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**“DO PRIVATE EQUITY INVESTMENTS IMPROVE FINANCIAL
PERFORMANCE IN FAMILY FIRMS? EVIDENCE FROM ITALY”**

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INTRODUCTION & SUMMARY

THE PURPOSE OF MY DISSERTATION.

Family firms constitute the predominant corporate form throughout the world as well as the backbone of the private economy (Anderson and Reeb, 2003; Chrisman et al., 2003; Zellweger, 2017), and therefore provide a very large and attractive deal pool for private equity sponsors (Dawson, 2011). Business-owning families share the desire to maintain control over the company (Chua et al., 1999; Poutziouris, 2001) and seek to build a competitive advantage across generations by successfully transmitting family's influenced set of assets (Barbera et al., 2018). However, in many cases they lack the internal financial and managerial resources necessary to grow and thrive in fast-changing, globally-connected industries (Romano et al., 2001; Sirmon and Hitt, 2003); also, they often struggle with the generational change (Miller et al., 2003). By providing the necessary financial resources and managerial capabilities, private equity investors may help family businesses to cope with their challenges, likely unlocking a greater potential as compared to investments in non-family firms, ultimately creating a win-win situation. Nevertheless, the opposing logics, values, and objectives to which the two economic actors adhere seem to impede ex-ante the closing of potentially mutually beneficial deals, or, ex-post, to invalidate the creation of synergies that might positively affect targets' results. The purpose of this dissertation is to add empirical evidence regarding the level of interaction between family firms and private equity funds as well as to assess the impact of family firms' buyouts on targets' financial performance. To this end, an analysis of the existing literature on the topic is firstly presented. Second, data on the actual level of interaction between private equity and family firms in the Italian scenario, which may be considered as

a proxy of the “reciprocal sympathy”, are showed; then, a sample of 60 Italian family firms’ buyouts completed between 2014 and 2016 by national and international private equity investors is thoroughly investigated, considering both accounting and non-accounting data. In particular, for the selected sample of deals, we commit to assess what is the impact on target’s growth, efficiency, capital structure and profitability. Finally, we investigate under which circumstances these deals tend to achieve better results.

CHAPTER 1. The current work starts by focusing on the peculiarities of private equity investments. The main goal of Chapter 1 is to answer some questions related to the private equity activity, i.e. what exactly is private equity? Why are private equity firms relevant? How do they operate? What impact do they have on target companies? Firstly, it provides a broad explanation of how private equity firms are structured and whom they collect money from. In particular, it stresses the differences between traditional investment funds and private equity funds as well as those between the main types of deals made within the private equity industry, namely venture capital and buyouts (Talmor and Vasvari, 2011). Secondly, it presents a review of the literature on the main changes applied by private equity sponsors on portfolio companies, identifying four macro areas of intervention i.e. financial, governance, operational and cultural (Kaplan and Strömberg, 2009; Castellaneta et al., 2018). Finally, it shows evidence about portfolio companies’ performance, that is the impact that private equity sponsors have on their targets.

CHAPTER 2. After providing an overview about how private equity works and the impact that private equity investors have on investee companies, the dissertation continues by contextualising the private equity activity in the world of family businesses. Family businesses are thus presented and defined in the first part of the chapter with the purpose of overcoming common stereotypes associated to them and gaining an in-depth comprehension of the phenomenon. In detail, the discussion develops around the common family firms’ definitions proposed by the literature, the most important influence dimensions shaping family firms e.g. the family, the business and the ownership (Tagiuri and Davis, 1996) and, last, how the interplay of these dimensions affect the set of decisions taken by business-owning families, especially with regard to financing choices. As a matter of fact, family firms do not seem to follow the general laws of corporate finance when in need of additional capital (Zellweger, 2017), but rather family members’ personal preferences

(Gallo et al., 2004; Koropp et al., 2014) mainly linked to the preservation of controlling interests (Poutziouris, 2001). Such demeanour, together with the Socio Emotional Wealth (SEW) loss aversion characterizing owning-families, the common pursuit of non-financial goals (Gómez-Mejia et al., 2007), and the willingness to maintain stewardship roles (Davis et al., 2010), paint a reality that appears far away and in deep contrast with the one of the private equity industry. Nonetheless, with the goal of understanding also what actually links family firms to private equity funds and vice versa, the remaining part of the chapter provides an analysis of the mutual advantages the two actor can access through buyout deals. Last, the chapter delves into other evidence: first, it provides some data on the existing “reciprocal feeling”, in terms of number of transactions between private equity sponsors and family firms; then, it shows what impact private equity investments have had on family firms over the last decades.

CHAPTER 3. The aim of this chapter is that of adding evidence to the existing literature presented in the previous chapter regarding the engagement levels of private equity and family firms, consequently addressing part of our research question. In order to do so, it performs a detailed analysis of the Italian private equity scenario, highlighting the consistently growing relevance of the industry on the one hand, and the great feeling it has with family firms on the other. The analysis, which is based on data provided by PEM[®] for the years from 2014 to 2018, will cover many aspects including, for instance, type of deal origination, deal investment stage, deal geographical concentration, and target financials.

CHAPTER 4. The fourth and last chapter directly addresses the main question of this dissertation: do private equity investments improve financial performance in family firms? It does so by carrying out an empirical analysis of 60 family firms’ buyouts completed in Italy between 2014 and 2016, both by Italian and international private equity houses. More specifically, the work focuses on the most relevant aspects of performance as presented in target firms’ financial reports in the years pre and post-deal, namely growth (in terms of sales and number of employees), efficiency (EBITDA margin, operating net working capital, ROA, ROS, and employees’ productivity), capital structure (financial debt and taxes), and profitability (net income and ROE). The results are then discussed, contributing in this way to the existing evidence on the topic discussed in

Chapter 2. Also, in the remaining part of the chapter we identify 3 groups of companies based on the performance achieved in the years following the deal, allowing for an investigation of the factors that might distinguish a priori successful family firms' buyouts cases from probable failures.

PRIVATE EQUITY AND BUSINESS IMPACTS

1.1 Introduction

The private equity industry is becoming more and more important worldwide: according to most recent global data, in 2019 the total value of private equity investments increased of 10% from the previous year, reaching \$582 billion and capping the strongest five-year run in the history of the industry (Bain&Company, 2019). In Europe alone, the total private equity amount invested in portfolio companies also increased by 10% year-on-year, reaching €94 billion in 2019, which represents the highest value ever recorded (Invest Europe, 2020).

Such an increasing role played by private equity actors in recent years has rapidly generated a considerable interest within scholars who have been studying their characteristics under many point of views. To be more precise, of particular interests have been issues regarding not only the investing private equity firms but also the investee companies and their impact on society as a whole. For instance, some of these scholars focused on the effects on target performance resulting from ownership concentration (Jensen, 1989), the effect on sales and employment growth (e.g. Wilson et al., 2012), the effect on investee's cash flows, profitability, size and productivity (e.g. Guo et al., 2011; Kaplan, 1989; Scelato and Ughetto, 2013), or the ability of private equity funds to generate persistent returns (Braun et al., 2016).

But what exactly is private equity? How do private equity firms operate? what impact do they have on target companies? These are some of the main topics explored in this chapter, which has the goal of providing an in-depth comprehension of the private equity phenomenon. In order to do so, the discussion begins with a broad definition of private equity as a particular type of asset class and continues with a more detailed analysis of private equity firms' activities and private equity funds' peculiarities with respect to traditional

ones (section 1.2). Then, from paragraph 1.2.1 to 1.2.3, the focus shifts to the characteristics of private equity firms in terms of their organizational structure and functioning, in terms of types of transactions that they carry out and in terms of how they end (or exit) their investments. Following, in section 1.3 a detailed overview of how private equity firms improve the financial performance of the investees is discussed. In particular, governance value drivers are covered in paragraph 1.3.1, financial value drivers in 1.3.2, operational value drivers in 1.3.3 and other value drivers in 1.3.4. Last, in section 1.4, an analysis of the current literature about portfolio companies' performance is showed.

1.2 Private Equity

In a very broad sense, “private equity is the name given to that part of the asset management industry where investments are made into securities which are usually not quoted in the public markets” (Talmor and Vasvari, 2011). More in particular, Invest Europe, formerly known as the European Private Equity and Venture Capital Association (EVCA), defines the private equity activity as follows:

«Private equity makes long-term investments into small, medium and large companies with the aim of making them bigger, stronger and more profitable. Specialist investment managers with intimate knowledge of running companies help to build better businesses by strengthening management, improving operations and expanding into new markets. The profits of the improvement are shared among the underlying investors and the specialists whose skills contributed to the company's success. Venture capital is private equity investment that is focused on start-up companies. VCs back entrepreneurs who have bright ideas but need finance and expertise to get their companies off the ground and grow.» (Invest Europe, n.d.).

As further explained in the following sections, the investments to which the definition above refers to initiate by raising private equity funds i.e. financial instruments that collect resources from specific types of individuals and organizations. Consequently, the main role of private equity (firms) is to provide investment advice to the private equity funds - created in joint partnership with the investors - in order to deploy the amount of resources gathered into the above mentioned activities. Such firms, which act as a general partner of the funds, also execute the investments decisions, oversee the funds' investments, and receive fees for these services (see section 1.2.1 for further details).

At the end of 1980s, private equity firms were described as lean, decentralized organizations: on average, they were composed of just more than 10 investment professionals and employees, mostly coming from an investment banking background (Jensen, 1989). In more recent years instead, the average private equity firm is more structured, sometimes hiring more than 100 investment professionals coming with a largely wider set of skills and experiences as compared to the late 1980s (Kaplan and Strömberg, 2009). The reasons for such development are most likely linked to the evolution of the private equity activity, which underwent a progressive shift from a financial focus only for its investments to an integration of financial and operating aspects, as explained in the upcoming sections of this chapter. However, before going more in details on the operating features of such firms, noteworthy is how private equity funds largely differ from traditional investment funds.

Traditional investment funds are defined by the European Commission as follows:

«Investment funds are investment products created with the sole purpose of gathering investors' capital, and investing that capital collectively through a portfolio of financial instruments such as stocks, bonds and other securities.» (European Commission, n.d. a)

Therefore, if we compare the investments - and the investments in stocks in particular - between the two funds, great differences clearly emerge. Indeed, private equity fund managers normally aim at controlling the businesses they participate in, steering them in the directions explained by the definition of Invest Europe. Whereas, traditional fund managers collect only small minority stakes of the companies they invest in, without pretending to have an impact on their activities. Coherently, private equity fund managers operate with much more information, control and ability to influence the incumbent management as compared to traditional funds managers (CACEIS, 2010). A summary of these and other differences between the two type of funds can be found in Figure 1 below:

Figure 1: Private equity fund versus traditional fund

	Private equity fund	Traditional fund
Investors	Restriction to few investors: pension funds, banks, family offices, etc.	Numerous public investors (retail market).
Control and influence	Substantial or controlling stake in the business.	Small minority stakes, no control nor special rights.
Financial structure of investments	Use of debt is possible; Personal investment of funds managers in the companies they manage.	No debt as part of the investment; No personal investment of fund managers.
Information prior to investment	Substantial financial, commercial and legal due diligence is performed by private equity firms prior to making any investment.	Access to publicly available information only.

Source: Adapted from CACEIS (2010)

Next, from paragraph 1.2.1 to 1.2.3 we will focus on how private equity firms are organized, how the funds are raised and how long they last, how the actors involved are remunerated for their work and the risks taken and, finally, on how private equity firms typically exit from the investments they make.

1.2.1 Organizational structure and functioning

Normally, a private equity firm is organized as a partnership or a limited liability company (Kaplan and Strömberg, 2009). The limited partners - pension funds, banks, endowments, high-net-worth-individuals, family offices, etc. - provide the equity capital to the private equity firm, which is managed by the general partners. The total amount of capital already in the fund (together with the amount promised to the fund) is called “committed capital” and, on average, the investment period or “commitment period” lasts five years, while the life of the fund is normally ten years since it also includes the so called “harvest period” (Iannotta, 2010; Kaplan and Strömberg, 2009). This means that the Private Equity firm has five years to invest the committed capital into target companies and an additional period of five years to return the capital to the limited partners. However, the life of the fund in certain cases can be extended for a period up to three additional years (Kaplan and Strömberg, 2009).

During the investment period, the general partners look for and implement investments opportunities in line with the fund’s vision. When they identify an appealing investment they “call” money from the limited partners (up to the committed amount) and devolve it

to the target company. In the industry such capital calls are referred to as “drawdowns” and they contribute to the building of the fund’s portfolio, namely the group of target companies (Iannotta, 2010). Notice that “after committing their capital, the limited partners have little say in how the general partner deploys the investment funds, as long as the basic covenants of the fund agreement are followed” (Kaplan and Strömberg, 2009). During the harvest period instead, the general partners exit the investments of the fund and distribute the net returns to the investors. Investors may receive the proceeds from the investment either in shares or cash. Also, the distribution of such proceeds between them and the general partners normally follow a waterfall approach, meaning that first, the limited partners will be given back the capital invested in the fund, second, investors might be paid an extra return on that capital, and third, after the first and second point have been satisfied the general partners can start to collect the carried interest (Talmor and Vasvari, 2011) (see below for an explanation of the carried interest).

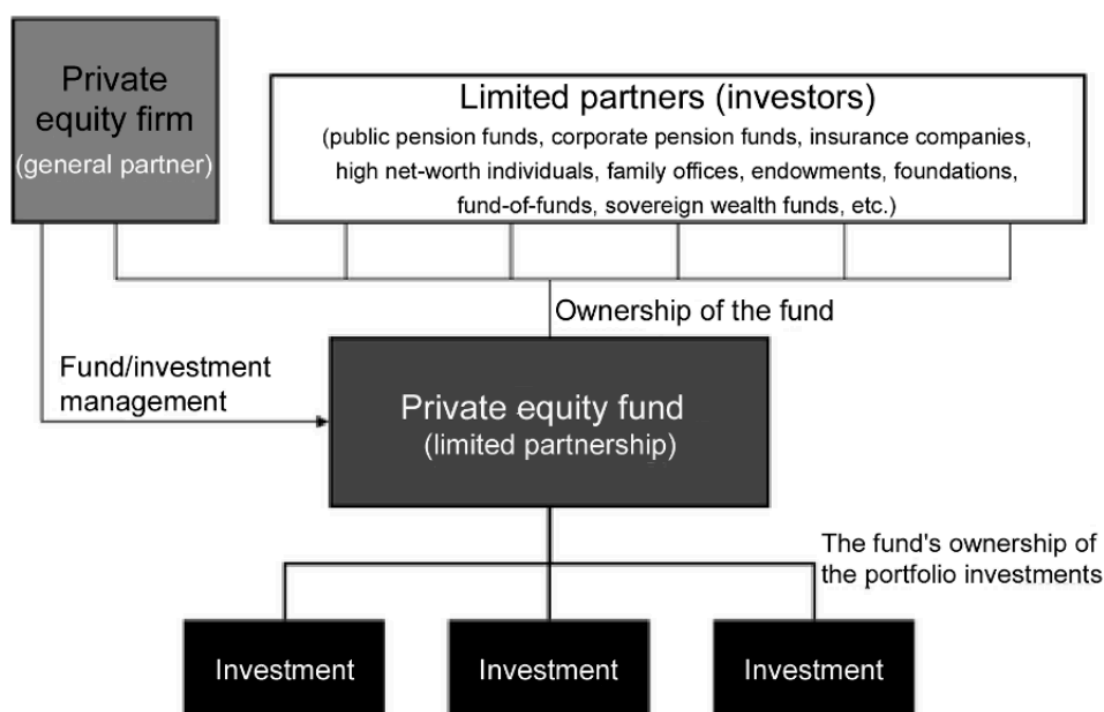
To make a fund attractive not only must the fundamental investment strategy appear solid but the limited partners must believe in proper alignment of interest between them and the general partners. According to Talmor and Vasvari (2011), the alignment is normally achieved in several ways, for instance: 1) reputation; 2) equity interest; 3) incentive scheme; 4) direct control mechanisms. In detail:

- 1) Reputation: limited partners value general partners who were able to achieve a consistent and favourable track record in raising new funds. Also, they seek funds that are persistent in their performance, contrary to what happens in the public market. Thus, reputation and the ability to meet stated objectives in the long run is a critical factor for any fund;
- 2) Equity interest: in order to avoid conflicts of interest, general partners usually have their “skin in the game”, namely they contribute to raise a share - in general no less than 1% and up to 10% - of the total equity capital of the fund;
- 3) Incentive schemes: general partners receive compensation based on the performance of the fund. Under such pay-for-performance scheme the largest share of their expected compensation come from the profits made on the investments, the so called “carried interest”. However, the general partners are commonly compensated in other ways: first, they receive a management fee of around 2% of the committed capital. Second, they eventually collect a share - around 20% - of the profits of the fund, which is the already

mentioned “carried interest” (in the industry, this is known as the 2 - 20 fee structure). Third, some general partners may charge a deal or monitoring fee on their investments; 4) Direct control mechanisms: limited partners normally secure direct control mechanism over the private equity fund and participate in the advisory board. Such control mechanisms often foresee the adoption of specific covenants that place restrictions on a fund’s investments and on other activities of the general partners; for example, some covenants introduce limits on the percentage of the fund’s capital that can be invested in a single target firm. Covenants may also preclude investments in publicly traded and foreign securities, derivatives, other private equity funds, and private equity investments that deviate significantly from the partnership’s primary focus.

To conclude, Figure 2 below synthetically illustrates the functioning of a private equity firm:

Figure 2: Functioning of a private equity firm



Source: Talmor and Vasvari (2011)

1.2.2 Transactions

As can be understood from the definition provided above, private equity firms operate through many different transaction types, the most common areas of distinction being venture capital and buyout investments (Talmor and Vasvari, 2011).

Following the European definition, venture capital investments are not meant to buy an existing business but rather to fund the development of a new one: their role is to fill the gap between the need of funds for innovation and the traditional sources of capital (Zider, 1998). They do so in three different stages of a business: early-stage, expansion-stage and late stage (Iannotta, 2010), for which an explanation is also given in Figure 3 below. In a nutshell, the venture capital strategy focuses on “building businesses by investing in companies in the conceptual stage or companies where products have not yet been fully developed and where revenues and/or profits may be several years away” (CACEIS, 2010). Consistently with the high level of risk involved in these type of deals, venture capitalists expect a rapid internal growth and a high rate of return, normally between 25% and 35% (Zider, 1998). Venture capital investments play an important role especially in the US, while in the European market their activity is still marginal (Iannotta, 2010).

On the other hand, buyout investments represents the largest category of private equity activities in terms of funds under management worldwide and, contrary to venture capital deals, they generally target mature firms in the late stages of their lifecycle (Iannotta, 2010). In a typical buyout, the acquisition of the target company is carried out mainly by borrowing financial resources, with the typical financing structure composed by a 25-50% part of equity and the remaining 75-50% part of debt (Iannotta, 2010). Other authors noticed that the level of debt might also consist of 60-90% of the total capital of the target (Kaplan and Strömberg, 2009), hence the often heard term leveraged buyout. However, after the credit crunch that followed the 2008 financial crisis, the latter levels are less likely to be observed since private equity firms were force to use lower level of leverage in their operations (CACEIS, 2010).

As a consequence of the average high levels of debt involved, not all firms are suitable for a buyout and specific characteristics are required in the potential targets. Consistently, Talmor and Vasvari (2011) and Iannotta (2010) identify the (perfect) buyout candidate in a firm that presents predictable strong cash flows, growth opportunities, and a strong asset base. Going more in depth, predictable and stable cash flows are necessary to service

interests and principal repayments linked to debt contracts. Thus, buyout investors look for a company that have the following features which, among others, are generally linked to stable cash flows (Talmor and Vasvari, 2011):

- A long history of stable operating cash flows
- A leading or defensible market position
- Strong brand names
- Stable customers' demand.

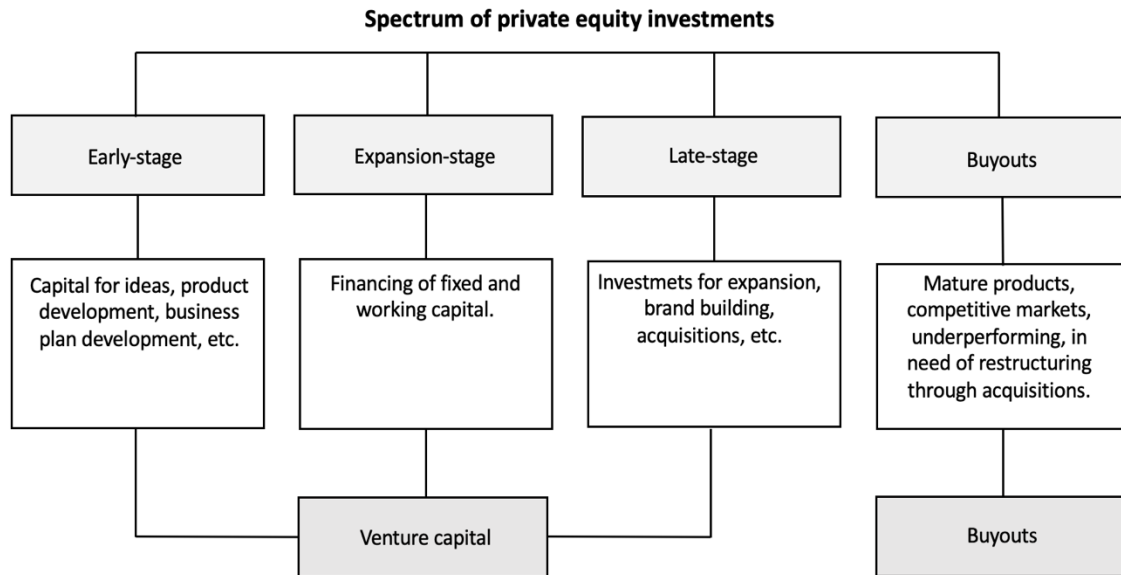
Following, growth opportunities that can be generated by the private equity funds ensure that the target company will be able to grow during the holding period. This accelerates debt reimbursement and, thanks to the generation of higher EBITDA allows the company to meet all debt covenants. However, since the outstanding debt is reimbursed only when growth is actually realized, it is more difficult to convince banks to finance this type of buyouts (Iannotta, 2010).

Last, a strong asset base (namely a large amount of tangible assets with high market values and high levels of liquidity) is often required since it facilitates the raising of debt at more convenient conditions. The main reason is that banks offering debt can use such asset base as a collateral, therefore lowering their risk on loans. Plus, a strong asset base is also seen as a barrier to entry for potential competitors, which contributes to strengthen cash flows (Talmor and Vasvari, 2011).

Another important aspect that differentiates buyouts from venture capital investments is the amount of equity stake bought. Indeed, most buyouts acquire a majority stake in their targets, whereas venture capitalists normally focus on minority investments.

A non-exhaustive summary of the main differences between venture capital and buyout investments can also be found in Figure 3 below.

Figure 3: Private equity investment stages



Source: Adapted from Iannotta (2010)

Apart from the definitions and concepts proposed above, in order to better understand the analysis that will be made in Chapter 3 and 4 it is now useful to introduce the type of transactions to which the Private Equity Monitor (PEM[®]) - an Italian observatory of the private equity market - refers, namely: 1) Expansion, 2) Replacement, 3) Turnaround, and 4) Buyout. The AIFI (Italian Private Equity, Venture Capital and Private Debt Association) provides the definitions for such terms in its website, which are reported below:

- 1) Expansion: “financing provided for the growth and expansion of an operating company, which may or may not be breaking even or trading profitably”;
- 2) Replacement: “purchase of existing shares in a company from another private equity investment organization or from another shareholder or shareholders”;
- 3) Turnaround: “financing made available to existing business, which has experienced trading difficulties, in order to re-establishing prosperity”.
- 4) Buyout: “Acquisition of a company by a private equity player and the operating (MBO – Management Buyout) or an external group of managers (MBI – Management Buyin). The financial technique often includes the use of a significant amount of debt”.

Such categorization and definition is slightly different from the one summarised in Figure 3. According to PEM[®] and AIFI, that of private equity and venture capital are two distinct

activities: the former focuses on the four transactions just described, while the latter focuses solely on early stage investments. In other terms and with reference to Figure 3, PEM[®] and AIFI consider to be venture capital investments only those made in the early-stage section. Investments in the expansion-stage, late-stage and buyouts instead are all considered within the private equity activities. Moreover, some additional forms of investments - namely replacement and turnaround, which normally are included in the broader category of buyouts - are considered separately.

Since the analysis made in Chapter 3 and 4 focuses on buyouts (as meant by PEM[®] and AIFI) involving Italian Family Firms, the literature presented in the following sections of this work is also focused more on buyouts features rather than on venture capital ones.

1.2.3 Exit options

As explained above, the mean through which private equity investments are made is the limited partnership, which typically has a lifespan of ten years from its establishment. Within this timeframe general partners are expected to exit their positions in the portfolio companies in order to return the limited partners' investments. Therefore, an exit strategy is the process through which private equity funds realize the returns on their investments; it is one of the key steps of the value generation process and thus one of the most critical choice faced by such funds (Jenkinson and Sousa, 2015).

There are important differences among exit strategies adopted by venture capital funds and buyout funds. In the venture capital scenario, investments are typically founded entirely with equity and exit can be achieved through a sale to another private equity fund with the aim to further develop the business, through a trade sale to a corporation, or, in the case of very successful investments, through an IPO (Initial Public Offering) (Talmor and Vasvari, 2011).

Buyout investments, on the other hand, have a wider spectrum of exit opportunities; the reason is that in these cases the initial acquisition is made with the utilisation of large amounts of debt, which allows for recapitalization of the investments or dividend out proceeds without reducing their equity stake. In brief, according to Talmor and Vasvari (2011), six exit strategies could be identified following a buyout: 1) Trade sale; 2) IPO; 3) Secondary buyouts; 4) Recapitalizations; 5) Share repurchase; 6) Breakups and liquidations.

- 1) Trade sale: the target company is sold to or merged with another company in the private or public market.
- 2) IPO: the shares of the target company are offered in the public market through a new stock issuance.
- 3) Secondary buyouts: the portfolio company is sold to another private equity fund. The portfolio company's shares can also be sold via private placements to institutional investors that are not classified as private equity funds.
- 4) Recapitalizations: the private equity firm raises additional debt (and possibly also additional equity capital) in order to exit only a portion of the current equity stake in the portfolio company.
- 5) Share repurchase: the portfolio company's shares are bought back by the company and/or its management from the private equity fund.
- 6) Breakups and liquidations: in the case of unsuccessful investments the target companies are liquidated and sold piecemeal.

Despite many of the existing researches focus on IPOs, this is not the most common exit option adopted by private equity funds. According to Kaplan and Strömberg (2009), who analysed the exit strategies on a sample of buyout transaction in the U.S., the most common exit option is the sale of the target company to a non-financial (strategic) buyer - this occurred in 38% of the cases. While the second most common exit route is the secondary buyout, in 24% of the cases. IPO instead - whose popularity seems to be decreasing over time - was chosen in 14% of exits. Similar findings for the European market are shown by Jenkinson and Sousa (2015). In the analysis of 1022 private equity exits between 2000 and 2014, they found IPOs to be quite uncommon among private equity funds, with the majority of exits represented by trade sales or secondary sales. In particular, in the sample analysed around 43% of the exits were secondary sales. However, as previously noticed also by Axelson et al. (2013), Jenkinson and Sousa (2015) found evidence that the choice between exit options is heavily influenced by the conditions in the debt and equity market. In particular, rising equity markets are associated with a preference of IPO over secondary sales. Whereas, when debt is cheap and available in great quantities and private equity companies have large amount of capital to invest their preference moves towards secondary buyouts.

1.3 How Private Equity firms improve performance in their targets

For the private equity industry to function, namely for it to be able to create value through the investments on and exit from target companies, certain conditions must be present. Normally, the identified target companies must have room for improvements, for example, due to an inadequate financial management, the presence of agency costs, the lack of focus on value creation or, more in general, the presence of an inadequate ownership or management team. It is by acting on improving these aspects that the private equity industry tries to extrapolate value from its investments.

Consistently, Kaplan and Strömberg (2009) identify some areas of intervention on which private equity firms focus on their targets in order to improve their performance: they can be categorized as governance, financial and operational value drivers. Interventions on these three areas and a literature review of their impact on target firms are discussed from paragraph 1.3.1 to 1.3.3.

Other studies instead (Castellaneta et al., 2018; Gompers et al., 2015; Hannus, 2015), identify additional areas of intervention (or value drivers) on which private equity also tend to focus, which are related, in most cases, to corporate culture aspects. These are discussed in paragraph 1.3.4.

1.3.1 Governance value drivers

Governance refers to how a company is directed and controlled and to how rights and responsibilities are distributed among the different corporate bodies and players (Zellweger, 2017). Therefore, governance engineering concerns all the changes applied to the organizational structure of a company (Kaplan and Strömberg, 2009), such as board composition, incentives to management team, and monitoring and control activities. One of the pioneers in this field of study is Jensen (1989), who argued that separation of ownership and management generates a wide range of agency problems, such as ineffective internal oversight, managerial entrenchment and operational inefficiency. However, recent findings show that private equity firms create value through governance engineering not only by increasing ownership concentration, but also by adopting strategic, operational and incentive changes in board representation (Achleitner et al., 2010), which altogether are linked to a reduction in agency problem related costs (Castellaneta et al., 2018).

There are many authors supporting this last point. For instance, Cumming et al. (2007) demonstrate that private equity interventions are associated with incentive and governance mechanisms that contribute to increase performance. Also, Hannus (2015) argued that “although the changes brought about in corporate governance rarely directly affect the profit drivers, they often have widespread internal effects, which result in performance improvements”.

Moreover, Kaplan and Strömberg (2009) noticed that private equity houses care particularly about the management and shareholder’s alignment of interest and the composition and activity of the board of directors. Such objectives are pursued with different strategies: in the first place, the alignment of interests is achieved through incentive mechanisms i.e. private equity firms normally require the management team of the target to make relevant investment in the equity of the company. Not surprisingly, the results of the target and its managers are often linked with stock and option based compensation systems; in fact, in the same study, Kaplan and Strömberg (2009) show that the average CEO gets 5.4% of the equity upside while the management team gets 16%. Coherently, Leslie and Oyer (2008) found that managers’ compensations in firms participated by private equity funds are lower than the average in their fix components, while higher in the variable ones.

In the second place, to better align the interests of (new) owners and managers the activity of private equity firms many times also explicates with the recruitment of additional external managers linked to the private equity house. In this sense, Gompers et al. (2015) show that around 50% of private equity investors work with their own senior management team involved in the targets after the investments. Additionally, Acharya et al. (2012) found evidence that one third of CEO are replaced in the first 100 days of activity of the funds and two third at some point over a four-year period.

Also, private equity investors are generally very concerned about being active members of the board of directors of their target firms. Findings by Gompers et al. (2015) suggest that the average private equity player is actively involved in all of its deals, and that it will take around 3 of the board seats where a board of directors has between 5 to 7 seats in 90% of the cases. In addition, private equity participated boards are very active: they normally set up around 12 formal meeting per year and have many more informal contacts (Acharya et al., 2012).

Continuing, Gadiesh and MacArthur (2008) describe how the active ownership model adopted by private equity funds - and partially described above - works in practice. The partners identify the following six stages in the model: 1) Define the full potential of the firm; 2) Develop the blueprint 100-day plan; 3) Accelerate performance; 4) Harness the talent; 5) Make equity sweat; 6) Result-oriented mind-set. More in detail:

1) Define the full potential: in this stage a due diligence is performed in order to understand what could be the maximum value that could be created in the target company. The due diligence will therefore aim at identify strategic opportunities for value creation and a potential range of the future value.

2) Develop the blueprint 100-day plan: one of the key features of private equity funds is the ability to identify the activities that create the most value and to obsessively stick to them. The funds 'managers will write down every one of this activity and what has to be done differently from day 1. This will let the funds avoid wasting time on low value adding activities and to maximise returns.

3) Accelerate performance: the private equity firm should implement structural and organizational changes in the target companies in order to align it with the objectives of the blueprint and obtain the desired performance. At the same time such performance must be measured with the identification and monitoring of few critical KPIs (Key Performance Indicators).

4) Harness the talent: in order to guide the talent, it is necessary to align the investor's and management's interests thanks to dedicated rewards mechanisms that encourage managers to embrace the activities described in the blueprint. Such rewards mechanisms are, for instance, those previously described.

5) Make equity sweat: this is mainly done with the application of LBO (Leveraged Buy-outs) economics, which comprehend the usage of high levels of debt as a discipline mechanism to reduce the cash flow problem and the extended focus on and management of working capital. A more detailed description of this point is presented in the next paragraph.

6) Result oriented mind-set: private equity culture is strongly based on a result-oriented mind-set. In LBO deals in particular, private equity firms pay great attention to aspects such as earnings, margins and cash; they closely monitor performance and continually adjust their activity in order to maximize value creation.

1.3.2 Financial value drivers

Moving to the financial level of intervention, the most relevant aspect to consider is the large amount of debt normally raised in connection with the buy-out transactions.

Firstly, debt creates a strong pressure on future cash flows due to interests and principal payments. This is seen as a value driver since it reduces the “cash-flow problems” described by Jensen (1986), who argued that the management of profitable firms tends to dissipate financial resources rather than returning them to shareholders. Particularly in companies with positive, stable cash flows and few growth opportunities, the management tend to devolve financial resources to investment projects or acquisitions that boost growth without creating value. High levels of debt contribute to curb such a behaviour: regular payments required by the scheduled interests and principal obligations serve as a discipline mechanism and, since in such situations managers are also more exposed to the personal cost of bankruptcy, they ensure that the firm keep to perform and run efficiently, focusing on value creating activity (Cotter and Peck, 2001; Kaplan and Strömberg, 2009). Secondly, high levels of debt in some countries are linked with higher tax deductions i.e. a higher tax shield. Not surprisingly, capital structure optimization often aims at minimize the after-tax cost of capital by trying to exploit the advantages of interest payments deductibility. Kaplan (2009) consider that it is reasonable to assume that lower taxes due to higher interest expenses account for 10 to 20 per cent of the firm value (depending on the level of corporate tax rate and level of debt involved). However, despite scholars confirm that the tax shield effect creates substantial value for the company, many also consider it a source of value capture rather than value creation (Hannus, 2015). The logic behind this argument is that any tax advantage is linked to an immediate wealth transfer under a societal perspective and not to the creation of new value.

On the other side, though, too high level of leverage (“debt overhang”) can either directly limit the growth potential of a company by inhibiting the operational, strategic and governmental flexibility of the management or, indirectly, due to strict covenants imposed by lenders (Berck and DeMarzo, 2007). In more practical terms, debt overhang translates in missed profitable investment opportunities - especially when the NPV (Net Present Value) is positive overall but present a negative short-term cash flow effect - and a progressive erosion of shareholder wealth (Stulz, 1990; Grant, 2011 in Hannus, 2015). However, as a counter argument, scholars also show that there is no evidence that buyouts are

associated with a decrease in investments in innovation (Lerner et al., 2011), which for their nature need many years before showing positive cash flows.

A possible explanation of why high level of debt in private equity targets do not seem to represent a particular problem can be twofold. In the first place, private equity houses often benefit from both a well-developed network of contacts in the financial industry and from a great financial expertise. Studies found that thanks to a broad network of contacts among investment banks and other financial players, private equity partners can often obtain loans and other debt products at better terms and conditions with respect to industrial buyers (Magowan, 1989; Kaufman and Englander, 1993; in Hannus, 2015).

In the second place, private equity houses manage debt with a series of financial instruments and techniques generally referred to as financial engineering (Hannus, 2015), which allow for a reduction of “debt overhang” problems in the targets. The latter include, for instance, the adoption of debt packages that differ both in terms of seniority and collateralization, such as “revolving credit facilities”, “Term Loan A”, or “Mezzanine debt”, all of which are often used in the private equity industry in order to both reduce bankruptcy risk and to better allocate the pressure on cash flows over time. An example of the average capital structure and of the instruments used to build it in buyouts can be seen in the Figure 4 below.

Figure 4: Capital structure of private equity targets

Standard and Poors' computed averages for the period 1999-2008

			Seniority	
Debt	70%	Senior	45%	
		Revolver facility Senior term debt Tranche A Tranche B Tranche C Tranche D		
		Junior	20%	
Mezzanine	5%	Convertible debt		
Equity	30%	Preferred stock Common stock		Low

Source: International Private Equity (2011)

Following, a description of the main feature of the debt instruments listed in the figure above is presented.

A revolver is a form of senior bank debt that acts like a credit card for companies. It serves to fund working capital, capital expenditures, acquisition lines of credit, add-on acquisitions. A company will "draw down" the revolver up to the credit limit when it needs cash, and repays the revolver when excess cash is available.

Senior term debt typically requires full repayment over a 5 to 8-year period. It will contain more stringent debt covenants which require the target company to maintain a designated credit profile based on financial ratios such as the leverage ratio, interest service coverage ratio, and debt service coverage ratio. In addition, the covenants may severely restrict the operational flexibility of the company by not allowing, for instance, asset disposition or the contraction of additional debt.

Term Loan A is a debt that must be amortized, normally over 5 to 7 years.

Term Loan B normally requires a repayment over 5 to 8 years. The peculiarity is that it allows the borrower to postpone the payment of largest part of the loan (bullet payment) in the last year.

Apart from Term Loan A and Term Loan B other tranches of senior debt with lower seniority might be issued.

Subordinated debt may be raised in the public bond market or the private institutional market, carries a bullet repayment with no amortization, and usually has a maturity of 8 to 10 years.

High-yield bonds are an additional and more expensive source of financing that may be used if senior debt is not enough. Because of the high risk associated with a buyouts transaction, such bonds are usually non-investment grade or “junk bonds”. The typical term of these bonds is 6 to 10 years (they usually mature after the senior debt).

Mezzanine debt is typically adjusted to meet the financing needs of the specific buyout. As such, its strength is that it allows for great flexibility in structuring terms. It typically has embedded warrants attached and provides between 0% and 5% of the total funding needed. Interests on mezzanine debt can be paid either through cash or “pay-in-kind” toggle.

The equity capital in an LBO comprises 25% to 50% of the total capital and it provides a cushion to lenders and bondholders in the event that the financial condition of the buyout target deteriorates.

1.3.3 Operational value drivers

Operational value drivers are linked to the operating and industry expertise that private equity firms can exploit in order to create value. Interventions on operational value drivers are a relatively recent aspect of the private equity activity which, in its first years (1980s), mainly relied on financial ones.

Since the 1990s, many private equity houses started to adopt a strong focus around specific industries and to collaborate with experts having industry-specific operating backgrounds. Plus, private equity investors often started to provide the direct expertise of professional managers able to improve the deployment of the firm’s existing resources, consequently increasing its competitive advantage. In line with this, Wright et al. (2001) highlighted how most of the value in buyouts transactions is created through operational improvements. More recently, research on this field also showed that focusing on financial aspects has not been enough for sustainable value creation in target firms while acting on operational levers has consistently allowed private equity funds to achieve positive results (Wright et al., 2006).

The effect of private equity on operations has been studied under many aspects. Considering productivity metrics, Davis et al. (2014) found that private equity backed firms in the U.S. (on average) increase the TFP (Total Factor Productivity) by 2,1 log points compared to non-backed peers. The increase is mainly due to the fact that targets do not hesitate to close plants that are not productive and to open new ones in the upper part of the TFP distribution. In short, private equity funds are able to achieve higher productivity metrics thanks to a more appropriate allocation of resources among business units of the targets (Davis et al., 2014). Other empiric evidence, for instance, comes from Cumming et al. (2007) and Scellato and Ughetto (2013), whose results show how buyouts are associated with better resources usage. Also, a study by Alperovych (2013) indicates how management buyouts improve efficiency in target firms from 2 years before the transaction (allegedly because of the preparation towards the deal) to 4 years after. Plus, similar findings were already highlighted by Lichtenberg and Siegel (1990), who noticed significant cost reduction and productivity enhancement in manufacturing firms participated by private equity funds. Continuing, Harris et al. (2005) extend the just mentioned study by considering a larger sample of management buyouts (979 MBOs in 4877 plants in the UK). They find that plants experiencing a MBO are less productive than comparable plants before the transfer of ownership but that they experience a substantial increase in productivity after the buyout.

However, at this point it is noteworthy that results on productivity may suffer of significant biases. For instance, as Ayash and Schütt (2016) noticed, under current accounting rules buyouts targets' measures are linked to a general upward shift. This is linked, for example, to the increase in value of the assets in the balance sheet that naturally occur after such deals are completed.

Another interesting aspect to analyse about operational value drivers regard on what lines of the profit and loss account private equity sponsors focus their strategies, namely improvements of sales or of operational margins (i.e. EBITDA margins). Ayash, et al. (2107) classified these 2 strategies as Classic LBOs, and Entrepreneurial LBOs respectively. In particular, in "Classic LBOs" private equity firms focus more on improving bottom-lines operating efficiencies through, for example, the activities described above: dismissal of underperforming assets, cut on wasteful investments, etc. On the other hand, in "Entrepreneurial LBOs" they focus more on top-line revenue growth and implement

the so called “buy and build” strategies, according to which the management concentrate more on expansion and acquisition activities. The data shown by the authors support the idea that, in modern times, Entrepreneurial LBOs are the most common among the two types. However, despite the dichotomy proposed, such strategies seem not to be mutually exclusive but rather to be applied simultaneously by private equity firms. For instance, in a study on 191 buyouts during the period 1995-2004, Battistin et. al (2017) found that the sample of companies analysed was able to obtain higher sales (mainly through the acquisition of other firms), but also (even though in a smaller measure) to achieve higher EBITDA margins.

The last results presented should not be surprising since EBITDA could be considered a good proxy of the Operating Free Cash Flow (OFCF). In fact, EBITDA is often referred to as “potential operating free cash flow”: this makes it one of the most important financial measures that is monitored closely by private equity funds. The reason for its importance is twofold: in the first place, private equity firms evaluate every operational change and define its priority based on the impact it has on EBITDA. The rationale could be found in the fact that improving EBITDA, and eventually cash flows, is necessary to pay back the large amount of debt. In the second place, EBITDA is the basis upon which debt contractual agreements are negotiated: covenants are set and agreed with the banks at the point of transaction and are based on future forecasts of the financial performance submitted at that point, namely EBITDA. As a consequence, private equity firms should identify opportunities to also improve EBITDA (rather than focusing on sales only) by having leaner and better managed operations.

Last, the elements that distinguish the EBITDA from the actual operating free cash flow available for debt service are the change in the Operating Working Capital (OWC) and the Capital Expenditures (CapEx), which, consequently, must be managed meticulously by private equity sponsors.

Operating working capital management refers to all the strategies adopted to manage the relationship between short term operating assets and short term operating liabilities. The objective is to ensure that a company continues with its operations and meet its obligations when they fall due and without absorbing too many financial resources, which otherwise would need to be collected through additional debt. In practice, improving operating

working capital means reducing it, since an increase in short term operating assets translates into a liquidity absorption and vice-versa. Thus, private equity firm will likely try to reduce the operating working capital with a series of operating initiatives, namely:

- Reducing the time to collect receivables;
- Increasing the time to pay payables;
- Reducing inventory levels.

A report by Ernst Young (2020) shows that private equity interventions are able to bring benefits in each of these areas. In particular, from an account receivables perspective, thanks to billing acceleration, optimized collection processes and dispute management, target firms were able to improve the account receivables collection by 5%-6% on average over a 90-180 day period. From an account payables perspective, the report points out how private equity firms concentrate their effort not only on vendor terms (which has always been the classic focus) but also on other cost-cutting levers such as supply chain financing and e-payment strategies. The adoption of such a holistic approach resulted in an improvement of the management of account payables compared to those that focused on vendor terms only. Last, as for what concerns the inventory management, the report indicates that private equity backed firms adopted strategies that analyse demand or supply variability lead times, replenishment frequency, and forecast accuracy. In this way, on average, such firms were able to reduce their inventory levels by 10% to 30%.

To conclude, capital expenditures are defined as the funding used by a company to acquire or upgrade physical assets. In order to increase operating free cash flows, they should be reduced by private equity firms. Although this is in line with the findings of Kaplan (1989), more recent studies show how the private equity activity (in particular that concerning private targets) is associated with an increase of capital expenditures. In particular, Chung (2011) found that they increased, on average, by 51% in the sample of firms studied. The rationale behind such findings, as shown in Battistin et al. (2017), could be related to the fact that private equity investors - even though they don't ignore EBITDA improvements - are primarily focusing on top lines growth which normally require large expenditures in assets.

1.3.4 Other value drivers

In a recent work, Castellaneta et al. (2018) identify and summarize several other types of value drivers from the existing literature – among which strategic, cultural, commercial

and institutional - and a broader list of related sub-drivers that private equity firms normally exploit in order to create value. Of particular interest for this work are the cultural driver and some of the related sub-drivers, namely the role of monitoring and mentoring and of the revived entrepreneurial spirit.

First, with reference to the parenting advantage framework proposed by Campbell et al. (1995), it seems that private equity funds thrive in developing monitoring, mentoring and learning services which allow them to build distinctive organizational capabilities (Hannus, 2015). Not surprisingly, a key role for the achievement of such results is played by the cultural shift towards a less bureaucratic form of organization and the adoption of an active ownership model (as anticipated in 1.3.1). In fact, such model allows for the instalment of direct communication channels among ownership and management which translate into an incentive for constructive interactions (Kester and Luehrman, 1995). In line with this, researches show that private equity investors frequently (meaning on a weekly or even daily basis) discuss issues and opportunities directly with the top management, contrary to what happens in the traditional corporate boards. For instance, a study by Heel and Kehoe (2005) illustrates how in the private equity buyouts analysed “the partners spent more than half of their time on the company during the first 100 days and met almost daily with top executives”.

Second, private equity transactions are commonly seen as a vehicle to reinstall an entrepreneurial spirit in target companies, which is unsurprisingly associated with overall performance improvements (Wright et al., 1996). To this extend, private equity backed firms are normally linked to enhanced R&D activities, business and product development, and technological alliances (Lerner et al., 2011; Thompson et al., 1992; Zahra and Fescina, 1991). Another aspect that can be linked to the cultural change and the enhanced entrepreneurship is the positive influence that these operations have on human resources management. For instance, Bruining et al. (2004) in the sample of target firms analysed found evidence of increased training, employee involvement, number of employees, and pay levels.

Last, Gomper et al. (2015), having studied 79 private equity firms with more than 750\$ billions of assets under management, found that the sources of value added are: increasing revenue, improving incentives and governance, facilitating a high value exit or sale, making additional acquisitions, replacing management and reducing costs. In short, however,

even though there are many other researches in which scholars identified and classified many different activities and areas of intervention of the Private Equity firms, they are all substantially similar and can be somehow included in the macro areas proposed within the last three paragraphs.

Summarising, from paragraph 1.3.1 to 1.3.4 we presented a theoretical framework concerning the major area of intervention of private equity sponsors. The existing literature recognizes that value creation in investee companies is mostly linked to strategic changes in their governance, financial and operating structure (Kaplan and Strömberg, 2009), as well as to improvements of other aspects related to corporate culture, like enhanced entrepreneurial spirit, human resources training and communication among company layers (e.g. Bruining et al., 2004; Heel and Kehoe, 2005; Wright et al., 1996). In the next section, we will analyse how private equity-backed companies have been performing over the years, providing additional evidence of the overall effects of the above mentioned interventions.

1.4 Portfolio companies' performance

Extensive research has been carried out to examine the performance of private equity-backed firms (e.g Bacon et al., 2012; Kaplan, 1989; Guo et al., 2011; Opler, 1992; Scellato and Ughetto, 2013; Wilson et al., 2012; Smith, 1990). Scholars have been focusing on many accounting measures in order to assess the impact of these investments - through the value drivers described above - on targets. They include, for instance, sales and employment growth (Bacon et al., 2012), cash flow (Kaplan, 1989), profitability, size and productivity (Guo et al., 2011; Scellato and Ughetto, 2013) and many others, part of which have already been mentioned in paragraph 1.3.1 to 1.3.4.

Considering the first buyout wave of the 1980s, the evidence (mostly from the U.S.) shows that portfolio companies were able to increase profitability, growth and liquidity after buyouts. Specifically, Kaplan (1989) provide evidence of a net increase in net income and cash-flow together with a decrease of capital expenditures in 76 U.S. buyouts. The results are confirmed by Opler (1992), who noticed a 11,6% increase in operating cash flow in a sample of 44 buyouts carried out in the late 1980s. Also Smith (1990), who investigated changes in operating performance after 58 buyouts from 1977 to 1986, show that operating cash flows increased significantly from the year before to the year after

buyouts. Similar results were found in Europe, where Wright et al. (1992) discovered significant improvements in profitability in U.K. buyouts.

Moving to more recent studies i.e. studies of the second and third buyout waves of private equity transactions, some authors argue that private equity investments lead to substantially positive impact on firm performance (Goossens et al., 2008). However, results for this wave show some contradictions. In particular, Scellato and Ughetto (2013) studied a sample of 241 European companies in the period between 1997 and 2004 and found ambiguous results. On the one hand, they noticed a significant increase in total assets in target firms. On the other hand, though, operating profitability for portfolio companies were lower compared to the control group i.e. non-target, comparable firms. On the contrary, Guo et al. (2011), examining buyouts completed between 1990 and 2006, find that “gains in operating performance are either comparable to or slightly exceed those observed for benchmark firms”. Coherently, positive impacts on targets are confirmed in the following years by findings presented by Wilson et al., (2012), who examined the performance of thousands of private equity transactions in the UK during the years of the last global recession. Indeed, their empirical evidence shows that private equity-backed firms were able to outperform comparable peers that did not experience such transaction. In detail, the analysis highlighted a positive differential in profitability for portfolio companies of around 3% to 5% compared to non-targets.

Moreover, considering the Italian scenario, a recent study by Pwc (2020), estimated that private equity firms had a direct impact on the performance of the companies they own, resulting in net growth differences compared to companies not owned by private equity: from 2014 to 2018 the growth in revenues of portfolio companies is significantly higher than the growth of the related benchmark (5.5% against 1.3% in 2018, with a positive difference always above 4% over the entire period) . The average employment growth rate for private equity backed companies is also higher than the average employment growth rate of Italian companies: firms in which private equity had a stake had a rate of employment growth steadily close to 5% over the 4 years, compared to the 0.0% rate of Italian businesses.

Concluding, despite some contrasting evidence exists, it seems that, in the majority of buyouts from the 1980s to more recent years, target firms were positively impacted by private equity funds under different point of views.

1.5 Conclusions

In this chapter, a relevant theoretical framework useful to understand the structures and the mechanisms behind the private equity industry was presented. Also, a review of the current literature about how private equity firms create value in target companies, along with an analysis of the evidence on private equity-backed firms' results in the years post-deal, was performed.

Overall, the private equity industry shows some peculiar features, namely the willingness to raise investment funds with the aim of taking an ownership interest in a company and holding it on private hands; the desire to make positive, lasting changes in the businesses they own; the need to exit the investments at the right time in order to provide investors with a fair return.

The major distinction made within the industry is between venture capital investments and buyouts. The former generally indicates private equity investments aimed at the development of new ideas or businesses in their start-up phase, while the latter broadly refers to investments in later stages of the business cycles. In buyouts, private equity firms try to influence the businesses they acquire in a relatively short period of time (normally 3 to 5 years) with rapid and deep interventions on their financial, governance, operating and cultural dimensions. In practice, private equity sponsors create value through increased levels of debt, which prevent management to dissipate available financial resources while reducing agency conflicts between managers and owners; through the application of specific governance mechanisms aimed at accelerating decision-making processes, aligning the interests of the different stakeholders, and assuring better monitoring and controlling activities; through the improvement of operating activities, with the purpose of reducing operating working capital, increase margins and boost growth; and last, through interventions on cultural aspects, such as reviving the entrepreneurial spirit, improving communication among business layers, and providing mentoring and learning services.

Data on post buyouts performance show that, on average, such deals have a positive impact on investee companies. Indeed, despite some contradictory evidence, especially with regard to operating efficiency, buyouts are generally associated with an increase in sales, operating cash flows and profitability.

A thorough understanding of the main dynamics within which the private equity industry moves, together with a detailed comprehension of the value levers exploited by private equity managers and the results they achieved in portfolio firms, are some prerequisites of paramount importance in order to better understand the analysis that will follow.

In Chapter 2 we will continue by contextualizing the private equity activity into the world of family businesses, where some of the underlying logics and values might seem in deep contrast with those discussed so far. In particular, we will explain in detail what are the factors that might tie together these economic realities and what are those that might keep them apart. Also, we will show a literature review on how private equity-backed family firms performed, eventually comparing it to the one presented in this chapter.

PRIVATE EQUITY AND FAMILY FIRMS

2.1 Introduction

In Chapter 1, we have seen some of the major trends of the private equity industry, what are the structures and the logics under which it operates, as well as the results it has achieved on portfolio companies. The picture emerged about private equity firms is clearly that of highly professional organizations, strictly adhering to the maximization of value creation and the adoption of enhanced management and financial practices. In short, it can be stated that private equity sponsors are profit-focused investors that aim at investing, and subsequently divesting, their equity stakes with maximum capital gains in a limited period of time (Dawson, 2011; Wright and Robbie, 1998) of typically four to seven years (Upton and Petty, 2000). In this chapter, on the one hand we will try to understand how compatible such a *modus operandi* is with that of family, while, on the other hand, what have been the outcomes (in terms of performance) of family firms' buyouts in past and recent years.

The interests of the analysis is (at least) twofold. In the first place, family businesses represent the vast majority of economic organizations throughout the world, especially in the private economy, and thus a great opportunity for private equity investors (Anderson and Reeb, 2003; Chrisman et al., 2003; Dawson, 2011; Zellweger, 2017). In the second place, family firms often adhere to contrasting logics as compared to those mentioned above. Generally, they care particularly about non-financial goals (Gómez-Mejía et al., 2007), and are not very prone to open up their capital to family outsiders (Poutziouris, 2001), thus resulting difficult and complicated targets for private equity sponsors.

Consequently, in order to better comprehend the relationship between the two actors, we will start by discussing what exactly is meant by family firms (section 2.2), overcoming common misconceptions related to them. Following, paragraph 2.2.1 will provide an explanation of the main traits, characteristics and players involved in a family business. Paragraph 2.2.2 delves deeper into the analysis, adjusting the focus on the most important aspects of family firms' financial practices and explaining how they are affected by the underlying logics previously discussed. From section 2.3, private equity and family firms are finally examined together: first, by providing a recap of their main features (hence highlighting points of convergence and divergence); then, by explaining family firms' perspective on private equity (2.3.1), private equity's perspective on family firms (2.3.2), and last, some data on the actual number of family business buyouts (2.3.3). To conclude, as in the case of Chapter 1, section 2.4 reports a literature review on the post-deal performance achieved by private equity-backed family firms.

2.2 Family Firms

Family Firms are one of the first forms of commercial organization. One hundred years ago "business" meant "family business" and thus the adjective "family" was redundant, as Aldrich and Cliff (2003) wrote. Today, their classification and consideration are often subject of misinterpretation, with many considering a family firm just as the bakery or the grocery store in their neighbourhood. However, the reality is different: according to a study by McKinsey (2010), one-third of all companies in the S&P 500 index are defined as family businesses and they do not merely consist of the small and mid-sized companies but also of giants such as BMW, Samsung and Wal-Mart. Coherently, family firms research is becoming an ever more important and accepted field of study in business economics, as can be inferred from the increasing number of published journals, special issues, and conferences on this particular topic (Harms, 2014).

In order to gain a clear picture of this particular type of ownership, scholars have proposed many definitions of what a family business is. For example, Anderson and Reeb (2003), define a family firm as a firm in which the family maintains a significant ownership stake and/or managerial control. Zellweger (2017) instead, expands this view defining a family firm as a firm dominantly controlled by a family with the vision to potentially sustain family control across generations. However, a precise, generally-accepted categorization

of family and non-family businesses across countries is still lacking. Table 1 below shows how a neat demarcation between the two phenomena does not exist:

Table 1: Family business definitions

Influence dimension	Cutoff criterion distinguishing family from nonfamily firms	Rationale
Ownership	In general: majority of decision making rights and/or managerial control in the hands of the family. For small firms: at least 50% of voting rights in family hands. For large and public firms: at least 20% or 25% of voting rights in family or family descendants' hands.	Ownership, and in particular voting rights, equip actors with a decisive power to alter the strategic direction of the firm.
Management	In general: formal family involvement in management required (also through a representative). Small firms: family involvement in top management team required. Large and Public: involvement often not required.	Management involvement is what allows a dominant coalition (the family) to imbue a firm with particular values and to directly influence decision making.
Transgenerational outlook	For some scholars the intent to pass the firm to next generations is necessary to define it as a family firms. This criteria is not always required.	It is the desire for transgenerational control that distinguishes a family from a nonfamily firm.
Later-generation control	For some scholars first-generation firms are founder-controlled firms and only later-generation firms are family firms. Also this criteria is not always required.	Control that spans generations - and hence is not limited to a founding generation - is what constitutes a family firm.

Source: Adapted from Zellweger (2017)

In spite of the many definitions used to describe them and the lack of a definitive one, many consider family firms to be the dominant form of economic enterprise throughout the world (Anderson and Reeb, 2003), with estimation suggesting that they account approximately for 40% to 70% of global employment and GDP (Zellweger, 2017). In Europe in particular, family businesses are the single biggest source of employment in the private sector, which consists of more than 14 million family businesses providing over 60 million jobs (KPMG, 2015). The European Commission, which defines a private family business as:

«A firm, of any size, [...] if: 1) The majority of decision-making rights is in the possession of the natural person(s) who established the firm, or in the possession of the natural person(s) who has/have acquired the share capital of the firm, or in the possession of their spouses, parents, child or children's direct heirs. 2) The majority of decision-making rights are indirect or direct. 3) At least one representative of the family or kin is formally involved in the governance of the firm» (European Commission, n.d. b)

and adds the following point for the case of publicly listed firms:

«4) Listed companies meet the definition of family enterprise if the person who established or acquired the firm (share capital) or their families or descendants possess 25 per cent of the decision-making rights mandated by their share capital» (European Commission, n.d. c)

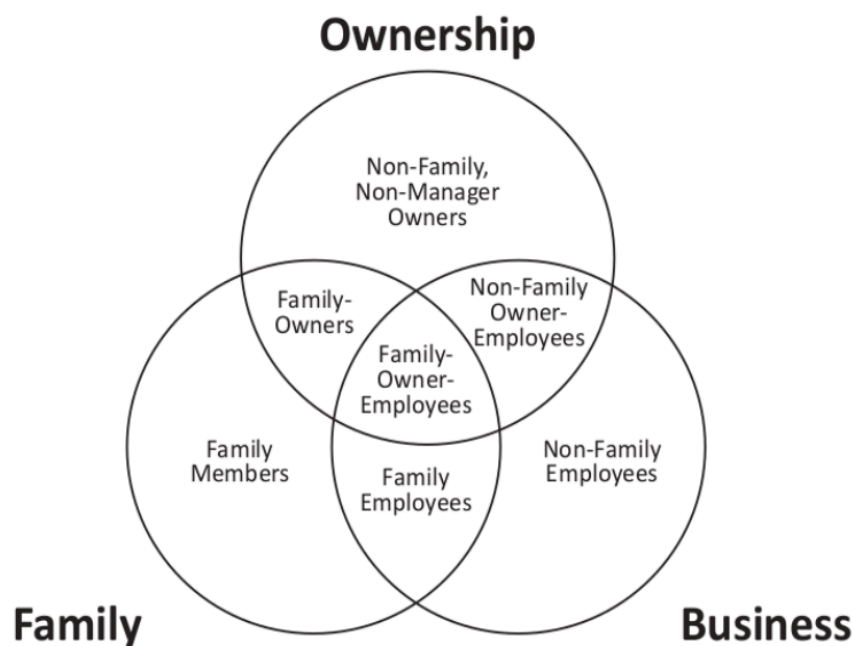
states that 70% to 90% of all firms in the European Union are family firms. For what concerns the Italian scenario, according to the classification and the study made by Flören et al., (2010), Italy's share of family firms is even higher, reaching 93%.

2.2.1 Business logics in Family Firms

Zellweger (2017) argues that “practitioners and scholars alike have found it useful to define family firms as organizations characterized by the interplay of several subsystems”. In detail, two most basic subsystems can be identified in the family and in the firm and each of them is presumed to adhere to different - if not opposing - logics. The family subsystem is thought to be characterized by tradition, emotional/irrational behaviour, nepotism, long term perspective and non-financial values, while the logic characterizing the firm is generally constituted by renewal, rational behaviour, meritocracy, short term perspective and financial values. In line with the literature, KPMG (2015) describes a number of traits that define family businesses (particularly those in the first or second generation, where the founder influence is still strong) and distinguishes them from non-family corporations. These traits consist of “a casual approach to business processes and procedures, more personal management, less defined business strategies and plans, and a do-it yourself attitude”. Again according to KPMG (2015), only when the family firm has a desire to grow would the logic of the firm increase its importance: this translates into improvement of the governance structure, education of the family and external-talents acquisition. Nevertheless, in order to avoid jumping to conclusions, it is important to keep in mind that while such simplification of the reality into circle models and stereotypes is useful to disentangling the underlying logic of the subsystems, it can also lead to flawed subsystems prototypes and functionality assumptions. For instance, as Zellweger (2017) points out, “relationships among family members may be more complex than those among non-family members, but they are not necessarily less rational” and, despite it normally seems that the family sphere negatively affects the success of the business, “many aspects of the family logic may be present and even desirable in the business”.

A more complete and much more used alternative to the two circle model proposed by Zellweger is the three circle model (Figure 4) introduced by Tagiuri and Davis (1996). In this case, a family business is represented as the interconnection of three elements: the family, the ownership and the management, all of which might overlap with one another in one or more points, defining in this way seven roles that a person could have in the firm. Hence, its main contribution is to highlight the role-related complexities that actors involved in family-firm environments experience.

Figure 5: Three-circle model of family influence



Source: Tagiuri and Davis (1996)

The overview presented so far is to say that family businesses require a kind of management that is only apparently and superficially similar to that others nonfamily businesses. Running a family firm is always a difficult task and often asks to find compromises between stakeholders (i.e. actors of the various subsystems) that are strongly attached to the firm's assets not only under a financial point of view, but also under an emotional one. More on this point will be discussed in the remaining part of the chapter.

2.2.2 Financial practices in Family Firms

It might seem reasonable to believe that family firms adopt the same principles of corporate finance of any other firm since, after all, they are firms themselves. However, the influence of the family over financing decisions leads to decision making criteria based on assumptions that are not always in line with the fundamental ones of corporate finance e.g. selection of financial sources according to cost minimization (Myers, 1984) or the balancing of the capital structure with an optimization of the tax benefits and the cost of debt (Modigliani and Miller, 1963). Indeed, family firms are likely to engage in a financial logic based not only on rational economic motivation but also on personal preferences for growth, risk, and ownership control (Gallo et al., 2004). Interesting arguments of why family firms do not homologate with the standard principles of finance are proposed by Zellweger (2017) who, starting from the well-known CAPM (Capital Asset Pricing Model), suggests that some of the pillars at its basis should be re-considered in the context of family businesses. In particular, he suggests that there are mainly three important considerations to analyse more in depth, given the fact that some other assumptions of the CAPM, such as the absence of taxes and commission or the inability of investors to influence prices, can be taken as valid also in this context.

First of all, the assumption of investors having a well-diversified portfolio of assets with a passive and minority stake in each of them is in deep contrast with the reality of family firm, where owners normally have a concentrated and active wealth position. As a consequence, family firms should be relatively more risk adverse compared to a standard investor and their owners should be considered as “risk shaper” rather than “risk taker” (Zellweger, 2017). Coherently, in the words of Anderson and Reeb (2003), the founding families see their businesses as a “good” to be passed on to family members and its descendants rather than an asset to be exploited (as it normally is the case for minority shareholders). In this perspective, the survival of the company becomes a matter of paramount importance for family business owners, which will seek risk reduction strategies through, for example, the adoption of forms of capital associated with low default risk. Scholars seem to agree on this point, arguing that family firms normally employ conservative financial instruments and that the trans-generational passage influences financing decisions in this sense (Amore et al., 2011; Lopez-Gracia and Sanchez-Andujar, 2007; McConaughy and Phillips, 1999; Molly et al., 2010 in Koropp et al., 2014). Consistently,

other studies show a strong preference of family businesses for internal financing and family funds over debt instruments (Romano et al., 2001; Sirmon and Hitt, 2003). However, there is not clear evidence that family firms present lower levels of debt as compared to nonfamily counterparts (Wu et al., 2007), confirming that capital structure setting in family business mostly depends on the personal preferences and attitudes of the owner-managers (Koropp et al., 2014).

Second, Zellweger (2017) highlights the fact that family business owners are not overly concerned about short-term results and are generally more focused on the long-term ones. This is in clear contradiction with the CAPM, which assumes that investors do not care about the time horizon of their investments. In addition, the fact that family business owners invest over an extended time horizon and do not seek for immediate returns provides them with a competitive advantage. Such argument is related to the concept of “familiness” proposed by Habbershon and Williams (1999): according to the authors, familiness derives from the integration of the family and the business and contributes to develop a sustainable competitive advantage that, in this case, generates from a particular type of capital that they refer to as “family capital”. Family capital, indeed, has the property of being unique to the family that generated it and - as noticed also by Zellweger (2017) - is normally considered to be patient i.e. invested in the firm for long periods of time. This characteristic allows family businesses to pursue investing opportunities that might be more profitable in the long run compared to those chosen by competitors focusing on the short-term (Zellweger, 2017).

Third, family business owners are often known for pursuing non-financial objectives over financial ones (see e.g. Gómez-Mejía et al., 2007). Indeed, in running their firms, families do not only consider business related goals, but pursue also other objectives like the preservation of control over generations, the nurturing of benevolent social ties (i.e. the relationships with individuals inside as well as outside the families), the status and reputation of both the firm and the family, etc. Gómez-Mejía et al., 2007 analyse in detail these aspects and define them as part of the Socio Emotional Wealth (SEW). A precise definition of SEW is presented in paragraph 2.3.1, where it is also contextualised in the relationship between family businesses and private equity investors. For now, this is to highlight the neat contrast with the CAPM, which assumes that investors always want to maximize their economic utility. Notably, Zellweger (2017) argues that when “caught in

a dilemma over which utility dimension to prioritize, decision makers must carefully consider the firm’s vulnerability”. This generally leads family firms to weight more non-financial goals - even at the expense of SEW - but only when the actual financial performance does not need improvements and vice-versa. In other words, decisions that are counterproductive under an economic perspective are abandoned in time of financial distress. There is ample evidence supporting this thesis: for instance, (Koropp et al., 2014) noticed that family owned olive mills in Spain are more likely to join coops as the volume of sales decline. Similarly, newspapers are more likely to terminate family directors when the probability of failure is high (Gómez-Mejía et al. 2003).

In sum, Table 2 below illustrates the main differences between CAPM’s assumptions – associated with financial “standard” practices - and the family firms’ logics.

Table 2: CAPM's assumptions and family firms

Assumption	Appropriateness for family firms
Investors invest in many assets in order to diversify and reduce their risks, and each investor only holds a small fraction of each asset.	Family firms have a low number of investors (usually the family members, especially in private family firms). The family has an undiversified wealth position and holds a large fraction of the asset (i.e. the firm), thus it is more risk adverse.
All investors look ahead over the same one-period planning horizon.	Family firm owners invest for the longer run, usually with the intent of passing the firm on to another family generation. They care a lot about value preservation.
All investors maximize economic utility.	Family firm owners are concerned about socioemotional utility as well as economic utility. Often they prioritize non-financial goals.
All investors have the same information about investment opportunities.	The controlling shareholders (i.e. the family) is often involved in management and has information advantage over outside investors.
Assets can be sold at the market price at any time, and investors have equal access to all assets.	The market for ownership stakes in family firms is illiquid. Investments in private firms are normally closed for nonfamily investors and "not for sale". However, there are circumstances in which family firms are willing to open up their equity capitals.

Source: Adapted from Zellweger (2017)

Concluding, the peculiarity of family firms’ equity that have been presented above and summarized in Table 2, together with other specific traits showed in previous paragraphs, neatly distinguishes investments in this asset class from “standard” investments in public

and private equity i.e. equity investments strictly adhering to CAPM or other strict economic logics. Such difference, focusing on a comparison with private equity investments, will be covered more in detail in the next sections.

2.3 Family equity and private equity

Having discussed the main feature of family firms and private equity firms, important differences clearly started to emerge between the two. With particular regard to the equity in the family firm or “family equity” as Zellweger (2017) calls it, a list of the main characteristics differentiating it from the private equity (intended as equity stakes owned by private equity funds) is presented in Table 3 below. The table clearly collects and summarises the most important features of the two economic actors, integrating Table 2 on the one hand, while highlighting how their equities are doubtlessly distinct asset classes on the other (Zellweger, 2017). The points of contact and the divergencies exposed here ought to be kept in mind as they lie at the basis of a thorough comprehension of the discussion that follows.

Table 3: Private versus family equity

	Private equity	Family equity
Description/type of investor	Professional investor	Family
Ownership Stake	Majority and minority	Mostly majority
Number of company stake held in parallel	Up to 15	1 to 3, of which one tend to be the largest by far
Wealth diversification	Medium	Low to very low
Risk aversion	Low	High
Financing	Medium to high leverage	Mainly equity or banks' debt
Control over investment	Medium to high	High
Managerial involvement	Medium	Medium to high
Time horizon	From 4 to 7 years	Up to multiple generations
Strategic Rationale	Buy, build, rapidly quit	Buy, build, selectively quit

Source: Adapted from Zellweger (2017)

2.3.1 Family firms’ perspective on private equity funds

According to the existing literature, a family firm might need financing from a private equity fund either for family or business related reasons. In order to understand what these

reasons are, scholars have conducted research with primary focus on the following theories: theory of planned behaviour, stewardship, SEW, pecking order theory, agency theory and research based view. Such research, other than the motives for family firms to engage with private equity houses, highlights also some of the aspects that might impede or complicate the relationship between the two actors. These last aspects are the starting point of this paragraph, which then ends by presenting the main arguments in favour of private equity.

To begin with, as anticipated in section 2.2.2, family firms tend to be reluctant to open up their capital to external investors. Many studies found that, in order to safeguard family ownership, control, and financial independence from outsiders, owners-managers of family firms often overlook growth opportunities that might become available thanks to third-party financing (Upton and Petty, 2000; Poutziouris, 2001). Notably, such fear of loss of control and managerial freedom (mainly due to the replacement of existing family managers with external professionals, who often are not considered as “stewards” of the firm, after the transaction) depends on the equity stake acquired by the private equity fund and is normally associated with majority investments (e.g. buyouts). Coherently, Tappeiner et al. (2012) found that in the case of minority investments (less than 50%) family owners often keep an active role in guiding the company, while the same role becomes quite marginal for family members in the case of majority investments.

Another stream of research, tightly connected with the one just presented, states that reasons for family firms not to rely on private equity capital are related to the family loss-aversion regarding Socio Emotional Wealth (SEW). As observed by Gómez-Mejía et al. (2007), who define SEW as “the total stock of affect that the family has vested in the firm”, family firms base their decisions on a mix of financial and non-financial criteria, where the latter are at the mercy of the former only when the survival of the business is at risk. Such logic is clearly in contrast with the one adopted by private equity firms, which always strictly operate following financial and value-creation objectives: this creates a sympathy gap between the two players (Seet et al., 2010) that might prevent a positive interaction between them.

Additionally on the reluctance of family businesses towards private equity, many studies on capital structure have concluded that requests for additional sources of finance seems

to follow a pecking order. According to the pecking order hypothesis (POH), firms finance their operations first with internally generated funds, second with debt and third with external equity (Myers, 1984). Both Poutziouris (2001) and López-Gracia and Sánchez-Andújar (2007) confirm that, mainly to reduce outsiders' influence and (again) to retain control over the family business, closely held family firms strongly adhere to this hierarchy when developing their financial structure. Hence, when a private family firm is in need of additional sources of capital and lacks the internal generated funds or is unable to raise additional debt, private equity is considered only as the last resort (Tappeiner et al., 2012).

A last consideration found in the literature supporting the apparent distance among family firms and private equity is about the time horizon of the investment. As observed by Achleitner et al., 2008, family firms tend to have a long term investment orientation and a focus on preserving the firm (see also paragraph 2.2.2), while private equity funds focus on shareholders' value maximization in the short-medium run and are willing to take higher risks.

Moving to what is in contrast with the arguments stated so far, there are circumstances under which family firms prefer additional equity rather than debt and therefore private equity funds are not necessarily seen as a last resort. For instance, equity is preferred over debt to finance growth projects since, by contract, debt has to be reimbursed independently of the projects' success while equity has not. This view is backed by empirical researches made by Achleitner et al. (2008) and Tappeiner et al. (2012), which show that additional equity from external investors is often required to face challenges related to growth, such as internationalisations or acquisitions of other firms. The above mentioned researchers also show that external equity is often a choice when family firms are facing crises like liquidity shortages or family related issues that lead, for example, to buying out a family shareholder. More in general, since the lack of financial resources is one of the principal factors affecting the development, growth opportunities, and long-term survival of private family firms (Romano et al., 2001; Sirmon and Hitt, 2003), opening up the equity capital to external investors (like private equity funds) is often a reasonable solution to these problems. Such views confirm the point made by Gallo et. al (2004) and Koropp et al. (2014), according to which family firms financing preferences are mostly individual (see section 2.2.2).

In favour of the engagement between family firms and private equity investors are also the non-financial benefits that these funds bring to family firms. As observed by Tappeiner et al., 2012, the more the family needs the investor's resources, in particular non-financial ones, the higher is the probability of the owner to concede private equity funds more voting rights (notably, this also perfectly fits with the SEW theory, since SEW losses associated with lower level of control in this case are compensated by obtaining the needed resources). Indeed, such benefits might be of paramount importance for solving some of the most common weaknesses found in the context of family businesses, for instance:

- 1) Lack of professionalization in operational and strategic issues;
- 2) low presence of talented managers;
- 3) declining entrepreneurial orientation;
- 4) succession challenges.

First, as seen in Chapter 1, the sets of changes brought by private equity firms to their targets are not only applied at a financial level but also at an operational one and to the investee's governance structure. Plus, the value drivers that can be managed are many and, in most cases, also specifically thought to address weakness 1) to 4), as explained in details in section 1.3. More specific to the family business environment instead, is the point about succession challenges.

The problem of succession in family firms has been broadly investigated and many scholars have come to the conclusion that intra-family transfer of ownership and management is by far the preferred option. In fact, many families strive to keep ownership control within its members over several generations (Chua et al., 1999). However, other research indicates that most family firms fail to cope with succession and only a small percentage of family owned businesses survive across generations, with a mere 30% surviving past the first generation and only 10% to 15% making it to the third generation (Miller et al., 2003). The literature also indicates many possible reasons for succession failure, including insufficient succession planning, incompetent, unprepared or unwilling heirs, low quality of the relationships within family members, and financial issues (e.g. Koropp et al., 2013). In addition, succession is naturally a one time-event in the perspective of most

business owners. Therefore, the experience and resources (both financial and non-financial) of private equity firms might help family owned businesses in structuring and succeed in the succession process (Koropp et al., 2013).

Summarising, the perspective of family firms on private equity financing has been studied under many research theories, with a main focus on theory of planned behaviour, stewardship, SEW, pecking order theory, agency theory and research based view. Findings show that a family firm might tend to avoid opening its capital to third-party financing (especially equity financing), or to consider it only as a last resort option. This happens mainly because of the fear of loss of control over the firm's assets and of freedom over their management. However, some evidence that under certain circumstances - like the need of additional financial resources for growth projects or succession issues - family firms rely on the means and expertise of external investors like private equity funds, does not lack.

2.3.2 Private equity funds' perspective on family firms

Looking at family firms from the perspective of private equity funds, as it was for the opposite case, some points of affinity and some of aversion arise.

To begin with, scholars argue that private equity funds are interested in family firms mainly for three reasons: first, they represent a large deal pool; second, they have potential for high financial returns; third, they have unique human capital. These reasons, together with the related counter arguments found in the literature, are presented more in detail below.

In the first place - as also explained in section 2.2 - data show that family firms represent a very common form of economic organization throughout the world and thus a large deal pool for financial investors like private equity firms (Dawson, 2011). This is particularly true in Italy, where the family firms have a decisive weight in the national economy.

Second, thanks to their common features, family businesses are often perceived as very attractive investment opportunities. There are two main reasons for such attractiveness: on the one hand, many family-owned firms are unable to access both the resources and capabilities needed to sustain competitive advantage and growth, which private equity investors can provide (Sirmon and Hitt, 2003). Clearly, this point is related to the family firms' weaknesses presented in 2.3.1 and is generally solved with the strategic interventions already discussed.

On the other hand, many family-owned businesses tend to focus more on bottom line activities rather than on top ones (i.e. they focus more on sales and production at the expense of strategic planning), remaining “economically underdeveloped” (Dreux, 1990). In addition, some private equity investors describe family businesses as less efficient, less professional, and less successful as compared to other organizations (Granata and Chirico, 2010). As a consequence, in such businesses there might be room for unlocking a greater potential compared to non-family firms, and consequently for gaining greater financial returns (Schickinger et al., 2018). However, it is important to consider that, as Dreux (1990) and Dawson (2006) showed, private equity investors are more likely to target family firms that have attractive economics and already display positive overall performance before the deal, while they tend to avoid uncertain situations where the investment activity is naturally associated with more risk. Thus, arguing that family firms are able to generate greater financial returns for private equity might be pretentious without adding further specifications. A possible way for disentangling the discussion is to differentiate between minority and majority investments, which in most cases can also be considered as a proxy for distinguishing the investment stage (expansion versus later stage operations), as specified in Chapter 1.

On the one hand, minority investments might lead to greater synergies and performance achievement in family firms, especially when the actual human capital of their boards is not substituted, and a monitoring and supporting role is assigned to the private equity’s representatives. Indeed, such configuration allow for the creation of a superior governance able to reduce agency costs while integrating private equity investors and incumbent owners’ strategic resources (Battistin et al., 2017). Against this last consideration, however, many scholars argue that minority investments might lead to less attractive scenarios. This is due to the fact that family members’s desire to pursue non-financial goals at the expense of the business performance could negatively affect the minority stake of non-family shareholders (Berrone et al., 2012). Also, the presence of a business-owning family with majority voting rights is seen as an obstacle to any plan for an initial public offering (IPO) as a possible exit strategy, thus reducing the family firm's attractiveness (Schickinger et al., 2018). Moreover, the partial sale of a company normally increases the number of owners, augmenting possible disagreement between them and creating so called owner-owner conflicts (Chrisman et al., 2012)

On the other hand, majority investments seem to allow the private equity firm to better implement structural changes at strategic and operational levels, hence facilitating the harvest of unexploited growth potential (Reid, 1996). However, also in this case contradictory evidence exists: in the sample of Italian deals studied by Battistin et al. (2017), private equity funds seem able to foster growth in family firms only when they acquire a minority stake.

Moving forward, a last aspect worthy of interest when analysing family firms with the perspective of private equity investors is the peculiar human capital provided by the family. In fact, in family firms, family managers and owners are likely to develop capabilities and relations that give firms competitive advantages through an in-depth understanding and connection with their business environment. Private equity investors are interested in accessing this tacit knowledge and network of relationships in order to exploit the benefits coming from them (Dawson, 2006). Also, Dreux (1990) noticed that private equity funds favourably see other characteristics of the family' human capital, such as the loyalty and long-term commitment. However, given the fact that family members may work in the firm without proven merits (nepotism) (see e.g. Bertrand and Schoar, 2006; Zellweger, 2017), funds normally want to assess the quality of family human resources prior to taking investing decisions. Not surprisingly, private equity funds' likelihood of investing in a family firm is positively associated with the presence of structured entry programs which foresee, for example, that family members gain outside work experience before entering the company (Dawson, 2006). Additionally, the likelihood of investing in a family firm is also positively correlated with the presence of professional (non-family) managers in leading positions. Indeed, external managers bring heterogeneity and healthy conflicts to the firm by providing perspectives that are not deriving from family experience. Moreover, they are less emotionally connected to the business, making delicate decisions less difficult (Dawson, 2006; 2011).

Summarising, there are different aspects of family firms that are more or less interesting in the eyes of private equity investors. The main focus of the existing research is centred on different theories, such as agency theory e.g. in the case of owner-owner conflicts, or the resource based view e.g. in the case of the unique human capital of family firms and - despite the evidence proposed at this level of analysis is not unidirectional - it seems that private equity investors see family firms more in a favourable way than not.

2.3.3 What do data on transactions say?

The discussion developed so far on private equity and family firms, despite some contradictory evidence, seems to be more balanced towards the existence of a positive and mutually beneficial interaction between the two players. European market data on the number of family businesses involved in private equity transactions, if considered as an indicator of the “reciprocal feeling”, clearly support this thesis. In particular they show that family firms have been some of the main targets of private equity funds, especially in some countries like the UK, Italy and France (CMBOR, 2005). Other observations by the Centre for Management Buyout Research (CMBOR, 2008) instead, showed that the annual number of management buyouts/ins rose from 1.212 in 1998 to 1.436 by the end of 2007, with buyouts of family firms representing some of the most common ones. Also, the number of deals in this particular segment increased from 451 in 1998 to 559 in 2007 and the aggregated value from €11.2 billion to €18.3 billion over the same period. Plus, the majority of buyouts of family firms is backed by a financial sponsor, with data showing that 62% of all buyouts of family firms in that period was backed by private equity firms (Scholes et al., 2009). Considering the Italian landscape only and more recent years (as also exhaustively showed in Chapter 3), the number of private equity deals involving family firms accounted for 78% of the total ones registered in 2018, with an increase of 11% compared to the previous year (PEM[®] Report, 2018)

2.4 Private Equity-backed family firms' performance

Moving forward, in order to have a complete comprehension of the phenomenon it is important to further investigate the relation between private and family equity in terms of its impact on firms' performance.

In general, as described in Chapter 1, private equity activities seem to be associated with a positive impact in their target firms under many aspects. With regard to family firms, recent research does not seem to be balanced towards the same conclusion, except under some particular circumstances. However, the matter is worthy of more in-depth considerations since some contrasting evidence emerged from the literature review.

To start with, Battistin et al., (2017) in a study on 191 Italian firms (86% of which family firms), show that private equity funds are able to boost growth in family businesses, but only when they acquire a minority stake. According to their view, private equity firms are particularly beneficial when they integrate the incumbent management team rather than

substituting it. In this context, private equity investors are interested in keeping family members in managerial position in order not to lose some of the advantages attached to them e.g. long standing relationships with customers and suppliers, family identity, etc. In addition, Howorth et al. (2004) noticed that when the previous owners are frequently involved in the post-deal years, there are fewer conflicts within the firm, which positively impact its overall performance.

Croce and Martí (2014), by observing 257 private equity backed family firms, confirm the positive impact on the post-deal performance in certain cases. Differently from Battistin et al. (2017), they split the analysis between founder-controlled and descendent-controlled family firms and notice that, in the case of founder-controlled firms, there are performance improvements after the private equity intervention. However, at the same time they argue that performance does not significantly improve in the case of descendant-controlled family firms.

Following, contrasting evidence comes also from Buttignon et al. (2005), who analysed a sample of 21 Italian family business buyouts. According to their conclusions, improvements of growth (sales) and efficiency (EBITDA) measures after the deals are not statistically significant. However, they noticed that, in 70% of the cases, underperforming firms prior the investments were the ones performing better after the deals and vice versa, highlighting a strong “discontinuity effect” of private equity investors in family businesses’ performance. Similar results were found by Wulf et al. (2010), who highlighted the ability of private equity funds to positively impact performance only on pre-deal underperforming targets.

Moreover, there seems to be no positive long-term effect of private equity funds on family firms. In a paper by Vivani et al. (2008), where 143 IPOs of family firms - both private equity backed and non - were studied, no strong evidence of synergies between private equity and family ownership emerged.

In sum, when restricting the impact of private equity investors on the world of family business, the positive evidence on target firms’ performance seems not to be as clear as it was in the analysis made in paragraph 1.4. In other words, empirical results do not miss to show some positive effects of the private equity investing activity on family businesses, however, such effects are circumscribed to specific cases.

2.5 Conclusions

Chapter 2 is the nerve centre of this dissertation. It integrated the literature review on private equity made in Chapter 1, linking it with the one on family firms. It provided insights on the reciprocal advantages and disadvantages that might arise when the two realities meet. Also, it showed some evidence on the actual level of interactions within private equity houses and family businesses, highlighting the impacts that the latter have had on the performance of the former.

The analysis made overcomes the traditional idea of family firms - typically meant as little family-managed enterprises or shops around the corner - explaining that, rather than a matter of size, it is a matter of family control over the company and of willingness to keep it across generations what actually defines a family business. As discussed, such underlying desires strongly influence the decisions taken and consequently the strategies adopted by family firms, especially when it comes to financing decisions.

Following, different theoretical approaches spread light on the apparent incompatibility between family firms and private equity. First, from a stewardship perspective, the changes brought by buyouts transactions (as seen in Chapter 1), especially due to the substitution of managers who are members of the ex-business-owning families, and regarded as “stewards”, negatively affect family firms’ post-deal performance. Second, under the SEW point of view, given the socio emotional loss aversion of family members, family firms are generally considered reluctant towards losing control and management freedom in favour of private equity funds. Plus, losses in SEW following the deals might also have negative effect on firms’ performance. Last, reluctance over third-party financing in these firms is provided even by the POH. Through this theoretical lens, business-owning families would consider private equity interventions only as a mean of last resort. On the flip side, additional literature reviewed showed that there are circumstances in which family businesses favourably see private equity financing. This is true especially when family firms need the investors’ non-financial resources, for example in order to enhance professionalization in operational issues, grow, or overcome succession challenges.

Contrary to the family firms’ perspective, private equity sponsors mostly look at family business in a favourable way. According to the researches presented, the generally lower levels of efficiency and professionalization perceived in family owned firms do not make

them less appealing but rather more attractive to private equity funds. This is due to the presence of greater room for unlocking unexploited potentials, eventually leading to a positive impact on performance and thus high returns.

Despite the many complications observed (mainly on the family firm side), data on global private equity transactions seemed to support a strong interaction between the two parties analysed. However, when evidence on portfolio companies' performance was studied (focusing on family or ex-family-owned businesses only), the results were not as clear as they were in the broader analysis made in Chapter 1. Indeed, in this case a positive impact on targets' performance was observed only in specific types of investments. The aim of the work that will follow is therefore that of providing additional evidence on the matter, focusing on the case of Italian family firms' buyouts. In the first place, Chapter 3 will present a brief overview of the Italian private equity market over the five years from 2014 to 2018. Last, in Chapter 4 a sample of 60 family firms' buyouts will be analysed with the purpose of understanding the impact that private equity had on their financial performance, possibly identifying also what were the underlying drivers and the characteristics of the most successful targets.

THE ITALIAN SCENARIO

3.1 Introduction

So far we have showed that the private equity industry has been constantly growing in recent years at a European but also at a global level. In particular, in Chapter 1 we presented some positive, general trends of the private equity activity, which reached record results in 2019. Additionally, in Chapter 2 we presented a more granular analysis, focusing on the private equity activity concerning investments in family firms. Now, in order to provide further evidence on this last point, especially with the aim of gaining insights on the current situation in Italy, this chapter provides a thorough examination of the Italian private equity market between 2014 and 2018. It starts by showing data on the general growth of the market in paragraph 3.2.1. Then, it focuses on information regarding deals origination (i.e. the motives underneath private equity transactions), and deals investment stage (i.e. early-stage or later-stage investments, as explained in Chapter 1), in paragraphs 3.2.2 and 3.2.3, respectively. Last, in paragraphs 3.2.4 and 3.2.5, the chapter presents some analysis concerning the geographical and sectorial concentration of the deals as well as an investigation about the main financial values of the target companies (i.e. sales, enterprise value (EV) and EV/EBITDA).

3.2 Overview of the Italian Market

As stated above, the general analysis of the Italian market presented in this chapter is focused on the period going from 2014 to 2018. First, the reason for this choice is that such period comprehends the years in which the deals selected in Chapter 4 were carried out. The second reason is linked to the availability of data about the Italian private equity market provided by PEM[®]- an Italian observatory of the private equity market -, which are not yet complete for 2019. However, when possible, trends about 2019 are considered

according to the partial PEM[®] information already dispatched through online articles of national newspapers. The same holds also for data about the first semester of 2020.

Despite another national observatory - the Italian Association of Private Equity, Venture Capital, and Private Debt (AIFI) - already provided more recent and complete market data on its website (which we seldom refer to), we decided not to base the analysis on them because the focus of this work is on the private equity segment only (as meant by PEM[®]), whereas AIFI aggregates information about private equity and venture capital and an ex-post distinction was not always possible to perform.

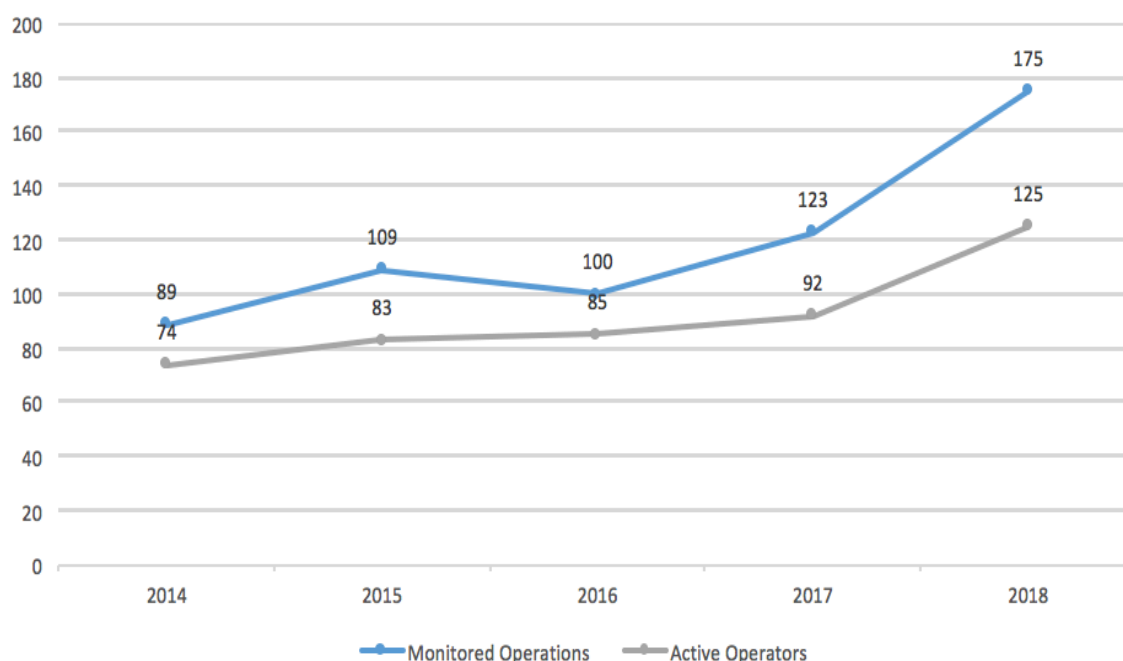
3.2.1 Deals Growth

Table 4: Monitored Operations and Active Operators 2014 - 2018

	2014	2015	2016	2017	2018	Tot.
Monitored Operations	89	109	100	123	175	596
Active Operators	74	83	85	92	125	459

Source: Personal elaboration of PEM[®] data

Figure 6: Monitored Operations 2014 - 2018



Source: Personal elaboration of PEM[®] data

In 2018, the total amount of resources invested in the Italian private equity and venture capital markets - especially thanks to some large scale operations in the buyout segment - reached its highest peak ever. At the end of the year, more than 1.200 target companies were included in the portfolio of private equity and venture capital funds operating in Italy, representing a counter value at the historical cost of acquisition of 33 billion Euro (AIFI, 2018).

Considering the private equity market only, in the years from 2014 to 2018, with the sole exception 2016, the private equity activity in Italy saw a continuous growth both in terms of deals number and active operators. Table 4 and Figure 6 above show the evolution in the number of operations monitored by PEM[®] in those years and that of the number of active operators.

In total, during the 5 years considered, 596 operations were carried out through highly heterogeneous strategies, meaning that the final number includes minority and majority stake acquisitions, acquisitions of the whole target companies, buyout investments, secondary buyouts, turnaround investments, etc., as we will see further on in the chapter. More in detail, after a quasi-stable progression of the market in the first years, when deals went up from 89 in 2014 to 109 in 2015 and then down to 100 in 2016, the market saw a sharp increase in 2017 and 2018, when at the end the number of total deals reached 175. The growth continued in 2019, year in which 221 operations were observed. The number in the first semester of 2020 - despite the negative economic impact of Covid-19 - is 93, which is in line with the first semester of 2019 (Malpensa24, 2020). Following, the number of active private equity firms for the period considered in the table had a trend coherent with that of the number of deals, reaching its peak (125) in 2018. To conclude, in terms of market concentration, in 2018 the market resulted less concentrated than in the previous years, with 29 players gathering 50% of all the activities (compared to 22 in 2017 and 20 in 2014) (PEM[®] report, 2014;2015;2016;2017;2018).

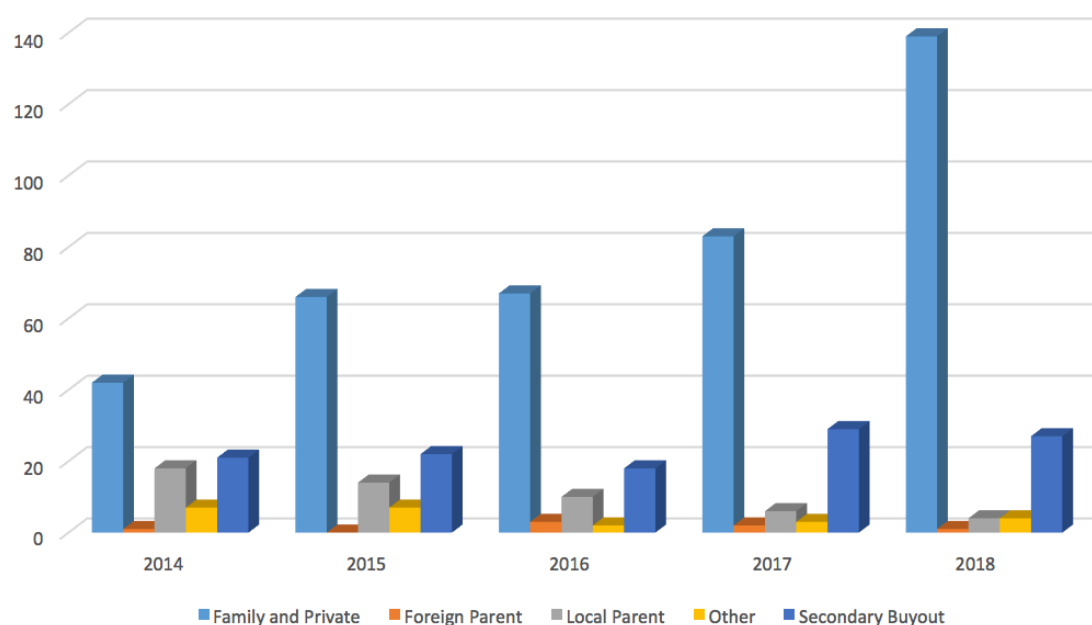
3.2.2 Deals Origination

Table 5: Deals Origination 2014 - 2018

	2014		2015		2016		2017		2018		Tot.	
Family and Private	42	47%	66	61%	70	70%	83	67%	139	79%	400	67%
Foreign Parent	1	1%	0	0%	3	3%	2	2%	1	1%	7	1%
Local Parent	18	20%	14	13%	8	8%	6	5%	4	2%	50	8%
Other	7	8%	7	6%	3	3%	3	2%	4	2%	24	4%
Secondary Buyout	21	24%	22	20%	16	16%	29	24%	27	15%	115	19%
Tot.	89	100%	109	100%	100	100%	123	100%	175	100%	596	100%

Source: Personal elaboration of PEM[®] data

Figure 7: Deals Origination 2014 -2018



Source: Personal elaboration of PEM[®] data

Moving to a deeper level of analysis, Table 5 and Figure 7 above show how the majority of operations were originated by a change in ownerships from family shareholders, interested in divesting, to new groups of shareholders, interested in taking control of the companies (Family and Private).

In particular, family and private transactions, on average, accounted for 67% of the total deals, reaching a peak of 79% in 2018. The results are in line with the data presented in Chapter 2 and can be seen as a consequence of the characteristics of the Italian business environment, mainly composed by family firms managed by the founder and/or its family. In addition, they follow the trend already identified in the analysis performed by Buttignon et al. (2005) on deals from 1995 to 2003. In their words, interventions on family

business were “one of the most common investment rationale for a private equity operator, who has to implement the generational change as well as the ensuing restructuring of the company in terms of financial, strategic and organizational aspects” (Buttignon et al., 2005).

Also, according to recent news the investments in family companies accounted for 77% of the total deals realized in 2019, confirming their strong predominance (Malpensa24, 2020).

The other types of deal origination, clearly a neat minority compared to the category “Family and Private”, could be defined as follow:

- a) “Foreign Parent”: disposal of business units from foreign groups;
- b) “Local Parent”: disposal of business units from national groups;
- c) “Other”: deal types not classified;
- d) “Secondary Buyouts”: acquisitions of a firm already in the portfolio of a private equity investor.

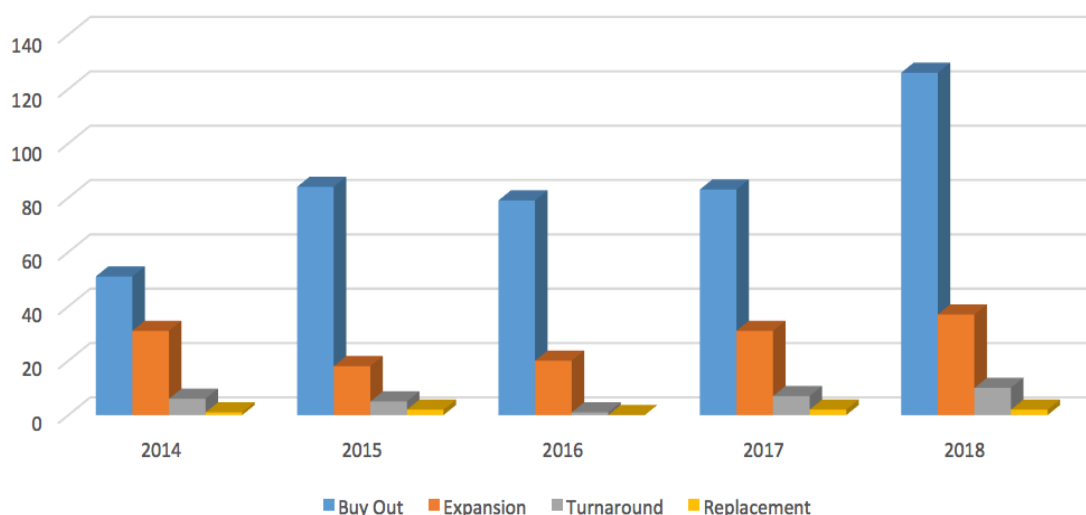
3.2.3 Deals Investment Stage

Table 6: Deals Investment Stage 2014 - 2018

	2014		2015		2016		2017		2018		Tot.	
Buy-Out	51	57%	84	77%	77	77%	83	67%	126	72%	421	71%
Expansion	31	35%	18	17%	22	22%	31	25%	37	21%	139	23%
Turnaround	6	7%	5	5%	1	1%	7	6%	10	6%	29	5%
Replacement	1	1%	2	2%	0	0%	2	2%	2	1%	7	1%
Tot.	89	100%	109	100%	100	100%	123	100%	175	100%	596	100%

Source: Personal elaboration of PEM® data

Figure 8: Deals Investment Stage 2014 - 2018



Source: Personal elaboration of PEM® data

With reference to the number of operations by stage of investment, throughout the period considered buyouts were by far the leading type of investment performed by private equity funds.

As depicted in Figure 8 above, from 2015 onwards they always represented more than 66% of the total investments, reaching a peak of 72% in 2018. On average instead, during the 5 years buyouts represented 71% of the total number of deals. More recent data confirmed such trend for the first semester of 2020, signalling that buyouts accounted for 80% of total operations monitored (Malpensa24, 2020). According to AIFI (2020), the predominance of buyouts as investment type confirms how operators concentrate their attention towards deals in which the acquisition of a majority equity stake allows them to maximize returns.

As for what concerns expansion investments, they are the only type other than buyout with a significant market quote. Such quote was 23% considering a 5-year average, with a peak of 35% in 2014.

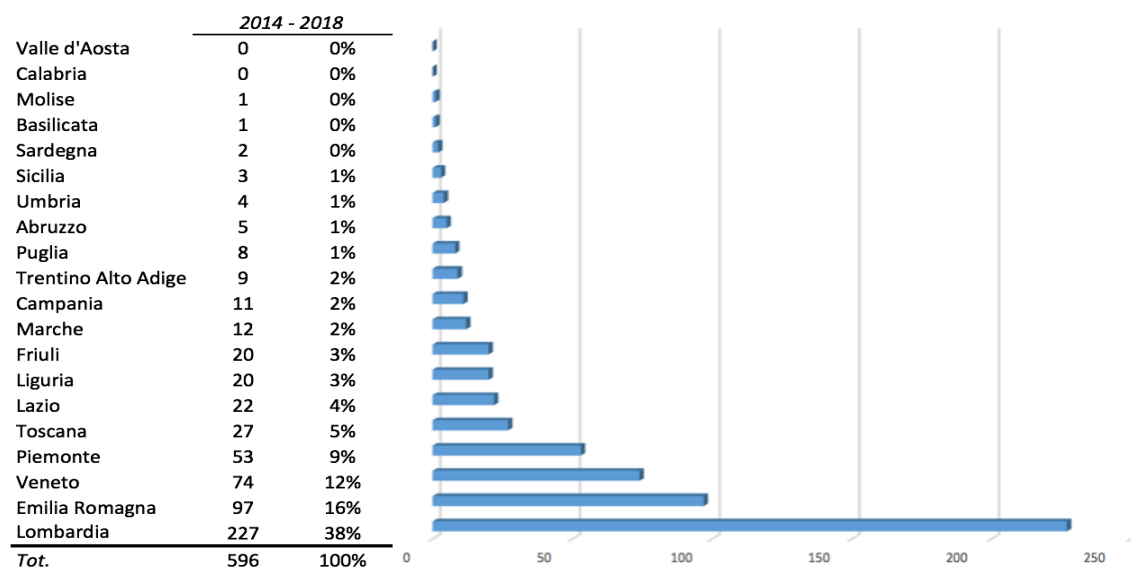
Following, turnaround and replacement investments represented (always on average in the 5-year period) only 5%, and 1% of the total number of investments, respectively.

3.2.4 Geographic Area and Sector

Geographical Distribution

Considering the geographical distribution of the 596 deals occurred from 2014 to 2018, we can see that it is mainly concentrated in Northern Italy, as shown in Figure 9. In particular, Lombardia, Emilia Romagna, Veneto, and Piemonte together accounted for 75% of the deals.

Figure 9: Geographic distribution 2014 - 2018



Source: Personal elaboration of PEM[®] data

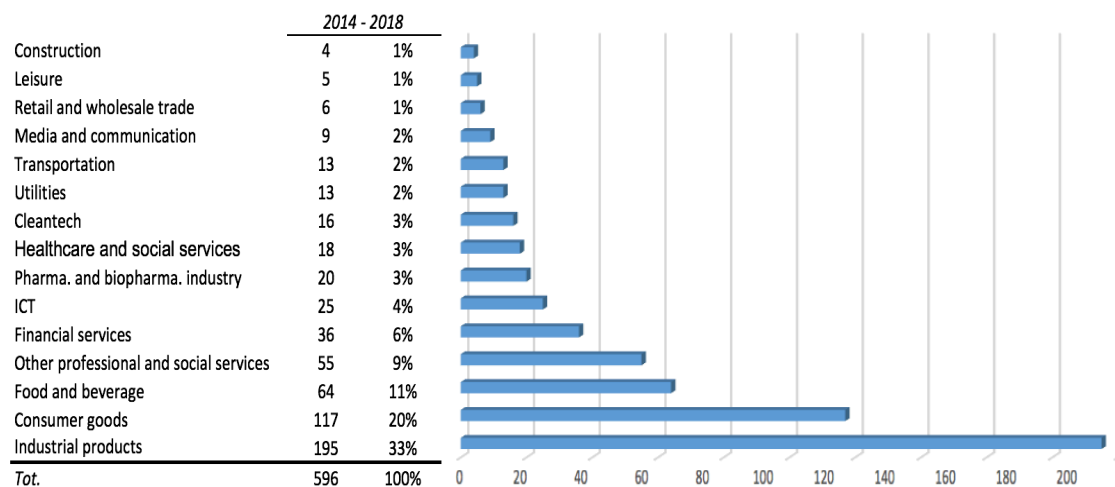
This trend, once again, is confirmed in 2019 and in the first semester of 2020, when the four regions collected around 73% of the total deals. The involvement of businesses in Southern Italy instead remains stable at around 4% (Malpensa24, 2020). Not surprisingly - especially considering how the economic activity in general is mostly concentrated in the northern part of the peninsula - also Buttignon et al. (2005), analysing the period from 1998 to 2003, reported a similar result for the geographical distribution of “Family and

Private” deals in Lombardia, Emilia Romagna, Piemonte, and Veneto, which at that time accounted for 82% of the total transactions.

Sector Distribution

Moving on, an overview of the sectors involved is presented. It is of paramount importance to understand which sectors attracted most deals since the sector concentration has a strong impact on other variables of the analysis, for instance median sales and Enterprise Value (EV) of target companies. During the five years, the surveys constantly showed a preference of market players for the traditional compartment of industrial products (33% of total deals), followed by consumer goods (20%), and food and beverage (11%), as depicted in Figure 10 below.

Figure 10: Sector Distribution 2014 - 2018



Source: Personal elaboration of PEM[®] data

More in detail, the industrial products sector attracted 32% of the deals in 2018 while the consumer goods and the food and beverage sectors collected 20% and 13% of them, respectively. According to new data, the results of 2019 are in line with those of 2018. Also, at the end of 2020 such preferences should be confirmed given that in the first semester the industrial products and food and beverage sectors alone gathered almost 50% of the total operations monitored (Malpensa24, 2020).

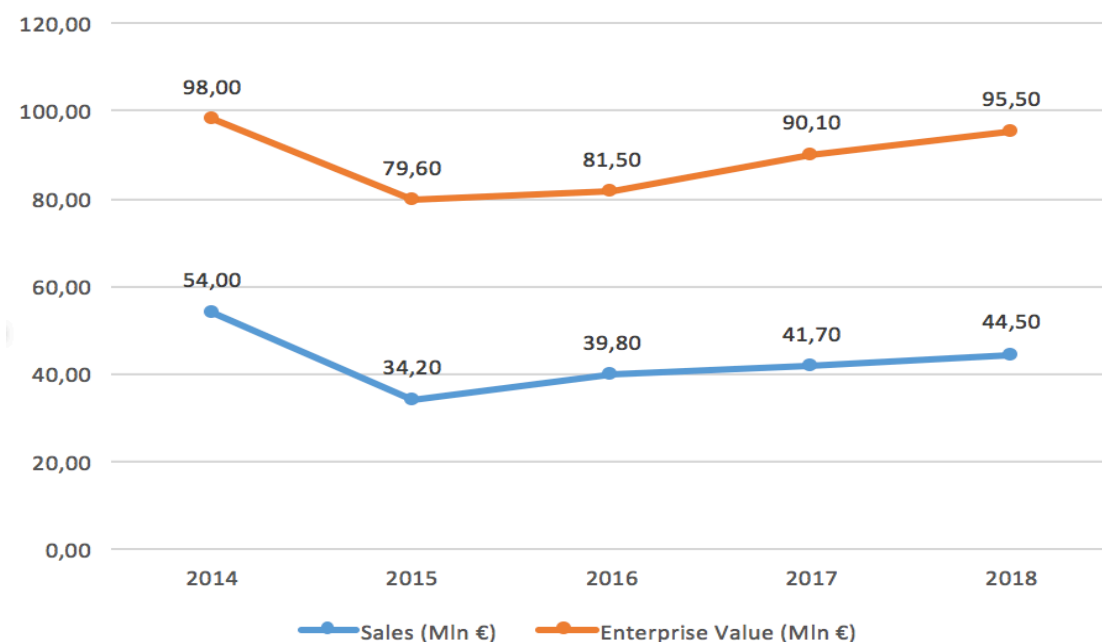
3.2.5 Targets Financials

Table 7: Median Targets Financials 2014 - 2018

	2014	2015	2016	2017	2018
Sales (Mln €)	54.0	34.2	39.8	41.7	44.5
Enterprise Value (Mln €)	98.0	79.6	81.5	90.1	95.5
EV/EBITDA	7.1x	7.7x	7.9x	9.2x	10.1x

Source: Personal elaboration of PEM[®] data

Figure 11: Median Targets Sales and EV



Source: Personal elaboration of PEM[®] data

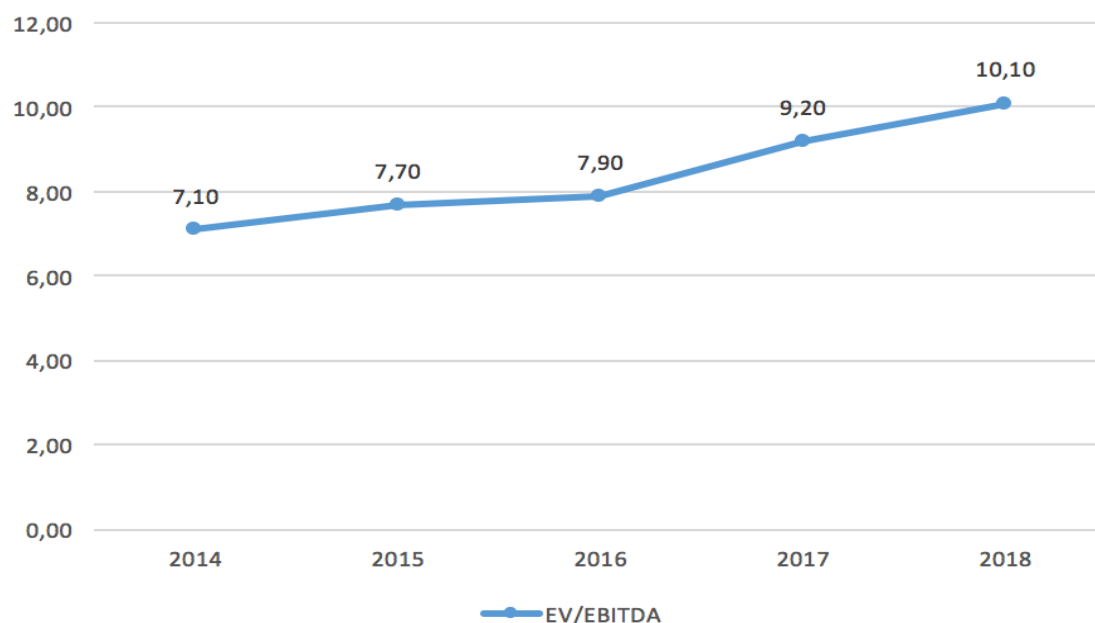
A further analysis performed in the Italian private equity market by PEM[®] regards the median size of the target companies in terms of sales and Enterprise Value and the median EV/EBITDA multiple of the transactions. By plotting data from Table 7, we can see in Figure 11 and 12 how these variables changed over the period considered. In particular, the median sales of target companies reached a peak of €54 million in 2014 and then declined to the lowest value of €34.2 in 2015. After 2015, they gradually started to increase up to almost €40 million in 2016, almost €42 million in 2017 and to €44.5 million in 2018. More in depth, the upward trend is explained by a reduction of the investments into targets which did not exceed €60 million (58% in 2018 compared to 60% in 2017), together with an increase of investments in big enterprises (9% in 2018 compared to 6%

in 2017) (PEM[®] Report, 2018). Data for 2019, instead, showed a trend reversal, with the median sales down to €35.6 million (Malpensa24, 2020).

Moving to the median Enterprise Value (EV), it mainly followed the trend of the median sales. It did so also in 2019 when, according to data reported in recent articles, its median value was down to around €75 million (Malpensa24, 2020). In short, after 4 years of constant growth both in terms of sales and EV of the median target firms, in 2019 private equity operators changed this trend and focused more in smaller businesses. Such evidence comes also from the lower number of employers of the median target, which dropped to 112 compared to 142 in 2018 (AIFI, 2020).

Moving to the analysis of the EV/EBITDA multiple, as shown in Figure 12 below, it gradually increased from a value of 7,10x in 2014 to its highest value of 10,1x in 2018. According to PEM[®] analysts, the constant expansion of the multiples is due, in the first place, to the increasing competition among private equity players brought especially by foreign funds interested in investing in the Italian market and with large capitals availability. This is also reflected by the decreasing concentration of the market players, as described in section 3.2.1. In the second place, the investments in prestigious companies of the Italian industrial arena - either because of their prestigious brands or their leadership position in the market - also contributed to the growth of the median EV/EBITDA multiple. On the other side, it is reasonable to assume that the median EV/EBITDA multiple growth is not linked to different sectors' characteristics. Indeed, as explained in section 3.2.4, during the period considered the private equity activity did not see any relevant change in the first three sectors involved in terms of number of operations. Last, the median value of the multiple registered in 2019 is 9,1x (Malpensa24, 2020), slightly lower than that of 2018. The reason is probably linked to the smaller size of the median target firm, as explained above.

Figure 12: Median Targets EV/EBITDA



Source: Personal elaboration of PEM[®] data

3.3 Conclusions

The analysis made in this chapter highlighted a very active and attractive market for private equity in Italy. Data on deals growth showed a persistent increase in operations and active operators in the years considered. The peak was reached in 2018, when 175 deals were concluded by 125 private equity houses. Buyouts consistently represented the preferred stage of investment, followed by expansion, turnaround and replacement investments. In terms of deal origination, family firms were by far the most popular targets. In fact, in only 5 years investments in this category grew from 42 deals (in 2014) to 139 (in 2018), representing almost 80% of the total market. Concerning the geographical area and the sectorial distribution, Lombardia, Emilia Romagna and Veneto alone gathered 66% of total deals, while the most appealing sectors were the ones related to industrial products, consumer goods and food and beverage, which together accounted for 64% of total deals. Last, with regard to targets financials, the median sales value was of €44,5 million in 2018, whereas, median enterprise value and EV/EBITDA were of €95,5 million and 10,1 points, respectively. Each of these three numbers increased from 2015 to 2018,

reasonably as a consequence of the increasing competition in the market which brought private equity houses to look for more prestigious targets and pushed multiples up.

Concluding, the data presented in this chapter, which specifically focused on the Italian market, are in line with the more general ones presented in Chapter 2. They further proved a strong interaction between private equity firms and family businesses, giving us the necessary material to reach one of our minor objectives. Following, in order to address the main purpose of this dissertation, Chapter 4 will finally look at the effects of family firms' buyouts on targets' financial performance.

EMPIRICAL EVIDENCE

4.1 Introduction

In the previous chapters, we discussed how the world of private equity and its way of creating value in portfolio companies might seem in deep contrast with the business logics of family firms, making the two economic actors appear completely incompatible. Nonetheless, we also showed that such point of view is not always appropriate and the reasons, as highlighted in Chapter 2, lie on the potential reciprocal benefits that private equity and family businesses might gain from their interactions. Data on transactions are clearly in favour of this last argument, indeed, despite business-owning families are often reluctant to lose control over their firms, family businesses buyouts persistently showed a positive growth trend over the last years. However, the analysis made in Chapter 2 concerning the post-deal family firms' performance did not show a clear pattern, especially if compared with the more general one performed in Chapter 1. The goal of the following pages of this dissertation is therefore that of providing additional evidence on the impact of private equity deals on family firms' financial performance.

We studied 60 buyouts transactions performed on Italian family firms between 2014 and 2018. Initially, we presented a brief overview of the main aspects related to the deals observed, including the years when they were performed, the equity stake acquired, the geographical locations of the target companies as well as their sectors. Then, in order to understand the impact on growth, efficiency, profitability, and capital structure, we carried out a quantitative analysis based on 13 financial indicators extrapolated from firms' financial statements. The results are presented in section 4.3. Following, mostly due to the misleading effects of some accounting rules related to buyouts, which negatively affected the interpretation of most variables, we performed a more qualitative investigation

regarding the trends of the most relevant indicators of performance, namely sales and EBITDA margin. The outcome of this last investigation is presented and discussed from section 4.4 to 4.5.

4.2 Analysis of selected deals

In order to provide additional evidence about the impact of private equity investors on family firms, an analysis of a sample of buyouts conducted in Italy between 2014 and 2016 was performed.

The existing literature focused on the performance of private equity portfolio companies by studying their financial statements with different approaches. On the one hand, some studies tried to spread some light on the impact of the investors by comparing the targets' performance in the years pre-deal with those post-deal (e.g. Buttignon et al., 2005; Kaplan, 1989; Opler, 1992). On the other hand, other studies did so by comparing the performance of the portfolio companies with that of a carefully selected benchmark not involved in any private equity deal (e.g. Battistin et al, 2017; Guo et al., 2011).

In this work, the first approached was adopted and thus the performance of the target family firms was thoroughly examined in the two years preceding the deal and in the three years following it. In the first place, the two years before the investments were useful to understand the financial trends in the observed indicators for any target company. Second, the two years following the deal were needed to show the impact of the investments in those indicators over time. Note that the observed time frame of the post-deal observations is slightly shorter than the average private equity holding period: the choice was a compromise between the need to track the post-deal performance as much as possible and the need to avoid the impact of possible exit strategies (which for some of the selected deals occurred exactly after two years) on the accounting data.

Moreover, the choice of focusing on Italian family firms only was tied to the availability of information about private equity deals and the necessary supporting data (i.e. financial statements).

Last, the choice of buyouts over other investment types was taken according to two necessities. First, the need of abstracting as much as possible from governance issues that normally arise in minority investments. Coherently, in the sample of family firm-buyouts selected for the analysis, the average equity stake bought by the private equity investors is 74%.

Second, as discussed in the previous chapters, buyouts almost certainly make sure that a restructuring process in governance and managerial aspects of the company occurs, allowing in this way the private equity house to implement all the typical value creating activities. Indeed, in 98% of the observed cases in our sample either the CEO or other figures in the management team of the portfolio companies were replaced the deals.

4.2.1 Data collection

For the purpose of the analysis, an original dataset was created by collecting information from three different sources: PEM[®] annual reports, the Aida database provided by Bureau Van Dijk, and private equity firms' websites.

The data-gathering and elaboration process was conducted as follows. To begin with, PEM[®] annual reports of 2014, 2015, and 2016 were downloaded and elaborated in order to assemble a set of private equity transactions carried out in those years. Choosing the years of analysis, some issues were taken into consideration: on the one hand, the need to track the target companies' financial performance up to 2 years pre-deal (from T-1 to T-2) and 2 years post-deal (from T1 to T2), coherently with the motivations explained above. On the other hand, the availability of the accounting data from Aida, which are normally provided for the 10-year period going from 2009 to 2019 (even though data for 2019 are often still missing). This is to say that the analysis could not be performed properly on deals completed in 2017, and that it could not be performed at all on deals occurred after 2017. Whereas, deals concluded in years previous to 2014 were not considered in order to reduce as much as possible the effect of the 2008 global crisis on the analysis of the pre-deal firm performance (thus, the earliest pre-deal year considered was 2011).

In its first form, the dataset contained 298 deals completed by national and international investors interested in Italian target companies. From this point, the results were filtered according to the origination of the deals and their investment stage: only those involving "Buyouts" on "Family and Private" transactions were selected (for a detailed definition of "Buyouts" and "Family and Private" deals see section 1.2.2 and 3.2.2), leaving the dataset with 128 records. The resulting sample, however, had to be further reduced to 60 records: this is the final number of observation on which the statistical analysis was performed. The reasons for the last curb were the following:

- The target's firm financial statements were not available in Aida;

- The target's firm financial statements were not available for all the years included in the analysis;
- The target's firm financial statements were not comparable due to the nature of the deal e.g. the target firm was merged with other already existing companies.

After the 60 target companies (for which complete and comparable data are available) were identified, their balance sheets and income statements (from year T-2 to year T2) were collected and elaborated in order to gather the following financial information:

- Turnover, EBITDA, and Net Income;
- Fixed assets, Net Working Capital;
- Financial debt, taxes;
- N. of employees.

Consequently, from the accounting data the following set of ratios were computed:

- ROS (Return on Sales), ROA (Return on Assets), and ROE (Return on Equity);
- Employees' productivity.

Then, in order to adjust target companies' turnovers included in the dataset - as specified in section 4.2.2 - information about sector's trends was collected from the Istat's website, section "national accounts; "data and microdata"; "output and value added by industry". Last, for the qualitative analysis performed in paragraph 4.5.4, we integrated the information found in PEM[®] annual reports and the Aida database by looking at specific data on each private equity fund's website: these are summarized in Table 15.

4.2.2 Methodology

In order to understand the impact of the private equity investments on target firms, a comparison between their performance on years pre-deal (T-) and years post-deal (T+) was carried out. As a first step, turnovers from financial statements were adjusted for every company according to the relative macro-sector trends. The operation was done by normalizing the indicators in T and consequently subtracting the appropriate sector's trend to each company's trend. The effect is that a turnover's increase is reduced where the related sector's trend is positive and vice versa. In such a way, target companies' results are abstracted as much as possible from the economic performance of the markets in which they operate, consequently linking every change in the data more closely to the company's characteristics first, and to the private equity activity then.

Following, the mean for every indicator was calculated distinguishing from period T- and T+, thus resulting in the following two means for each variable for each company: Mean T- and Mean T+. In other words, considering the example of turnover, for every company Mean T+ represents the mean turnover in years T1 and T2, while Mean T- is the mean turnover in years T-1 and T-2.

To assess the statistical significance between the difference in the two means, a Wilcoxon signed-ranks test was performed. In short, the Wilcoxon signed-ranks test is a non-parametric test used to evaluate whether the median difference of two correlated samples is significant or not. It was selected as a preferred option over the T-test given the small size of the sample studied and the non-normal distribution of the means of the variables considered. Eventually, such test allowed for a better analysis of the data used, also providing more statistically significant results.

Last, as previously done by Buttignon et al. (2005), a comparison of the trends pre and post-deals in the most significant indicators was conducted. For this purpose, following the existing literature, turnover and EBITDA margin were selected: the former variable was considered as a good proxy for the development of competitive strength, while the latter as a good proxy for the overall level of efficiency achieved (Buttignon et al., 2005). The trends were identified by performing a linear regression with turnover and EBITDA margin as dependent variables, and using time as the independent one. Therefore, the values expressed under the labels “Trend -” and “Trend +” represent the slope of the line that best approximates the pattern of the two above mentioned variables over the years, namely their trends. The impact of the private equity investors instead was thought to be summarised in their delta.

4.2.3 The deals

Considering the sample of 60 family firms on which the empirical analysis was conducted, 13 of them were carried out in 2014 (21% of the total), while the remaining 47 were concluded in 2015 (37%) and in 2016 (42%), as Table 8 shows.

Table 8: Deals per Year

Deal Year	Number	%
2014	13	22%
2015	22	37%
2016	25	42%
Tot.	60	100%

Source: Personal elaboration

The buyouts considered were concluded by 44 Italian and international PE houses, all of which acquired a majority equity stake in the selected target company. The share of equity bought ranged from 50% to 100%, with a mean value of 74% over the three years observed (Table 9).

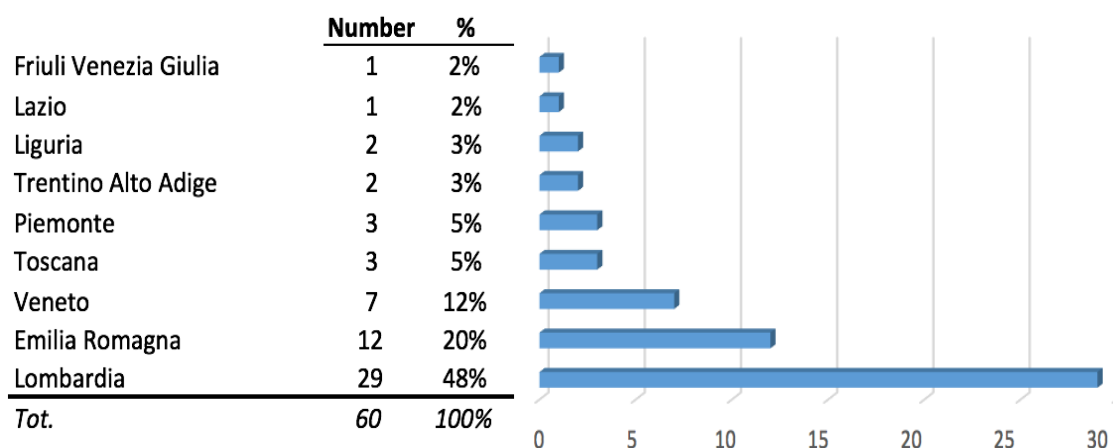
Table 9: Mean equity stake and n. of PE houses

Mean Equity Stake	<u>2014 - 2016</u> 74%
N. of PE houses	44

Source: Personal elaboration

In line with the data presented in Chapter 3, the geographical distribution of the selected deals is mostly concentrated in Northern Italy (Figure 13). The most represented Italian regions - accounting for 80% of total deals - were Lombardia (29 deals), Emilia Romagna (12 deals), and Veneto (7 deals). Piemonte and Toscana collect together 10% of the deals, with 3 transactions for each region. The other 10% of the deals was almost evenly spread among Trentino Alto Adige, Liguria, Lazio and Friuli Venezia Giulia. No Southern Italy regions were involved in the transactions considered in the sample.

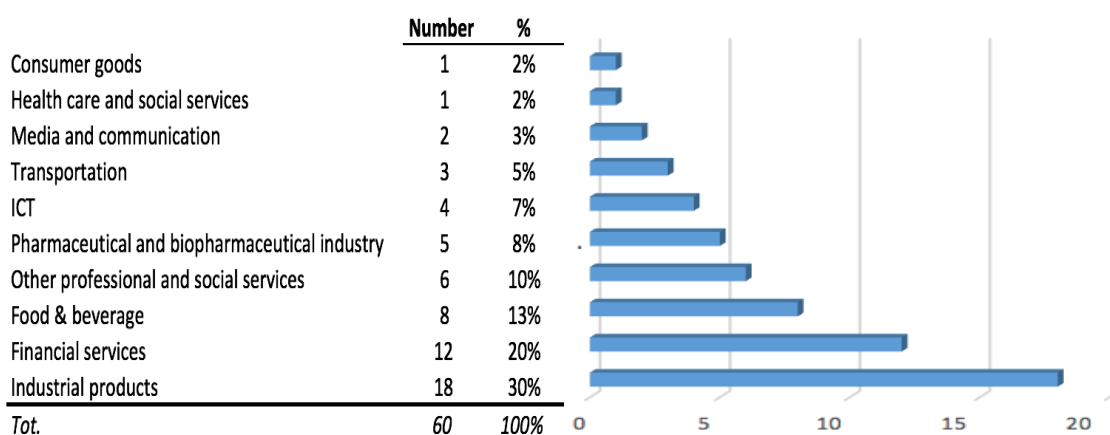
Figure 13: Deals per Region



Source: Personal elaboration.

Following, if we consider the sectorial distribution of the deals, Figure 14 below shows how they are concentrated in the industrial products and financial services sectors, which include 50% of the deals analysed. More in particular, 18 transactions (30%) occurred in the industrial products sector, while 12 (20%) in the financial services sector. Following, the food and beverage and other profession and social services sectors accounted for 13% and 10% of the deals, respectively. Other 6 sectors accounted for the remaining part (28%) of the transactions.

Figure 14: Deals per Sector



Source: Personal elaboration

4.2.4 Variables and summary statistics

As already stated, the effects of buyouts on target family firms were empirically analysed through a set of indicators based on financial statements' data. The statistical analysis was concentrated on those accounting lines and ratios that should best represent the effect of the private equity activities - as explained in Chapter 1 and 2 - and, more in general, the overall performance of a company. Consistently, some variables were considered as a proxy for the degree of growth (e.g. turnover and number of employees), whereas some others as a proxy for the degree of efficiency reached (e.g. EBITDA, EBITDA margin, productivity), and others for the level of profitability (e.g. ROE, Net Income/Turnover). In addition, the impact of the investment activity on targets' capital structure was observed thanks to indicators such as tax on turnover and the level of financial debt on turnover.

Note that some variables were divided by the total sales of the respective years in order to remove the target company size's effect.

Table 10 includes the variables utilized in the analysis, reporting their means and standard deviations for each year (from T-2 to T2) observed. In the second panel, the same data are normalized in T.

Table 10: Variables and Summary Statistics

	T2		T1		T		T-1		T-2	
	Mean	St. dev.	Mean	St. dev.	Mean	St. dev.	Mean	St. dev.	Mean	St. dev.
Turnover (€ m.)	42,78	41,05	40,33	38,97	39,36	39,71	37,07	38,01	35,09	38,54
EBITDA (€ m.)	4,65	7,85	4,03	8,74	5,00	6,05	4,65	4,59	4,05	4,09
EBITDA Margin (%)	13,51	16,43	12,81	14,15	14,77	13,78	14,69	9,40	13,70	8,20
ROS (%)	4,24	15,65	4,33	14,17	6,72	13,19	10,47	9,12	9,72	8,29
ROA (%)	4,79	14,46	3,73	12,61	9,78	17,50	13,51	10,57	12,87	11,94
ROE (%)	10,47	20,26	3,40	26,66	13,03	26,97	18,83	22,47	19,23	21,41
Net Income/Turnover (%)	1,94	15,46	1,50	11,47	4,82	10,95	6,91	7,03	5,90	6,45
Net Working Capital/Turnover (%)	26,20	48,23	21,45	25,85	22,78	21,49	23,85	24,32	22,47	22,47
Tax/Turnover (%)	1,95	4,22	1,78	4,67	3,91	4,53	3,87	3,05	3,58	2,89
Fixed Assets/Turnover (%)	0,82	1,09	0,86	1,22	0,59	0,81	0,24	0,22	0,24	0,23
Leverage (%)	2,88	2,77	4,27	7,90	3,20	3,48	3,48	2,84	3,68	3,39
Employees	146	176	138	165	129	162	122	156	117	154
Productivity (%)	6,44	3,38	7,02	5,21	7,76	5,38	8,16	5,01	8,15	5,05
Turnover (€ m.)	1,09	1,03	1,02	0,98	1,00	1,00	0,94	0,96	0,89	0,97
EBITDA (€ m.)	0,93	1,30	0,81	1,44	1,00	1,00	0,93	0,76	0,81	0,68
EBITDA Margin (%)	0,91	1,19	0,87	1,03	1,00	1,00	1,00	0,68	0,93	0,60
ROS (%)	0,63	1,19	0,64	1,07	1,00	1,00	1,56	0,69	1,45	0,63
ROA (%)	0,49	0,83	0,38	0,72	1,00	1,00	1,38	0,60	1,32	0,68
ROE (%)	0,80	0,75	0,26	0,99	1,00	1,00	1,44	0,83	1,48	0,79
Net Income/Turnover (%)	0,40	1,41	0,31	1,05	1,00	1,00	1,43	0,64	1,22	0,59
Net Working Capital/Turnover (%)	1,15	2,24	0,94	1,20	1,00	1,00	1,05	1,13	0,99	1,05
Tax/Turnover (%)	0,50	0,93	0,46	1,03	1,00	1,00	0,99	0,67	0,92	0,64
Fixed Assets/Turnover (%)	1,38	1,35	1,46	1,52	1,00	1,00	0,41	0,27	0,41	0,29
Leverage (%)	0,90	0,80	1,33	2,27	1,00	1,00	1,09	0,82	1,15	0,97
Employees	1,13	1,09	1,07	1,01	1,00	1,00	0,94	0,96	0,91	0,95
Productivity (%)	0,83	0,63	0,90	0,97	1,00	1,00	1,05	0,93	1,05	0,94

Source: Personal elaboration

4.3 Impact of private equity investors on family firms

Table 11 below shows the differences in the means of the observed variables in the two years post-deal (Mean T+) and in the two years pre-deal (Mean T-). Column W reports the W-values of the Wilcoxon signed-ranks test, while the last column indicates their level of significance.

Certain levels of significance were found between Mean T+ and Mean T- in most variables, namely Turnover, ROS, ROA, ROE, Tax/Turnover, Net Income/Turnover, Fixed assets/Turnover, Financial Debt/Turnover, Nr. Of Employees, and Productivity. Whereas, the differences in the means of the remaining variables considered did not show any statistically relevant trend at this level of analysis.

Following, the relevant indicators are clustered into subgroups in order to understand what was the impact on portfolio companies under different point of views. In particular, growth, operating efficiency, capital structure, and profitability.

Table 11: Mean values T+ and T-

	Mean T-	Mean T+	W	P value	Sign.
Turnover (€ m.)	36,08	40,82	455	0,001	***
EBITDA (€ m.)	4,35	4,56	713	0,136	
EBITDA Margin	14,20%	13,69%	888	0,841	
ROS	9,59%	5,32%	296	0,000	***
ROA	13,19%	6,10%	264	0,000	***
ROE	20,19%	10,52%	296	0,000	***
Tax/Turnover	3,72%	2,55%	410	0,000	***
Net Income/Turnover	6,40%	2,75%	459	0,001	***
Net Working Capital/Turnover	23,16%	22,62%	773	0,522	
Fixed Assets/Turnover	24,01%	75,70%	217	0,000	***
Financial Debt/Turnover	6,20%	22,45%	115	0,000	***
Nr. Of Employees	119	137	270	0,000	***
Productivity	8,16%	7,07%	329	0,000	***

*** $p < 0,01$; ** $p < 0,05$; * $p < 0,1$

Source: Personal elaboration

4.3.1 Growth

Portfolio companies' growth is assessed by looking at three indicators, namely: turnover, Fixed Assets/Turnover, and Nr. Of Employees.

To begin with, the average turnover significantly increased from T- to T+, suggesting that most target companies were able to grow in the two years post-deal. Noteworthy is that

data on turnover are not adjusted for inflation, therefore part of the growth might be related to an overall increase in the level of prices. However, according to data provided by Istat, average inflation on the periods associated with T- and T+ was very low (approximately 1%) and therefore it did not significantly affect turnover's values.

Coherently with the results showed by the first indicator, both fixed assets on turnover and the number of employees were higher in T+ with respect to T-, supporting the fact that target companies grew after the PE investment. Clearly, any growth strategy at a certain point must be backed by growing underlying assets and human capital, which ties together the upward trend of these three variables. Even so, the extraordinary increase in the level of fixed assets as compared to turnover calls for further investigation. Most likely, a substantial part of the difference between its mean in T- and T+ is a consequence of the assets revaluation of the target companies - mainly concerning fixed tangible and intangible assets - that normally follows private equity deals (as explained in Chapter 1 and also observed by Buttignon et al. (2005)), rather than the effect of actual organic or external growth.

Concluding, although the value of fixed assets on turnover might suffer of a significant upward bias, altogether the three variables taken into consideration so far seem to indicate that family firms were able to grow in the years post-deal as compared to those pre-deal.

4.3.2 Operating efficiency

To evaluate the impact on operating efficiency, ROA, ROS, Productivity, EBITDA Margin, and Net Working Capital/Turnover were taken into consideration.

ROA - measured as operating income (i.e. Earnings Before Interests and Taxes (EBIT)) on total assets - substantially decreased in T+ as compared to T-. Since the ratio indicates the ability of a company to efficiently exploit its assets in order to generate operating profits, at first sight its decline might be linked to a loss in operating efficiency. However, the misleading effect of assets' revaluation, which mechanically brings ROA down, invalidate a correct interpretation of the indicator. In fact, net of the revaluation effect, it could also be possible that ROA would be higher in T+ with respect to T-, driving the analysis on operating efficiency to the opposite conclusion.

Continuing in this direction, also ROS - measured as operating income on total sales - visibly decreased after the investments. Again, the ratio is used to evaluate a company's operational efficiency and, in particular, it indicates how much operating profit is gained

for every euro of sales. Hence, its decline signals that target companies in T+ were not as efficient as in T- in transforming revenues into profits. The reasons for the deterioration of the margin might be many and are to be found in the accounting lines between sales and EBIT. To put it differently, in order to understand the negative impact on ROS, assumptions could be made about an overall increase of operating costs - such as sales and marketing, salary and wages, or depreciation and amortisation - which did not translate in augmented sales, thus lowering the margin of portfolio companies. Unfortunately at this level of analysis no conclusions could be drawn on the investments' impact on operating expenses as a whole. However, something might be observed with regard to depreciation and amortisation. Indeed, it is very plausible that they increased unproportionally with respect to sales (still due to the revaluation of fixed assets), thus strongly contributing to the reduction of EBIT first and, eventually, of ROS. As a consequence, even in this case the decline of the ratio cannot be directly linked to a worsening operating performance and calls for additional investigation.

Following, given the fact that EBITDA Margin, Productivity and Net Working Capital/Turnover are not influenced from the fixed assets' value in the balance sheet through their related annual costs, their integration in the analysis might help to provide a clearer picture of the investments' effects on operating efficiency.

In this sense, both Productivity and EBITDA Margin suggest a deterioration of the overall level of efficiency. In the first place, the decline in EBITDA Margin - even though not statistically significant - might indicate a more than proportional increase of the general and administrative expenses as compared to the prices charged by the targets, probably as a consequence of the implementation of new growth strategies associated with private equity investing.

Second, employees' productivity - calculated as total revenues on total labour costs - also worsened in the sample of family firms considered. Given the general rise in sales levels, the lower level of this margin could be attributed to its denominator. In other words, it could be a consequence of the high wages related to talented managers and directors introduced by the investment funds their portfolio companies, which inevitably brought labour costs up.

On the contrary, the reduction of (operating) net working capital on turnover might suggest that family firms were more efficient in managing short term assets and liabilities

generating from their core businesses. Indeed, a reduction in net working capital - through the mechanisms already explained in section 1.3.3 - allows a company to save financial resources that it otherwise would have had to gather with additional external debt. However, note that the change in the variable is not significant under a statistical point of view. In sum, it seems that the private equity activity had a negative effect on the operating performance of the sample of target firms analysed, at least in the short run. The evidence, however, is clearly supported only by the decline in the productivity level of employees. Indeed, ROA and ROS are negatively affected by the revaluation of assets related to accounting rules, which complicates their interpretation, and the decrease in the EBITDA Margin, even if existent, is not statistically significant.

4.3.3 Capital structure and taxes

Private equity's impact on capital structure and taxes on the selected family firms is analysed through the following indicators: Financial Debt/Turnover and Tax/Turnover. On the one hand, financial debt on turnover increased substantially in the years post-deal. As explained in Chapter 1, this is typical of buyout transactions, which normally involve the acquisition of companies through the use of large amount of debt.

On the other hand, despite tax over turnover significantly declined in T+, the result is not necessarily linked to an increase in the interest related deductions, as typically happens in the case of buyouts investments (see section 1.3.2). Or, at least, not for its entirety. In fact, it is plausible that the declining trend of the indicator is also associated with the non-monetary costs related to the fixed assets revaluation, which brought operating profits (and consequently the taxable amount) down, rather than only on an increase of the interests' fiscal shield.

4.3.4 Profitability

The comparison of family firms' profitability before and after the change of ownership is addressed by looking at Net Income/Turnover and ROE (i.e. net income over equity). Both indicators show a significant change in their means from T- to T+. In particular, the profitability of the family firms in the sample strongly declined in the 3 years following the deal, meaning that they were less capable of transforming turnover in actual profits on the one hand and, as a direct consequence, less able to remunerate their shareholders

on the other. Once again, however, the impact on profitability needs a more careful analysis than the one just presented: this is because a great portion of the profitability loss might not be linked to inappropriate management strategies but rather to the increasing amortisation and depreciation costs following the fixed assets revaluation. Nonetheless, the fact that even the EBITDA margin declined in T+ with respect to T- would call for further investigation also on which part of the cost structure prevented the sample of family firms to be as profitable as it was in T- the most.

4.3.5 Discussion

The statistical analysis performed above is strongly limited by the assets revaluation that follows any private equity buyout. This fact precluded us the opportunity to draw meaningful and exhaustive considerations regarding variables connected to operating efficiency and profitability, which are both affected by the overall increase of amortization and depreciation costs. To be more precise, the only evidence that emerged at this level of analysis in terms of operating efficiency is related to employees' productivity, which significantly dropped in T+.

Nevertheless, some significant findings were highlighted with respect to other indicators. First, portfolio companies were able to grow substantially in the years post-deals both in terms of turnover and of number of employees. Second, the great increase in financial debt in the years following the deals confirm the intensive use of debt in buyouts transactions.

4.4 Trends analysis

The analysis presented above provides a first understanding of the impact that private equity funds had on the selected sample of family firms during the first 3 years from the ownership's change. However, one of the most important indicator for efficiency (EBITDA margin) did not show any clear trend so far. Plus, most results are significantly affected by the accounting rules associated with buyout transactions, disallowing their proper interpretation. Therefore, in order to better comprehend the impact of the investments, an analysis of the trends of the most relevant variables, namely turnover and EBITDA margin, was performed for every company in the two years pre (T-) and the three years post-deal (T+) (see Table 12, Figure 15 and Figure 16).

Note that, by focusing on the trends of the above mentioned variables for each company, it was possible to observe whether the private equity investors were able to steer a declining performance into a positive one or vice versa. In this way, an additional investigation on the “discontinuity effect” of private equity funds highlighted by Buttignon et. al. (2005) is also provided.

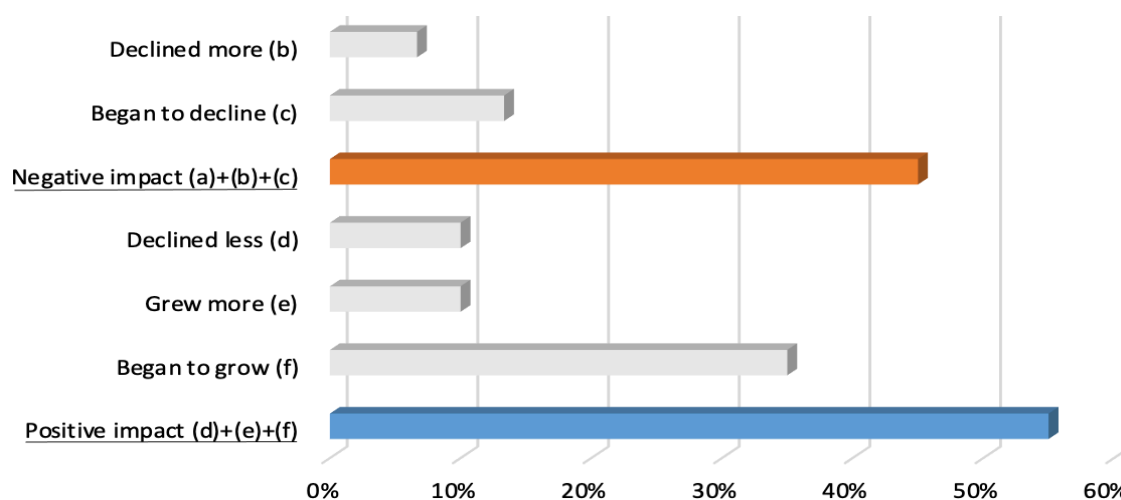
Table 12: Turnover and EBITDA Margin trends pre and post investment

Turnover						EBITDA Margin					
Nr.	T-	T+	Delta			Nr.	T-	T+	Delta		
1	0,80	1,02	0,21	+	+	2	-4,64	0,17	4,81	+	+
2	6,06	16,11	10,05	+	+	4	-9,52	0,62	10,14	+	+
3	-1,17	0,75	1,93	+	+	5	-0,40	1,69	2,09	+	+
5	-0,11	6,07	6,18	+	+	6	0,43	0,58	0,15	+	+
6	4,78	16,63	11,85	+	+	9	-8,56	0,06	8,63	+	+
10	4,43	6,91	2,48	+	+	10	3,25	3,88	0,63	+	+
13	0,13	1,02	0,89	+	+	18	-2,94	3,14	6,08	+	+
14	0,97	1,29	0,32	+	+	21	3,85	18,57	14,72	+	+
15	-18,22	3,05	21,27	+	+	23	-1,35	1,47	2,82	+	+
16	0,21	1,83	1,62	+	+	24	-0,92	2,86	3,78	+	+
17	-0,36	0,75	1,11	+	+	27	-4,66	2,89	7,55	+	+
19	1,78	1,82	0,04	+	+	29	-0,63	5,60	6,23	+	+
23	0,81	1,78	0,96	+	+	30	-0,96	19,56	20,52	+	+
27	-1,50	0,16	1,66	+	+	37	-0,93	0,17	1,10	+	+
29	2,35	7,36	5,01	+	+	38	-3,42	1,45	4,87	+	+
30	0,78	1,27	0,50	+	+	39	-0,30	0,36	0,65	+	+
33	0,59	4,53	3,94	+	+	41	-10,52	0,96	11,48	+	+
37	-3,48	2,31	5,79	+	+	56	0,31	0,78	0,47	+	+
39	3,56	22,81	19,24	+	+	58	-0,16	5,78	5,94	+	+
43	1,06	3,84	2,78	+	+	15	-4,60	-2,74	1,87	-	+
45	2,57	3,32	0,76	+	+	53	-8,87	-0,94	7,93	-	+
47	7,85	8,88	1,03	+	+	55	-6,92	-4,12	2,81	-	+
49	1,13	1,69	0,56	+	+	1	3,46	0,68	-2,78	+	-
51	2,23	2,60	0,38	+	+	3	1,11	0,30	-0,81	+	-
55	0,48	0,70	0,22	+	+	13	4,09	1,08	-3,02	+	-
56	5,11	8,93	3,82	+	+	20	1,69	1,06	-0,63	+	-
60	6,63	11,48	4,85	+	+	28	3,09	0,78	-2,31	+	-
12	-8,51	-3,95	4,55	-	+	32	1,06	0,77	-0,30	+	-
28	-0,54	-0,25	0,29	-	+	33	0,57	0,53	-0,04	+	-
35	-0,32	-0,14	0,18	-	+	36	4,34	2,22	-2,12	+	-
41	-4,83	-1,05	3,78	-	+	40	8,52	4,57	-3,96	+	-
53	-2,37	-0,10	2,27	-	+	44	1,97	0,59	-1,39	+	-
57	-3,27	-0,26	3,00	-	+	49	4,91	1,90	-3,01	+	-
4	4,72	1,53	-3,19	+	-	51	6,21	0,52	-5,69	+	-
7	1,97	1,22	-0,75	+	-	7	11,45	-31,29	-42,74	-	-
9	0,60	0,34	-0,26	+	-	8	1,07	-12,56	-13,63	-	-
20	6,23	4,22	-2,01	+	-	11	10,98	-6,62	-17,60	-	-
32	6,97	2,59	-4,39	+	-	12	0,01	-13,22	-13,23	-	-
34	3,21	2,22	-0,99	+	-	14	5,31	-1,19	-6,50	-	-
36	4,18	0,57	-3,62	+	-	16	8,74	-4,34	-13,08	-	-
38	6,78	4,12	-2,66	+	-	17	1,03	-1,72	-2,75	-	-
40	1,27	0,71	-0,56	+	-	19	0,02	-0,55	-0,57	-	-
42	5,39	3,17	-2,22	+	-	22	6,18	-4,62	-10,80	-	-
48	0,21	0,10	-0,11	+	-	25	2,80	-4,41	-7,21	-	-
52	0,65	0,04	-0,61	+	-	26	3,16	-2,31	-5,47	-	-
54	5,02	1,87	-3,15	+	-	31	0,12	-0,76	-0,88	-	-
58	0,52	0,50	-0,02	+	-	34	-0,79	-0,86	-0,07	-	-
59	3,24	1,00	-2,24	+	-	35	5,58	-4,02	-9,60	-	-
8	-15,59	-17,67	-2,08	-	-	42	0,07	-2,62	-2,69	-	-
11	13,22	-4,38	-17,59	-	-	43	-1,76	-2,48	-0,72	-	-
18	3,00	-0,93	-3,94	-	-	45	1,90	-2,88	-4,78	-	-
21	4,76	-3,35	-8,10	-	-	46	7,36	-3,52	-10,88	-	-
22	1,73	-0,26	-1,99	-	-	47	7,31	-1,43	-8,74	-	-
24	-0,50	-2,27	-1,76	-	-	48	0,66	-0,89	-1,55	-	-
25	-0,24	-2,64	-2,40	-	-	50	-0,54	-1,29	-0,75	-	-
26	0,69	-5,51	-6,20	-	-	52	3,55	-1,36	-4,91	-	-
31	8,36	-13,66	-22,02	-	-	54	2,98	-0,91	-3,89	-	-
44	25,76	-1,12	-26,88	-	-	57	0,00	-7,85	-7,85	-	-
46	16,95	-2,24	-19,19	-	-	59	0,21	-0,05	-0,26	-	-
50	-0,19	-0,57	-0,38	-	-	60	3,65	-1,76	-5,41	-	-

Source: Personal elaboration

4.4.1 Turnover's trends

Figure 15: Turnover trends



Source: Personal elaboration

Starting from turnover, the effect of the investments is almost equally split between a positive and a negative impact: in 33 cases (55%) the new owners were able to improve the growth of sales in T+ compared to T-, while in the remaining 27 cases (45%) the variable's performance deteriorated after the buyout. More in particular, in such cases the "discontinuity effect" of the private equity activity was observed 6 times: for these firms, the new investors were able to turn a negative sales' trend into a positive one. In other 6 cases instead, the private equity funds were able to improve a declining trend but without turning it into a positive one. In the remaining 21 cases, private equity houses improved an already growing trend.

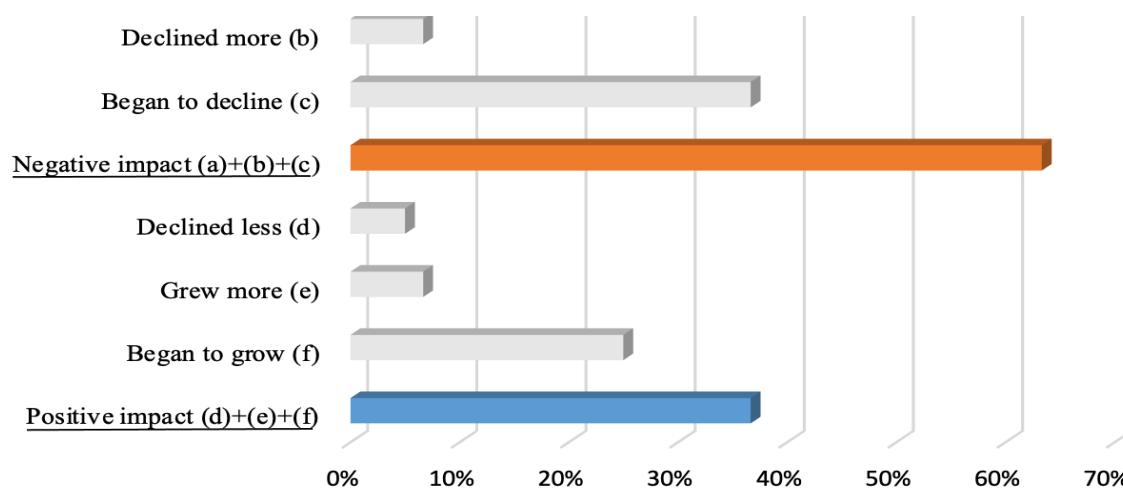
Considering the remaining 27 investments, the "discontinuity effect" was observed in 8 cases, where a positive trend in T- was turned into a negative one in T+. In 4 cases, the private equity activity worsened an already declining trend, while, in the remaining 15 investments family firms were still growing after the change in ownership but at a lower rate.

In sum, private equity investors were able to achieve a better trend in sales in the majority of the investments analysed. Also, in 6 cases they turned a declining trend into a positive one whereas in 8 cases they turned a positive trend into a negative one. In the remaining investments the change in ownership either slowed down an already positive trend or

worsened an already declining one. A graphical representation of such results is provided by Figure 15 above.

4.4.2 EBITDA Margin's trends

Figure 16: EBITDA margin trends



Source: Personal elaboration

Moving to the analysis of the EBITDA margin, in 22 cases (37%) the private equity investors were able to achieve a better trend in the level of efficiency in T+ as compared to T-. Whereas, in the remaining 38 cases (63%) the same trend declined in the years post-deal.

More in depth, considering the first 22 cases, in 15 investments the new owners successfully transformed a declining EBITDA margin trend into a positive one, while in the remaining 7 cases they improved an already positive trend.

As for what concerns the 38 circumstances in which the private equity funds had a negative impact on the trend of the margin, in 12 cases such trend was positive also after the investment but showed a weaker growth as compared to the years preceding it. In the other 26 cases, the trend was always negative after the investments: in 23 occasions the new owners turned a positive trend into a negative one, while in the other 3 cases they aggravated an already declining trend.

In sum, in most cases the private equity intervention did not have a positive impact on the efficiency trends of the target family firms. Plus, also for this variable many cases showed a “discontinuity effect” of the change in ownership: in 38 cases (63%) the trend in T- was

the opposite of that in T+. Again, a graphical representation of such results is provided by Figure 16 above.

4.4.3 Discussion

The analysis of the trends let us gather three important results. In the first place, it confirms that the majority of family firms' buyouts had a positive impact on turnover. Second, it provides additional evidence on the deterioration of the level of efficiency in T+. Indeed, in more than 60% of the firms analysed the EBITDA margin showed a worse performance in T- with respect to T+. Last, it emphasise the "discontinuity effect" of private equity investments already noticed by Buttignon et al. (2005). In this sense, turnover showed an opposite trend (changing both from negative to positive and vice versa) in 48% of the investments, while the same happened in 62% of the cases if we consider the EBITDA margin.

In addition to what has been just mentioned, the work presented in this section also lied down the ground for the group analysis made in the remaining part of the chapter, which constitutes a precious element for understanding what distinguishes successful investments from failures.

4.5 Group's identification

In order to identify some features in the variables analysed in the most successful investments and in the failures, family firms were aggregated into different groups according to their trends in sales and EBITDA margins. Table 13 and Figure # below show the 4 different groups that emerged, while in the following sections an explanation of their characteristics is provided.

4.5.1 Group 1 - Positive impact

In Group 1 (from company number 2 to company number 56 of Table 13, or second quadrant of Figure 17), all family firms that showed an improvement both in the turnover trend and in the EBITDA margin trend were aggregated. These 15 cases (25% of the total) could be considered as successful investments since the target firms involved were able to increase their competitive strength after the deal as well as their operating efficiency.

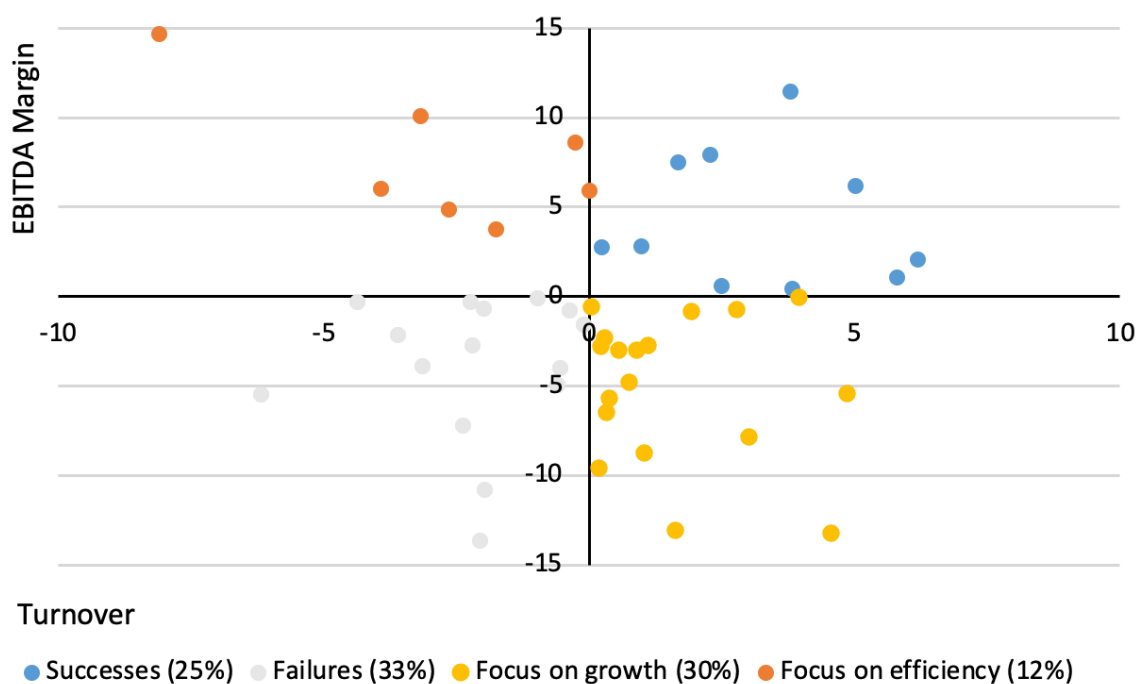
4.5.2 Group 2 - Negative Impact

Group 2 (from company 7 to company 59 of Table 13, or fourth quadrant of Figure 17) instead aggregates all the company that were negatively impacted by the private equity activity. The 20 family businesses in this group (33% of the total sample) in T+ were progressively losing their competitive advantage in the market as well as their capacity to operate efficiently, as the declining trends both in turnover and in EBITDA margin indicate.

4.5.3 Group 3 - Ambiguous impact

In Group 3 (from company 1 to company 58 of Table 13, or first and third quadrant of Figure 17), the impact of the new ownership in the 25 family firms (42% of the total) was not clear. On the one hand, for company 1 to 60 the investments improved the trends in turnover while reducing that of EBIDTA margin. On the other hand, for company 1 to 58, the investments positively affected the trends in EBITDA margin while reducing those in turnover.

Figure 17: Targets groups



Source: Personal elaboration

Table 13: Targets groups

Turover						EBITDA Margin					
Nr.	T-	T+	Delta			Nr.	T-	T+	Delta		
2	6,06	16,11	10,05	+	+	2	-4,64	0,17	4,81	+	+
5	-0,11	6,07	6,18	+	+	5	-0,40	1,69	2,09	+	+
6	4,78	16,63	11,85	+	+	6	0,43	0,58	0,15	+	+
10	4,43	6,91	2,48	+	+	10	3,25	3,88	0,63	+	+
15	-18,22	3,05	21,27	+	+	15	-4,60	-2,74	1,87	-	+
23	0,81	1,78	0,96	+	+	23	-1,35	1,47	2,82	+	+
27	-1,50	0,16	1,66	+	+	27	-4,66	2,89	7,55	+	+
29	2,35	7,36	5,01	+	+	29	-0,63	5,60	6,23	+	+
30	0,78	1,27	0,50	+	+	30	-0,96	19,56	20,52	+	+
37	-3,48	2,31	5,79	+	+	37	-0,93	0,17	1,10	+	+
39	3,56	22,81	19,24	+	+	39	-0,30	0,36	0,65	+	+
41	-4,83	-1,05	3,78	-	+	41	-10,52	0,96	11,48	+	+
53	-2,37	-0,10	2,27	-	+	53	-8,87	-0,94	7,93	-	+
55	0,48	0,70	0,22	+	+	55	-6,92	-4,12	2,81	-	+
56	5,11	8,93	3,82	+	+	56	0,31	0,78	0,47	+	+
7	1,97	1,22	-0,75	+	-	7	11,45	-31,29	-42,74	-	-
8	-15,59	-17,67	-2,08	-	-	8	1,07	-12,56	-13,63	-	-
11	13,22	-4,38	-17,59	-	-	11	10,98	-6,62	-17,60	-	-
20	6,23	4,22	-2,01	+	-	20	1,69	1,06	-0,63	+	-
22	1,73	-0,26	-1,99	-	-	22	6,18	-4,62	-10,80	-	-
25	-0,24	-2,64	-2,40	-	-	25	2,80	-4,41	-7,21	-	-
26	0,69	-5,51	-6,20	-	-	26	3,16	-2,31	-5,47	-	-
31	8,36	-13,66	-22,02	-	-	31	0,12	-0,76	-0,88	-	-
32	6,97	2,59	-4,39	+	-	32	1,06	0,77	-0,30	+	-
34	3,21	2,22	-0,99	+	-	34	-0,79	-0,86	-0,07	-	-
36	4,18	0,57	-3,62	+	-	36	4,34	2,22	-2,12	+	-
40	1,27	0,71	-0,56	+	-	40	8,52	4,57	-3,96	+	-
42	5,39	3,17	-2,22	+	-	42	0,07	-2,62	-2,69	-	-
48	0,21	0,10	-0,11	+	-	48	0,66	-0,89	-1,55	-	-
50	-0,19	-0,57	-0,38	-	-	50	-0,54	-1,29	-0,75	-	-
52	0,65	0,04	-0,61	+	-	52	3,55	-1,36	-4,91	-	-
54	5,02	1,87	-3,15	+	-	54	2,98	-0,91	-3,89	-	-
59	3,24	1,00	-2,24	+	-	59	0,21	-0,05	-0,26	-	-
1	0,80	1,02	0,21	+	+	1	3,46	0,68	-2,78	+	-
3	-1,17	0,75	1,93	+	+	3	1,11	0,30	-0,81	+	-
12	-8,51	-3,95	4,55	-	+	12	0,01	-13,22	-13,23	-	-
13	0,13	1,02	0,89	+	+	13	4,09	1,08	-3,02	+	-
14	0,97	1,29	0,32	+	+	14	5,31	-1,19	-6,50	-	-
16	0,21	1,83	1,62	+	+	16	8,74	-4,34	-13,08	-	-
17	-0,36	0,75	1,11	+	+	17	1,03	-1,72	-2,75	-	-
19	1,78	1,82	0,04	+	+	19	0,02	-0,55	-0,57	-	-
28	-0,54	-0,25	0,29	-	+	28	3,09	0,78	-2,31	+	-
33	0,59	4,53	3,94	+	+	33	0,57	0,53	-0,04	+	-
35	-0,32	-0,14	0,18	-	+	35	5,58	-4,02	-9,60	-	-
43	1,06	3,84	2,78	+	+	43	-1,76	-2,48	-0,72	-	-
45	2,57	3,32	0,76	+	+	45	1,90	-2,88	-4,78	-	-
47	7,85	8,88	1,03	+	+	47	7,31	-1,43	-8,74	-	-
49	1,13	1,69	0,56	+	+	49	4,91	1,90	-3,01	+	-
51	2,23	2,60	0,38	+	+	51	6,21	0,52	-5,69	+	-
57	-3,27	-0,26	3,00	-	+	57	0,00	-7,85	-7,85	-	-
60	6,63	11,48	4,85	+	+	60	3,65	-1,76	-5,41	-	-
4	4,72	1,53	-3,19	+	-	4	-9,52	0,62	10,14	+	+
9	0,60	0,34	-0,26	+	-	9	-8,56	0,06	8,63	+	+
18	3,00	-0,93	-3,94	-	-	18	-2,94	3,14	6,08	+	+
21	4,76	-3,35	-8,10	-	-	21	3,85	18,57	14,72	+	+
24	-0,50	-2,27	-1,76	-	-	24	-0,92	2,86	3,78	+	+
38	6,78	4,12	-2,66	+	-	38	-3,42	1,45	4,87	+	+
58	0,52	0,50	-0,02	+	-	58	-0,16	5,78	5,94	+	+

Source: Personal elaboration

4.5.4 Discussion

From the 3 groups identified above we can conclude that in the majority of the cases (67%), private equity funds' investments had a positive impact on target family firms at least under one of the aspects considered (competitive strength and/or operating efficiency).

On the other hand, the remaining 33% of the deals did not allow the family businesses to improve their main financial indicator under the new ownership structure.

In order to provide a possible explanation to the ambiguous results observed for Group 3, it must be noted that a temporary decline in profitability might be accepted in the view of acquiring a larger market share and boost sales. Also, a temporary decline in sales could be tolerated in the short run for the sake of profitability (Buttignon et al., 2005). Hence, for the family businesses in this group it could be reasonable to assume that the strategies implemented by the new investors are still in their central stage and, consequently, a clearer picture of their effect would take more than two to three years to explicate.

Moreover, if we consider the mean values of turnover and EBITDA margin for the first two groups of firms in the years preceding the deal (Table 14 below), together with the relative trends, some interesting evidence emerge.

Table 14: Group 1-2 means and trends

	Group 1		Group 2		All firms	
	Mean T-	Trend T-	Mean T-	Trend T-	Mean T-	Trend T-
Turnover (€ m.)	42,49	-0,14	40,55	4,45	36,08	1,98
EBITDA (€ m.)	4,04	0,84	5,96	-0,25	4,35	0,60
EBITDA Margin	11,89%	-2,72	14,08%	3,34	14,20%	0,99

Source: Personal elaboration

In the first place, Group 1 (the one including the most successful investments), was the group with the worst average performance in terms of turnover trend in T-. Plus, it was the group that showed (on average) the lowest average EBITDA margin, both in comparison with the other two groups and the entire sample. Also, the trend in this variable was strongly negative.

Second, Group 2 (the one related to unsuccessful investments) in the years prior the change in ownership was conducting an opposite and therefore better performance with respect to that of Group 1. Indeed, it showed (on average) a growing turnover and a

strongly growing EBITDA margin trends. Plus, this last indicator was also at higher levels as compared to the sample in Group 1.

Following, other aspects were taken into consideration in order to provide a possible explanation for the opposite performance observed in the two groups. First, we looked at the sectors in which portfolio companies operate as well as at their longevity (since, as showed in Chapter 2, founder-controlled and descendants-controlled family business might present different reaction to private equity investments). Under a sectorial perspective, there was not a clear demarcation between companies of Group 1 with respect to those in Group 2. On the contrary, some sectors frequently appeared both within the companies positively affected by the investments as well as in those negatively affected. Different results were found with regard to portfolio companies' age: on average, companies belonging to Group 1 are 14 years younger than those in Group 2, suggesting that private equity strategies are more difficult to implement in relatively older companies, where the family culture might play a bigger role.

Second, we observed some variables related to the private equity houses involved in the deals, in particular their country of origin (as for possible cultural gaps), their years of experience in the industry, and the equity stake acquired (as a proxy of the level of integration between the family and the private equity sponsors after the buyout). With regard to the country of origin, again no interesting conclusions could be drawn: private equity houses in both groups were almost equally split between Italian and international firms. However, more appealing results appeared by looking at the years of experience. In detail, family businesses in Group 1 were mainly acquired by private equity firms established in the 1990s, which showed, on average, an experience of more than 28 years in the field. On the other side, family businesses in Group 2 were acquired by relatively younger private equity houses: in this case most of them were established in the 2000s or even more recently and, on average, showed less than 18 years of experience. This evidence therefore suggests a positive correlation between private equity firms' experience and targets performance. Concerning the average equity stake acquired instead, the two groups did not present any significant difference.

Table 15 summarises the findings exposed above:

Table 15: Group 1-2 variables

Group	Portfolio companies		Private equity house		
	Nr.	Average age	Industry	Average years of experience	Nationality
1	27	Various	28	Various - mostly Italian	79%
2	41	Various	17	Various - mostly Italian	78%

Source: Personal elaboration

4.6 Conclusions

The goal of this dissertation was to understand the “reciprocal sympathy” between private equity and family firms as well as to investigate the performance implications of private equity buyouts on this particular type of businesses, especially with regard to growth, efficiency, capital structure and profitability. We started by defining the characteristics and the modus-operandi of the two actors, highlighting the points of convergency and those of divergency. In this sense, we stressed what resources and what capabilities the private equity industry has to offer to the world of family businesses in order to attract them and help them overcome its main challenges. More specifically, we identified the financial resources, the managerial competencies, and the accumulated experience in facing transgenerational issues as the most appealing private equity’s assets to family firms. On the flip side, we showed how the willingness of the business-owning families to retain control over the firms - mainly linked to the SEW loss aversion and the desire to keep stewardship roles - might prevent a priori the conclusion of potentially beneficial deals. To spread some light on what actually is the “reciprocal feeling” between the two parties, we therefore performed an analysis of the Italian private equity market in the years from 2014 to 2018: the results highlighted a strong connection between private equity and family firms, with the number of transactions persistently growing during the five years observed. In detail, the number of deals originated from family firms went up to 139 (79% of the total) in 2018 from 42 (47% of the total) in 2014. Also, among these deals, buyouts were by far the predominant type of investments. Linking these findings to the literature review, they might suggest that family firms are starting to progressively become more flexible with regard to strategic and financing decision, even at the expense of losing full

control over the company. Most likely, the fact that family businesses often lack the necessary financial resources needed to remain competitive, together with their generally lower levels of professionalization (combined with the ever-growing complexities of many industries), and the lack of experience in transgenerational passages (which are by definition a once in a lifetime event), is what is driving these results.

The analysis of the Italian private equity market was also our starting point for addressing the main goal of the thesis, which consisted in adding evidence on what impact family firms' buyouts have on targets' financial performance. In these terms, from the data collected we identified a sample of 60 deals concerning family firms' buyouts carried out in the years going from 2014 to 2016. Following the existing literature (Buttignon et al., 2005; Opler, 1992), the 60 portfolio companies were studied focusing mostly on selected accounting data: these were analysed over a 5-year period (pre and post-deal) in order to assess the evolution of the financial performance. However, also non-accounting variables were taken into account, both related to the targets and the private equity firms.

In the first place, we observed the effects on growth through the change in turnover, value of fixed assets and number of employees. The statistical analysis performed showed a significant increase in the level of sales in the years following the buyouts as compared to the ones preceding it. The same results were observed both for the value of fixed assets and for the number of employees. However, noteworthy is that a great part in the change in value of fixed assets is most likely associated to buyouts accounting rules rather than on organic or external growth, as previously observed also by Buttignon et al. (2005). As a matter of fact, the implications of such accounting rules, especially through the increase in amortization and depreciation costs, disallowed for any conclusion regarding other variables, in particular ROS, ROA, ROE, and Net Income/Turnover. In addition, other measures of operating efficiency such as EBITDA margin and operating net working capital did not show any statistically significant result. As a consequence, we were not able to draw any relevant conclusion regarding the impact on efficiency and on profitability at this level of analysis if not for the employees' productivity levels (i.e. euros of sales gained per euro of labour cost spent): these dropped in the two years followed the buyouts, probably due to higher wages corresponded to new managers and directors. For what concerns the capital structure instead, the levels of financial debt greatly increased in the years post-deals while the taxes paid decreased, as it normally happens in buyouts. It is

important to note, however, that part of the reduction in taxes might not be linked to the higher interests tax shield, but rather to the higher operating expenses following the assets revaluation.

Last, following the methodology employed by Buttignon et al. (2005), we clustered target companies into groups according to their trends in sales and EBITDA margin. In the first place, this step let us make up for the inconclusive statistical analysis regarding the impact of private equity sponsors on targets' efficiency; second, it allowed us to further investigate the "discontinuity effect" on performance of family firms' buyouts, as firstly observed by Buttignon et al. (2005); third, it built the basis to investigate some of the qualitative factors that might distinguish successful investments from failures. In detail, the trend analysis showed that in most cases (63% of the total) the investments were linked to a negative impact on the EBITDA margin - which either grew less than before, declined more than before or started to decline -, thus suggesting that family firms' buyouts, on average, are not linked to efficiency improvements. On the contrary, private equity sponsors seem to care more about sales improvement, as observed in 55% of the cases in the sample and already showed in the statistical analysis. Following, the work on trends confirmed a strong "discontinuity effect" on targets' performance. Indeed, in 62% of the cases the EBITDA margin trends either turned positive from negative or vice versa; while, in 48% of the cases the same happened for the turnover trends. Last, by identifying the successful cases and the failures (i.e. by separating investments that positively impacted both sales and EBITDA margin from investments that negatively impacted the same variables) we were able to look at some of the characteristics that differentiated the two groups. In particular, we noticed the targets in the successful group were the one with the worst performance in the two years prior the deal, while the opposite holds for the failures. Similar results were presented also in Buttignon et al. (2005) and Wulf et al. (2010). In particular, Buttignon et al. (2005) related such findings to the possible presence of information asymmetries in the negotiation phase, which led to an overpay of the targets. In our case, we checked other variables that might have affected the two different performances, namely target firms' industry and longevity, private equity firms' country of origin, years of experience and amount of equity stake acquired. It eventually appeared that the only two additional differences between the two groups are related to the experience of the private equity houses and the longevity of portfolio firms. On average, private

equity firms that concluded successful investments could boast 10 years of additional experience in the field as compared to the ones involved in the failures. Plus, companies in the successful group are, on average, 14 years younger than those in the group of failures. Therefore, we add to the hypothesis of Buttignon et al. (2005) by suggesting that more experienced private equity houses are more capable of recognizing the right type of family firms in which to invest and of implementing the right value creation strategies. Also, adding to the findings of Croce and Martí (2014), we argue that the implementation of private equity strategies in young family firms might be more efficient and produce better results as compared to investment in older ones. Last, through a SEW lens, and contrary to Buttignon et al. (2005), we hypothesize that owning-families of underperforming firms, in order to safeguard the future of the company, are more willing to cooperate with private equity sponsors both during the negotiation and the years following the deal, hence allowing for reduced information asymmetries, increased synergies and eventually for a greater, positive impact on performance. Indeed, an appropriate exchange of information between the family and the private equity investors often seems to increase the likelihood of a satisfying transaction outcome in the long-term (Howorth et al., 2004). Summarising, despite the evident contrasting logics that characterise the two economic actors, data on transactions show an increasing “reciprocal sympathy” between private equity and family firms: this is mainly link to the financial and non-financial resources that business-owning families can access through such deals and to the greater room for improvements and financial returns that private equity funds see in family businesses. Plus, our analysis on family firms’ buyouts links these investments to a general increase in targets’ sales as well as to increased levels of employment, increased financial debt, increased value of fixed assets, lower taxation, lower employees’ productivity and a general deterioration of the EBITDA margin. Also, the most successful investments seem to occur when well experienced private equity houses target young family businesses with poor pre-deal performance in growth and efficiency trends. Last, family firms’ buyouts continue to show a strong “discontinuity effect” on sales and EBITDA margin, meaning that they frequently turn a negative trend in one of the two variables into a positive one or vice versa.

4.7 Research limits and future studies

This study provides some additional evidence on the effects that private equity investments have on family firms. However, mainly because of accounting rules related to buy-outs transaction, many of the financial statements' lines and ratios examined did not lead to any relevant conclusion. Thus, in order to improve the analysis, it would be interesting to adjust financial data for the effects that follow any assets revaluation. In this way, more meaningful insights could be observed with regard to operating performance and profitability. Moreover, to add robustness to the statistical analysis and to further abstract the results in terms of industry trends' influence, the comparison could have been performed between private equity targets and non-private equity-backed peers (rather than only between years pre and post-deals), as in the case of Battistin et al. (2017), Guo et al., (2011), or Wilson et al. (2012). Nonetheless, even with this approach, the work would have suffered from some biases due to the fact that private equity investors can observe more variables (and thus have an informational advantage) when choosing targets as compared to any researcher when choosing the matching peers.

Following, of particular interest for future researches would be to add evidence on the pre-deal characteristics of the best responding family firms. In this sense, if the hypothesis made in our conclusions - regarding family firms' longevity, pre-deal performance, and private equity house' years of experience - were backed by further studies, it would be worthy to understand under a more qualitative lens how these variables positively impact the value creation process, both in the negotiation and in the post-deal phase.

Concluding, in order to extend the existing literature (see Vivani et al., 2008) worthy of more attention is also the long-term impact of such investments, especially in relation to the chosen exit strategy (e.g. family buyback, secondary buyout, IPO, etc.).

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