression model is that the error terms present a constant variance: $\text{Var}(\epsilon_i) = \sigma^2$. The compliance of such assumption is crucial because standard errors, confidence intervals, and hypothesis tests rely upon it. However, frequently the mentioned variances are not constant, because, for instance,

the increase in the response value could determine a consequent increase of the variances of the error terms. When the variances in the errors are not constant, it is used the term *heteroskedasticity*. To face with such problem, I have proceeded by setting robust standard errors of the regression's coefficients, avoiding, in this way, to make the statistical inference biased and to get invalid test results.

4.3.2 MULTIPLE LINEAR REGRESSIONS

After the performance of the previous simple linear regression model I have proceeded by adding, as independent variables, the three financial measures, whose effect in the previous case was summarized within the error term. The multiple linear regression is the following:

$$\text{Percentage of Women} = \beta_0 + \beta_1 \text{CRIMINAL} + \beta_2 \text{SIZE} + \beta_3 \text{PERFORMANCE} + \beta_4 \text{DEBT RATIO} + \varepsilon$$

As in the previous model, the dependent variable is the Percentage of women on the board of directors, whereas the control variables considered are the following:

- **CRIMINAL:** is the dummy variable which assumes value equal to one when the company in object is criminal and, therefore includes in the treated group, and equal to zero when it is part of the control group including the non-criminal businesses;
- The variable Performance refers to the Return on Assets (ROA) calculated as:

$$\frac{\text{Operating Income}}{\text{Total Assets}} * 100$$

It takes into consideration the effect of the company performance on the dependent variable in order to control that the differences reported in it are not related to the company performance differences;

- The variable Size refers to the logarithm of the Total Assets for each observation. It reflects the effect of the dimension of the firm on the dependent variable. The use of the logarithm of the Total Assets has been justified by the high variability associated with

such item which is reflected, as visible from the descriptive analysis of the variables, in the high value of its standard deviation. By transforming the Total Assets predictor to its log transformation, the effect will be the most homogeneous distribution of the data in question;

- The variable Debt Ratio computed as:

$$\text{Debt Ratio} = \frac{\text{Total Assets} - \text{Equity}}{\text{Total Assets}}$$

It considers the effect of the company debt ratio on the dependent variable in order to control that the differences reported in it are not related to the company differences in terms of debt ratio.

The following multiple regression taken into consideration adds to the previous control predictors the industry fixed effects, assuming the following form:

$$\text{Percentage Women} = \beta_0 + \beta_1 \text{CRIMINAL} + \beta_2 \text{Size} + \beta_3 \text{Performance} + \beta_4 \text{DEBT RATIO} + \Sigma \text{Industry fixed effects} + \varepsilon$$

The Σ *Industry fixed effects* take into consideration the effect on the dependent variable of the fact that companies analysed belong to different business sectors. Indeed, it's possible to expect that the core activity performed, can influence the composition of the board of directors.

Different industries could be associated with a different inclusion of women with a possible effect on the board of directors composition. For example, sectors such as the education, assistance to the elderly and the disabled, trade in children's clothing and beauty centres, generally, involve in the workforce a higher female concentration.

To control for such business-related characteristics which could impact the dependent variable, a dummy variable has been created for each 1st digit of the ATECO code recorded, which has value equal to one when the firm operates in the industry identified by the specific ATECO code and zero in the other cases.

Finally, a last performed multiple regression has also taken into consideration the geographical fixed effects at regional level:

$$\text{Percentage Women} = \beta_0 + \beta_1 \text{CRIMINAL} + \beta_2 \text{Size} + \beta_3 \text{Performance} + \beta_4 \text{DEBT RATIO} + \Sigma \text{Industry fixed effects} + \Sigma \text{Geographical fixed effects} + \varepsilon$$

Σ *Geographical fixed effects* (at region level) has been introduced to control for those features intrinsic to each region which appear as fixed, definite and undetectable. The rationale at the

basis of the introduction of such control variable is to consider, for the purpose of estimating the regression parameters, the internal variability of each region, avoiding to get spoiled results simply dictated by the different firm's locations. Practically, it has been created a dummy variable for each region involved in the analysis (see table 4) which takes value equal to one when the company operates in the specific region and zero otherwise.

After the description of all the control variables included in the regressions, the following paragraph will show the results obtained.

4.3.2.1. THE RESULTS

Y	(1) PERCENTAGE OF WOMEN	(2) PERCENTAGE OF WOMEN	(3) PERCENTAGE OF WOMEN
CRIMINAL	-7.435*** (-4.22)	-7.585*** (-4.77)	-7.585*** (-4.77)
SIZE (Log-Total Assets)	-.908* (-2.72)	-.640** (-2.01)	-.658** (-2.07)
PERFORMANCE (ROA)	.025 (1.36)	.024 (1.20)	.022 (1.06)
DEBT RATIO	-.268 (-0,64)	-.275 (-1.43)	-.339 (-1.79)
FIXED EFFECTS FOR INDUSTRY		YES	YES
FIXED EFFECTS FOR REGION			YES
CONSTANT	28.734*** (13.5)	27.665*** (3.83)	42.188** (2.04)
OBSERVATIONS	3282	3282	3282
R-SQUARED	0.0091	0.0216	0.0317
Robust t-statistics in brackets *** p<0.01, ** p<0.05, * p<0.1			

Table 12: The multiple linear regressions

The results obtained by the multiple linear regressions models (Table 12) confirm that the dummy variable CRIMINAL is statistically significant, associated to a p-value in each of the

three multiple linear regressions performed lower than 0.01. The response variable “Percentage of women” can be, therefore, explained by the changes involving the dummy variable.

The coefficient associated to such predictor is in the first regression equal to -7.435, indicating that the focus on a criminal business, compared to a non-criminal one, affects the board composition with a reduction of the female inclusion respectively of the 7.44%. By comparing this coefficient to the first one associated to the simple linear model previously analysed, it is possible to state how the specification of the three economic-financial indicators generated an increase in the same: by specifying the three economic-financial predictors the effect of the reduction in the percentage of women on the board of directors of criminal firms is more contained.

The multiple linear regressions, moreover, highlight how also the variable “*Log-Tot Assets*”, which is expression of the size of the businesses involved, is statically significant with an increasingly smaller p-value. This means that the response variable is also affected by the variations of such predictor: an increase of 1% in the Log-Total Assets will determine a reduction of the percentage of women on the corporate boards of the 0.91%, 0.64% and 0.66%.

Concerning the other two economic-financial parameters, instead, all the three multiple linear regression models do not reveal relationship with the dependent variable, leading to the acceptance of the null hypothesis.

By focusing on the multiple linear regressions which include the fixed effects for industry and for regions it is possible to confirm the existing relationship between the dummy variable CRIMINAL and the response variable with a higher strength because, in this way, it has been verified that the value of the variable considered is not affected by the fixed effects of the mentioned parameters.

To identify the fixed effects for industry and for regions 10 dummy variables corresponding to the first digit of the Ateco code and 13 dummy variables corresponding to the involved regions were generated. The dummy variables corresponding to the Ateco code 0 and to the region Umbria have been omitted due to the presence of insufficient observations. The other dummy variables identified, not being statistically significant, lead us to conclude that the *percentage of women* on the corporate boards does not seem to differ between different geographical areas and sectors considered.

4.3.3. LOGISTIC REGRESSION MODEL

To confirm the previous result another analysis has been implemented with a focus on an additional variable defined as: “*Presence of women on the board*”. This is a dummy variable with value 1 whenever the company presents at least one female figure in its directive board, or value 0 when there is an absence of female participation. This dummy variable has been defined as the response variable of the logistic regression model that has been performed. As predictor variable, instead, has been imposed the dummy variable “CRIMINAL”, reflecting with the code 1 the criminal businesses and with the value 0 the legal ones. The logistic regression model instead to model the response “*Presence of women on the board*” directly, acts on the probability that Y belongs to one of the two classes of criminal or non-criminal firms.

The results obtained are the following ones (Table 13):

Table 13: Logistic linear regression. Source: Personal Elaboration

Y	(1) PRESENCE OF WOMEN ON THE BOARD
CRIMINAL	-8.061*** (-5.12)
CONSTANT	23.109*** (31.54)
OBSERVATIONS	3282
R-SQUARED	0.0064
Robust t-statistics in brackets *** p<0.01, ** p<0.05, * p<0.1	

The coefficient associated with the dummy variable “Criminal” is negative, and the related p-value is 0.000, which means that it is statistically significant. The result of the logistic regression model can be interpreted as follow: criminal firms tend to have lower probabilities to have women on their board of directors. In particular, from the table above, it is possible to state that the focus on a criminal business will reduce the *log-odds* of the presence of women within the board of directors of 0.5272633 units. It is important to stress that the provided indication of such reduction is related to the *log-odds*, which is the left-hand side of the following function:

$$\text{Log} (p(X)/1 - p(X)) = \beta_0 + \beta_1 X.$$

To have information about the changes in the probability it is necessary to rewrite the previous equation in this way:

$$p(X) = (e^{\beta_0 + \beta_1 X}) / (1 + e^{\beta_0 + \beta_1 X})$$

Table 14: The probability to have a woman within the board of directors. Source: Personal Elaboration

	MARGIN	T	P> t
NON-CRIMINAL FIRMS	.316	36.17	0.000
CRIMINAL FIRMS	.213	10.97	0.000

By applying the command “*margins*” in *Stata* (Table 14) has been possible to calculate the probabilities associated to the female inclusion within the board of directors of criminal and non-criminal firms. Particularly, it emerges that the probability to have a woman within the board of directors of a criminal firm is the 21.39%, whereas when the focus is on a non-criminal business it rises to the 31.55%.

This result confirms the previous findings indicating the lower female use within the board of directors of criminal firms compared to the non-criminal ones.

4.4. DISCUSSIONS

The research question at the basis of my empirical analysis was the following: “*To what extent, compared to non-criminal firms, do criminal organizations use women on their corporate boards?*”. The centre of my empirical research was, therefore, the examination of the use of female figures by criminal companies within their governing bodies. The analysis of the literature had led to the identification of two opposing research hypotheses: on one side, it is possible to mention the first literature branch supporting the strategic use of women by criminal organizations, especially as figureheads able to divert the suspicions of the judicial authorities, on the other, there was the thesis which supported a marginal and absolutely residual role of

women on the boards of criminal companies. The second, indeed, considered females unsuitable due to a series of characterizing factors including their risk aversion and greater propensity to adopt ethical practices and behaviours.

My empirical research supports the evidence provided by the second branch of literature: the results previously analysed, show how changes in the dummy variable indicating the criminal or non-criminal nature of the company impact, in turn, on the response variable indicating the percentage of women in the company board. Moreover, they describe the direction of the influence on the response variable: by focusing on a criminal company the percentage of women within the board of directors will be lower.

The result supports, therefore, those arguments provided by the literature (e.g. Steffensmeier, Schwartz and Roche 2013) which, describing the women, on one side, as less reliable, faithful and trusty in hiding criminal conducts and, on the other, as less strong from both a physical and emotional point of view, stress the lower propensity to exploit female resources in the governing boards of criminal firms.

At the basis of my result can be found motivations and justifications related to the female emphasis on ethical principles; it, appearing as a deterrent to corporate misconduct and criminal activities, can discourage criminal organizations from using women in the managerial positions of their respective companies.

Female involvement, as suggested by authors such as Shover and Grabosky (2010), on one hand, supports the activity of a careful monitoring (facilitated by the more propensity to establish specific directives and ethical codes) and, on the other, can sustain the creation of a scenario with a lower presence of tempted workers—these are, according to the authors' thought, the two main sources of discouragement from the performance of corporate misconducts.

Beside to contribute to the realization of a more controlled environment, women's more ethical inclinations can be read as a natural barrier to the realization of criminal activities which may justify the lower interest shown by the criminal organizations towards the female sex.

Female sex, moreover, could appear as unsuitable due to its greater risk aversion. The identified gender differences in risk aversion and its determinants such as the adventurousness, self-control and acceptance of fear level, may appear as a further element able to explain the lower use of female figures within the board of directors of criminal firms.

CONCLUSIONS

The aim of this master's Thesis is to analyse how, compared to non-criminal companies, criminal firms use women on their corporate boards. The investigation of this research question led to a previous analysis and literary examination of both the women's role in the labour market and the phenomenon of organized crime.

The progress of women managers in the legal economy has occurred at a quite slow pace. The presence of the so-called "glass ceiling effect" has explained the slowdown of such advancement that, especially in the previous decades, has reduced the opportunities of women to meet positions of power in the corporate scenario. Societal, governmental, internal business, and business structural barriers were the main impediments that hindered women's placement into senior and executive roles. The evidence provided by the literature has highlighted the importance of reacting to this scenario, underlining the contribution of female inclusion on the board of directors.

This master's Thesis, once analysed women's role in the legal economy, has examined the same from another perspective: the one of criminal companies. The evidence provided by the literature presented dubious results: two different lines of thought, leading to two opposite conclusions in terms of women's use within the corporate boards of criminal companies, have been examined. According to some research conducted, criminal companies use women on their corporate boards to a massive extent, especially as figureheads able to divert the suspicions of the judicial authorities. Other studies, instead, conclude that women, who are traditionally more averse to risk, more oriented towards ethical principles and behaviours and weaker from a physical and emotional point of view, do not appear as strategic resources for the organized criminal groups.

To investigate female inclusion within the board of directors of criminal firms, an empirical analysis, involving a final sample of 3242 companies located in the Central and Northern area of Italy, was carried out. The final sample was obtained through the combination of two datasets, the first one comprising 650 criminal companies, and the second one illustrating a control group composed of five non-criminal firms for each criminal organization. The rationale behind the selection of the control group was the proximity in terms of size, performance and debt between the criminal and non-criminal companies. To examine the women's use within the corporate board of criminal firms, the master's Thesis has investigated, through the implementation of a multiple linear regression model, the effects generated by the criminal

nature of companies and other financial indicators (*Total Assets, Roa, Debt ratio*) on the response variable indicating the percentage of women presented on the board of directors.

Consistent with the *gendered focal concerns framework* and with studies carried out by authors such as Steffensmeier, Schwartz and Roche (2013), the results obtained from the multiple linear regression analysis confirm how the underworld crime organizations tend to marginalize the role of women in criminal companies where, compared to non-criminal ones, there is evidence of a lower female presence on the boards.

The same result has been obtained from the implementation of a logistic regression analysis which shows how criminal companies are associated with a lower probability to have a woman on their board of directors compared to non-criminal firms.

According to some authors in the literature, the lower female rate recorded in criminal companies can find justifications in the intrinsic characteristics of female nature: women, on one side, may appear as less reliable, faithful and trusty in hiding criminal conducts and, on the other, as less strong from both a physical and emotional point of view. This may represent the crucial motivation at the basis of the lower use of female figures by organizations criminal groups.

Future research might examine the causal relationship between the percentage of women on the boards and the criminal nature of companies. This master's Thesis has investigated how the criminal factor can impact on the board composition. Future studies might, instead, analyse whether and how the same board composition can, in turn, explain the criminal nature of the company itself.

Additional research might also study the difference of female involvement by type of company or sector considered and by geographical area involved. The literature (e.g. Zhang, Chin & Miller 2007), indeed, has provided evidence of how the organizational context itself influences the degree of female inclusion in criminal networks.

Female involvement in criminal companies may be also affected by the nature and features of the criminal organizations, thus giving rise to another possible research area: the study of the variations in women's participation in the board of directors by type of underlying criminal organization considered.

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