MINORITY SHAREHOLDERS AND EMPIRICAL EVIDENCES ON VOLUNTARY DELISTING PHENOMENON.

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“There’s a hunger still unsatisfied.”

Pink Floyd - High Hopes
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**Introduction**

Delisting is a phenomenon which is carving out a significant role in literature during the last decades. The reason why experts and researchers are drawn to this phenomenon is mainly due to the will to find a general framework to understand why firms remove themselves from exchanges. There are two types of delisting: voluntary and involuntary. In this paper, I will focus the attention on the first, since it is more interesting to study firms’ behavior prior to the conscious exit from capital markets, than going private for not having met all the minimum requirements to continue to be publicly traded.

However, in order to have a clear and deep understanding of the phenomenon, the first chapter will present a general overview of the delisting procedure, highlighting all the typologies, both voluntary and involuntary, together with the going-dark. For each of these, there will be analyzed the characteristics showed by the existing literature, both regarding the procedures and the drivers which lead a company to opt for a typology rather than another one.

In the second section, the focus will shift on the role of minority shareholders in voluntary delisting transactions. The purpose of this work, in fact, is not represented by the will to deliver a report from the perspective of an external observer, but is to give individual investors and minorities helpful tools and greater knowledge upon rights and duties when a public company wants to remove from capital markets. In fact, the focus on minorities is not offered only throughout the second section, but, as it will be highlighted later, the empirical study presents a step which would be particularly interesting for minority shareholders. However, the analysis, in the second chapter, will cover both EU and US legislation, in order to compare and contrast these regulatory
frameworks, which offer minorities different powers and levels of protection. There will be also some references to UK legislation, which gives further discussion points to rise. Particular attention will be given to takeover regulations, analyzing their cornerstones, together with squeeze-out and sell-out rights.

To develop the empirical study, which is the core of the third and last section, I analyze separately two different markets, in order to better understand the dynamics that affect the phenomenon. Major attention will be paid to the Italian market: this presents an interesting framework to be analyzed because it is an environment constituted by significant family businesses’ tradition and controlling shareholders’ prominence in the ownership base. The Italian sample will be compared with the S&P 500 Index sample, composed by delisted firms which constituted the homonymous index until the day before the removal. US capital markets have a different ownership structure with respect to the Italian environment, given its higher floating, as well as the presence of a widespread shareholder base. I will use data from 2006 to 2010. The samples are constituted by firms traded on the FTSE Italia All-Share regarding the Italian pattern and on the S&P 500 Index for the homonymous sample. The total number of firms is respectively equal to 50 and 71. The study will be developed looking at fundamentals and financial indicators which have been considered as relevant given the existing literature on the argument. Shareholders’ returns are calculated in terms of Cumulative Abnormal Return, or CAR, around the delisting public announcement, using a [-3; +3] daily window.

Testing the differences among delisted and survived companies in Italy through a Logit model, I found that firms which have been voluntary removed are more likely to be smaller in terms of size, undervalued and to underperform with respect to those which
continued to be publicly traded. These findings are in line with the existing literature upon the argument. Moreover, studying the relationship between equity stakes in controlling shareholders’ hands and CARs around the delisting public announcement, I verified the hypothesis of a negative and significant coefficient.

Comparing, instead, the two environments, I found larger returns in terms of CAARs with higher concentration on the day of delisting public announcement in the US market, rather than in the Italian one. Furthermore, larger CARs are gained by shareholders who invest in companies involved in PTP transaction than in M&A agreements with listed companies in Italy, while this difference cannot be highlighted in the US sample. Likewise, studying the differences among these kinds of transactions through another Logit model, firms taken from the S&P 500 Index showed no significant variables to highlight, while, on the FTSE Italia All-Share, going-private companies have more likelihood to be smaller and have higher Dividend Yields.

To sum up, the work project will follow this specific structure. Section 1 allows the reader to have a general overview on the phenomenon. In Section 2, the attention will be focused on minority shareholders in these kinds of transactions. Section 3 will present the empirical study, defining the sample, research methodologies and hypothesis, and, then, discussing the findings. Conclusions with final remarks will be reported in the homonymous section, which constitutes the last part of the work.
1. Overview on the Delisting Phenomenon

In order to have a clear understanding of delisting, it is important to analyze which are the typologies and the characteristics a firm is more likely to show, according to the existing literature, for each one of those. For this reason, the chapter has been structured in two parts. The first one will cover voluntary and involuntary delisting, underlining the techniques to be knowingly removed from capital markets and the most important requirements to monitor in case of involuntary removal. A separate paragraph will be addressed to the going-dark phenomenon, which can be referred to voluntary delisting, but it has different core characteristics, which have driven the decision not to analyze it in the same section.

The second part of the chapter will be constituted, following the same structure as the one used regarding typologies, by a deep analysis of the drivers and the characteristics which let a firm opt for one kind of delisting instead of another one. All the paragraphs will cover economic, financial, governance and ownership perspectives, trying to highlight, through the study of the existing literature, the most important features shown by delisted firms historically.

1.1 Delisting Typologies

1.1.1 Voluntary Delisting

The expression Voluntary Delisting is used in Corporate Finance whenever a firm is knowingly removed from an exchange listing, though it still has all the legislative requirements to be still traded on the market. So, in order to be successful, it is necessary the agreement of the general meeting of shareholders, and the board of
directors. Regarding majorities and thresholds about the procedure, each normative code has established its own measures concerning each delisting typology. However, EU Member States, since the beginning of this last century, have been experiencing a minimum harmonization thanks to the Takeover Directive by the European Union, which will be discussed in details throughout the second chapter. Notwithstanding the research for a full coordination by the legislator, there are still clear differences among Member States, due to difficulties and delays in implementation, which are leading to the undesirable result of not full alignment in the procedures\(^1\). The implication is reflected into the confusion and the consequent harm of individual, so, minority shareholders, which are facing different levels of protection comparing all the states in question. The argument will be discussed more in details in the next section, where it will be focused the attention on the position of minority shareholders in delisting procedures.

In order to have a general overview of the voluntary delisting phenomenon, it is essential to underline the different typologies which can lead a firm to opt for this decision. A paper by De Angelo, De Angelo and Rice\(^2\) developed a solid general framework to have a clear understanding of all the possible ways to experience voluntary delisting. A company can be, in fact, delisted through different techniques which can be referred to the M&A environment. Furthermore, it is not likely, nowadays, to have a delisting which is conducted by an individual person who buys all the target firm’s shares outstanding in the capital markets in order to let the company go private.

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Before starting analyzing all the different typologies to remove a firm from the exchange listing, an acknowledgement regarding the meaning of voluntary delisting has to be done, since it is common to think about the phenomenon as a pure going-private transaction. Delisting, instead, is seen as the removal and the trading termination of the issuer, which could either become a private company, definitely exiting capital markets, or continue to be traded, but essentially not as the same firm as before. To better understand, the first way to be delisted from financial regulated markets is the incorporation: a firm can be incorporated into another firm’s balance sheet after an acquisition. The operation can be done by a private or a public company: here stands the difference which has been highlighted before. Whenever the acquirer is a private company, the target would be involved into a public-to-private transaction, which would not allow the firm to be traded on capital markets anymore; on the other hand, in the case the acquirer is a public company, which is regularly traded on the exchange listing, the target firm would theoretically does not exist anymore because it would be incorporated into another company as before, but their assets would increase the value of the acquirer’s stocks. In this last case, it may happen, in fact, that the shareholders of the acquiring company would be repaid with acquirer’s stocks, through a so called exchange ratio, and become owners of a different company. The difference here stands in the nature of the offer: while, in public-to-private transactions, the acquirer announces a tender offer to purchase the totality of the shares, when the bidder is a public firm there is the alternative of an exchange offer, which is done through an exchange ratio. This tool allows exchanging a share of the target firm with a predefined number of shares of the acquirer\(^3\).

There are, of course, several and relevant distinctions in target firms which go private through an M&A transaction and firms which are acquired by a listed company concerning strategic, financial and governance motivations. These characteristics will be further discussed, with the aid and through the analysis of the existing literature, later in this chapter.

A firm cannot be subjected to voluntary delisting procedures only being incorporated into another company. Another technique is, in fact, the creation of a shell corporation. This is more likely to be used in pure going-private transactions, where the target firm is combined with another company, which has been constituted expressly for taking it out of the market. In this case, through a tender offer, the shell corporation’s management becomes the only owner of the whole firm, which is composed also by the going-private entity⁴. It is also possible to face this technique in case of a merger of equals between two listed firms. Here, in fact, both the firm would terminate to be traded in the market under the prior denomination and they would merge together constituting another public firm, which will be still traded on capital markets. Again, as it has already underlined above, in this kind of transaction a tender offer is not the only alternative to remunerate target’s shareholder, but exchange offers can be also considered.

The last tool to focus on is the one which has characterized the first M&A wave in 1980s and it has been the first technique for voluntary delistings during that period⁵: the Leveraged Buy-Out. An LBO can be defined as a transaction where a firm is acquired using debt to finance a relevant part of the purchase price of the deal, cashing out the

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shareholders of the firm\textsuperscript{6}. Basically, it is a going-private transaction and it is mainly led by Private Equity firms, which are monitoring and financing the remaining part of the purchasing price through cash or equity contribution. Private Equities are a relatively new branch of firms in the industry\textsuperscript{7}, whose activity is rapidly growing since the beginning of this century. Thanks to a research by the World Economic Forum\textsuperscript{8}, in fact, it is possible to notice that the total value of firms acquired through LBOs between 1970 and 2007 accounts for $3.6 trillion, where $2.7 has been capitalized only in the first seven years of the twenty-first century. Whenever, instead, the buyer of the firm is not a Private Equity firm or another company which uses debt to finance the purchase, it may happen that the buyer is constituted by the management of the firm. In this case the type of transaction is called Management Buy-Out\textsuperscript{9}.

1.1.2 Going-Dark

Going-dark transactions can be defined as those where a firm deregisters itself from the national securities commission and from public listings, but continues to be traded on the Over-The-Counter markets\textsuperscript{10}. As it is easy to observe, the mechanism is very close to public-to-private transactions, but, once a company delists from the exchange, it is still traded on another market, which has less strict requirements and regulations. This particular procedure, which can be related to the world of the voluntary delisting phenomenon, is common especially in US, where the OTC markets are more developed than in other countries around the world. The OTC markets have different

characteristics from the common stock exchanges, because, despite the lower and less strict regulations they require, the players, buyers and sellers, act as market makers, since they quote the price at which they respectively want to buy or sell a particular share. There are no intermediaries between parts: that is the reason why they are also called interdealer markets.\(^{11}\)

To pursue a going-dark transaction in US, a company has to comply with some requirements which are referred to the 1964 amendment of Section 12(g) in the Security Exchange Act of 1934. Since companies which have total assets of at least $10 million have to continue to be registered in the SEC filings if the shareholder base is composed by at least 300 units, a firm which wants to go dark must have its own values regarding total assets and number of shareholders below these thresholds. The procedure to go dark is different from a public-to-private transaction because there is no need for insiders or controlling shareholders to make, for instance, a tender offer to buy back all the shares. It is important to underline that it is not required a full shareholders’ vote to go dark, because, whether a firm has less than 300 shareholders, the approval for deregistering from the SEC can be done just by the board of directors. To reach the number of shareholders’ threshold, different ways can be used, such as reverse stock split, in order to, for instance, halve the number of shares outstanding, or a limited tender offer, to let minority shareholders exit the company and withdraw the investment. As last remark on this particular delisting procedure, empirical evidences noticed a significant decrease in share price around the going-dark public announcement.

\(^{11}\) Dodd, 2008, Markets: Exchange or Over-the-Counter, IMF Finance & Development Magazine.
date\textsuperscript{12}. This supports the thesis that the shareholder base and the market does not sympathize for firms which are hiding themselves on OTCs.

1.1.3 Involuntary Delisting

Being involuntary delisted from trading exchanges means not respecting the criteria and requirements to be on public markets. Therefore, it is not a choice made by any of the target firm’s insiders, board of directors or controlling shareholders, but it is a matter of facts that the company does not comply with trading regulations over a specified time horizon. Each exchange has different requirements regarding performance and trading issues, as well as the period of time and trading to wait until the firm caught in defect is delisted from the market. Since in the third part of the work empirical studies on Italian and US markets will be presented, in order to give a more precise insight on the most relevant factors the exchanges consider when they are suspending and delisting equities, an exhaustive analysis of the Borsa Italiana and NYSE Euronext regulations is reported in this paragraph.

Starting with the Italian stock market, which is part of the London Stock Exchange Group since 2007, it is possible to notice that, before being delisted by the exchange, an issuer has to be suspended earlier. The suspension, and the subsequent revocation, can be made by Borsa Italiana whenever a stock does not guarantee the correct trading on the market, undermines shareholders’ protection, is not exchanged at all or whenever, due to exceptional happenings, it is not possible to maintain a regular and fair trading\textsuperscript{13}.

Going in details regarding the criteria about the firm Borsa Italiana takes more in


\textsuperscript{13} Borsa Italiana, 2014, Regolamento dei Mercati Organizzati e Gestiti da Borsa Italiana S.p.A.
consideration, crucial elements for delisting are the lack of disclosure and release of financial and compulsory data, the involvement of the company in bankruptcy or insolvency proceeding, issuer’s dissolution and negative opinion by the independent institutional advisor for two consecutive years. Furthermore, there are also requirements on the stock and its trading on the market. In fact, Borsa Italiana also considers a time horizon that lasts 18 months to eventually analyze trading volume, average stock price, volatility and ownership structure. The delisting procedure starts with the exchange notification to the issuer and it lasts 60 days from the notification. During this period of time, which has been reserved for the Italian exchange to decide upon the subject, the company under observation can ask for a meeting with Borsa Italiana’s delegates in order to clarify and justify its position. After 60 days, the decision has to be made and, whether the exchange opts for the delisting, there happens the immediate revocation of the issuer.

Following with the NYSE Euronext, generally speaking, the US capital market has similar characteristics to look at in order to find out delisting candidates. However, deepening the analysis, it is possible to notice a more quantitative approach than the Italian one. This radical difference may be explained by the different nature and environment of the two exchanges, since the Italian capital market is less active, given its financial markets’ physiognomy, and not as developed as the US one, while the NYSE accounts for more than $21 thousand billion and is the largest stock exchange in the world\textsuperscript{14}. Therefore, in order to being continued listed on the NYSE, a company has to look, among others, at: financial conditions and operating results, since there are minimum requirements for shareholders’ equity and consecutive years of loss (they go

\textsuperscript{14} NYSE Euronext, 2014, NYSE MKT Company Guide.
from $2 million with 2 years of loss to $6 million with 5 years of loss); trading and listing standards regarding number of shareholders, which should not go below 400, and number of shares publicly traded, which should not be less than 1.1 million. The other important thing which marks the difference between the Italian and the NYSE listings is the procedure, since the latter is faster and more interactive. The process, in fact, can be divided in two parts. The first, which starts right after the notification, has the target company as principal actor, which has to provide the exchange a plan where the reasons of non-maintenance requirements and valid solutions are presented. The second, where the burden is, instead, on the NYSE, depends on the acceptance of the plan. If the document is refused by the exchange, then the staff will initiate the delisting promptly, otherwise, in case of approval, the staff will examine and control on quarterly basis the company’s ongoing performance, in order to verify the compliance with the plan.

1.2 Drivers which Lead to Delisting

1.2.1 The Choice between Staying Public and Going Private: Financial and Strategic Perspectives

In order to highlight which are the most important factors that affect the choice of preferring the private market instead of the ongoing trading on public listings, an analysis of the existing literature upon the argument will be presented in this section. Two Italian experts in this field, Geranio and Zanotti, developed one of the first paper in the literature which has focused its attention only on Continental European markets for empirical evidences on delisting phenomenon, instead of looking at the United
Kingdom or the United States\textsuperscript{15}. The first element that catches the attention and that is an evident signal of considering the going private option is target firm’s undervaluation. Undervaluation may be driven by different causes, mainly by lack of interest by the market with respect to the company, no matter its results, performance, future expectations and market trends. This lack of interest is reflected in share price, which underlines the difference in value perception between outsiders and insiders of the firm. For this reason, it is very likely that undervaluation is driven by information asymmetries among the different actors which are playing in the capital markets\textsuperscript{16}: insiders are more aware of target firm’s potential and actual performance, its investment opportunities and its future earnings growth, while, on the other hand, outsiders can rely just on public data or releases issued by the company, which are not presenting a correct snapshot of the real valuation. This gap may be also driven by managers’ incomplete capability to communicate to the market its value creation. Therefore, investors in capital markets may prefer to have other companies’ shares in their portfolios instead of these kinds of firms. As a result, the share price would be relatively low and there would be issues for managers in finding sources for new equity capital raising, in case of new investment opportunities. Undervaluation may lead to dejection in collecting new funds on public market, since the costs would be extremely higher compared to the private one. Thus, firms with these characteristics are more likely to opt for exiting


from listings, in order to exploit their potential which is not fairly incorporated in the share price\(^\text{17}\).

Due to amendments and introductions of new legislations for listed companies, such as the Sarbanes-Oxley Act in United States, the costs of staying listed are one of the most important causes which lead a company to abandon capital markets and go private. These kinds of costs are not only constituted by those fees to pay regularly to market management firms in order to stay listed. The majority of the costs are referred to those obligations any public firm has to meet in terms of data disclosure and publication. The last portion of the being listed costs is composed by the economic effort for building up and spreading the investor relations which are done to let the market and, mostly, institutional investors be informed on the ongoing performance of the firm. Even if these costs are considered when a company plans to enter capital markets through the IPO, changes in legislation and the rising of the cost bar for being listed have constituted a serious problem for public companies during the last decade. As Carney\(^\text{18}\) reported in a paper published few years after the SOX Act’s entry into force, “many of the smaller companies that went public in the late 1990s and foreign issuers that entered the US market may wish to rethink their decision”. Since 2003, which is the year after the SOX Act was emanated, in fact, it has been experienced a huge increase in going-private filings on the US market: 101 firms exited the market in 2003 and 114 in 2004, compared to 59 companies in 2002. The number of delisted firms has been increased by 71.19% just counting one year.


Listing costs do not represent just a financial component, but the removal from capital markets may also constitute a way to hide from competitors\textsuperscript{19}. As it will be more developed in the following paragraphs, especially the one about going-dark, one of the reasons a company decides to go private is to act without being monitored by competitors or the whole market in general. It is true, as it has just mentioned above, that listing requirements are expensive and time consuming, but, at the same time, in order to reach transparency and fairness targets, they extremely expose all the public firms to everybody has interests in a specific company, the so called stakeholders. For this reason, it may happen that, following a strategic rationale, a company exits the capital markets through the voluntary removal from listing to darken itself from the world market, so avoiding disclosing their financial data.

Another element to consider, which is very relevant in the choice between staying public or going private is the size of the firm, together with the portion of floating shares. If, in fact, a company on capital markets has a relatively low percentage of its shares free to float, then it would be more likely to think about exiting from them\textsuperscript{20}. A small floating transforms the liquidity advantage of staying public into an illiquidity issue, which would derive again lack of interest into the average investor on the market. Although on one side it is true that smaller firms tend to outperform the market, with respect to larger ones\textsuperscript{21}, at the same time it is very difficult to find relevant and reliable information about them. Furthermore, institutional investors may not consider small caps with low free floating due to the already above cited illiquidity issue: liquid shares’ investments are easier to withdraw without market impact. For these reasons, it may

\textsuperscript{19} McSherry, 2013, 70 Billion Reasons For A Public Company To Go Private, Forbes.
happen that institutional investors, such as pension funds, even if small caps shares are relatively cheaper with respect to larger ones, do not consider buying portions of these kinds of firms’ equity.

The capital structure of a company is one of the most important factors the management should be aware of when a company is listed on capital markets. Although in one of the most relevant papers of corporate finance by Modigliani and Miller\footnote{Modigliani, Miller, 1958, The Cost of Capital, Corporation Finance and The Theory of Investment, The American Economic Review.} the authors stated that in perfect capital markets, without any frictions, such as taxes, asymmetric information, bankruptcy and agency costs, capital structure does not affect the value of a firm, the real world is different and somehow debt levels influence the ongoing performance of a firm, even if it is not high in relative terms. As Jensen\footnote{Jensen, 1986, Agency Costs and Free Cash Flow, Corporate Finance and Take-overs, American Economics Review 76, 323-329.} argued, in fact, debt does not allow managers to take all the decisions they would, since the higher the debt levels are, the higher the interests to pay back to debt holders are. Leveraged capital structure is not affecting decisions just looking at the interests to pay, but sometimes the market, even if projects have large positive net present values, could look at debt issuing as the willingness to take higher risk, thus reacting negatively as the information comes out. This problem of investment undervaluation does not affect the value of a company if it is not quoted on capital markets, since there is not the same level of exposure to the public for what concerns information communication. Therefore, going private would result in the opportunity to raise debt without incurring in lowering the share price\footnote{Torabzadeh, Bertin, 1987, Leveraged Buyouts and Shareholder Returns, The Journal of Financial Research 10, 313-319.}. 
The last two elements to focus on are not as relevant as the above explained ones, but they can give an overall view on the economic and financial perspectives regarding the choice between staying public and going private. Being on capital markets means, for any company, creating a solid and pertinent dividend policy, in order to build up a strong image of the business and construct behind it a stable group of stockholders. Dividend policies offer a snapshot of the company for any investor who wants to be shareholder. In fact, companies with constant and stable dividend payout policies are defined as value and, typically, have a low price earnings ratio. On the other hand, companies which are pursuing growth policies are more likely not to payout dividends to shareholders, but they are reinvesting the proceeds of the just finished financial year in order to grow faster\(^\text{25}\). Value and growth firms are both linked to their payout policy and a change in it could be not fully understood by their shareholder base. For this reason, if a value company wanted to pursue growth strategies thinking about changing its dividend policy, it could face reluctance in the existing shareholder base, which may withdraw their investment and lower company’s share price. Therefore, in order not to let the value of the company collapse, one of the factors which could induce firms to exit capital markets is the dividend payout policy\(^\text{26}\).

As last point to highlight, it is possible to see that it is increasing the number of firms which are exiting the market a few years later the IPO. The evidence regarding this phenomenon is more accentuated on European markets than in US. The motivation behind this choice can differ from firm to firm, but, generally speaking, it is possible to define two categories, which are constituted by those companies that took advantage


from the listing and those which have been harmed by going public. In the first group, it is more likely to find those firms whose management planned to enter capital markets just to exploit a short-term bull market, exiting from them right on time, once the favorable condition was over. This, generally, translates into a not irrelevant increase in firm’s value once the experience on capital markets finish. The other group is, instead, composed by those organizations which did not achieve the expected advantage from going public. Therefore, the IPO price is higher than the last reported price on capital markets and this result into net losses both for shareholders and company. In this case, it is possible to conclude that going public has not been a proper strategy and the firm would have better off to remain private.

1.2.2 The Choice between Staying Public and Going Private: Governance and Ownership Perspectives

Besides the strategic rationale and the financial motivations which lead an organization to think about the delisting hypothesis, it is very important to underline the role of investors’ base and managers’ participation in the choice whether to stay listed on the stock market or go private. Boot, Gopalan and Thakor at the end of the last decade, when a large number of deals which can be grouped as voluntary delisting processes was occurring, studied and tried to formulate a framework to explain the most likely reasons of public-to-private transactions. It is true and easily evident that being listed on the stock market gives any firm great advantages, such as the lowering of the cost of

capital or the larger likelihood of accessing to external credit, but, at the same time, companies may face a large number of drawbacks. As the authors state, “the liquidity of public ownership is both a blessing and a curse”. The continuous change in investor base may, in fact, expose firms’ management to uncertainty and affect its autonomy in decision making, slowing its ongoing activity. Investors, in this sense, are continuously facing a trade-off, because while, with a more severe corporate governance and active participation, the management would not undertake projects they do not like, on the other hand, higher strictness would lead to a lower managerial effort, which would bring to lower likelihood in undertaking more favorable and profitable projects.

What strictly differs from public-to-private ownerships is investors’ heterogeneity. Staying listed on public capital markets means, from the point of view of the board of directors, dealing with different owners, which have different levels of agreement with it. On the other hand, private companies are characterized by the presence of one, or at least few and coordinated owners, which surely guarantee a more stable alignment between management and investors. For this reason, managers’ activity and, subsequently, their optimal investment projects are based on future expectation of investors’ composition, in the case of public companies. By contrast, in private firms, they are based on actual owners’ preferences, since illiquidity does not allow investors to easily withdraw their equity share. Therefore, going public leads to a great disadvantage for entrepreneurs, that can be identified by his (or her) loss of control over the company. This issue is well exposed in a paper by Pagano and Roell, where the authors develop a model which let everyone understand how the entrance of a new

shareholder, who has higher monitoring technology and bargaining power can easily buy out the previous monitoring shareholder. The same situation cannot happen in private ownerships, because not being traded on public exchanges allows the entrepreneur to prevent any transfers of ownership power and, therefore, to gain from any surplus created by the firm. In the case of publicly traded companies, a constant ownership base, and, so, a higher control over the management, similarly as in private firms, can be given by coalitions between shareholders\(^{31}\). These forms of agreements among two or more shareholders are called syndication and are often exploited in delisting procedures where it happens to face large and very expensive deals.

Going deeper in the analysis of the reasons behind the choice between public and private ownership regarding governance, the controlling shareholder, or the coalition of investors which holds a relevant part of the firm’s equity, would consider the hypothesis to go private only if the valuation of the future cash flows as if the company was private exceeds the continued publicly traded\(^{32}\). There are several elements to take into account when considering the choice of a public-to-private transaction regarding the roles of management and investors. In fact, the individual shareholder’s value perception of the company is highly correlated with the level of agreement with its board. For this reason, as controlling shareholders want to buy out the remaining part of the investors, transactions would occur at a premium over the stock price around the public announcement. Therefore, it is possible to state that the higher is the minorities’ participation in the firm and the commitment to it, the higher is the cost to afford for going-private transactions. Hence, in case of lower participation, there is higher


probability of delisting and it is more likely to face relatively cheaper transactions. This leads to a higher likelihood of public-to-private operations when stock prices are sufficiently low, so when the firm can be perceived as undervalued. Looking from individual investors’ perspective, lower participation in the firm would result in a high propensity to sell or withdraw their shares, which would lead to higher volatility in stock price. Indeed, in going-private transactions, it is more likely to face not only companies with relatively low stock prices, but also with high volatility.

The ownership structure, as already referred above, is not the only side to consider when there is the choice between public and private. Other actors to take into account are represented by directors and their preferences. Managers would prefer to change from public to private ownership whenever the agreement between the hypothetical private owners exceeds the same parameter as if the firm would continue to be traded on the stock market. To be more concise, a manager would prefer the ownership structure which guarantees him (or her) the higher agreement to the investors: when a manager is in accordance with the controlling side, then there will be an increasing search effort by him, resulting into a more likely good performance\textsuperscript{33}.

As already analyzed above, the larger is the portion of stock wealth owned by the potential private investors, the higher the probability of positively succeeding. In this particular situation, Private Equity firms are, nowadays, increasing their relevance in this role. Given their objectives and power in the current market, the emergency state of a firm, both from financial and governance perspectives, would represent a major force in buying out from the public stock markets and a subsequent enlargement of the team

composed by potential private owners, increasing the probability of letting the transaction be successful.

To sum up, besides strategic rationale and companies’ performance, significant factors which influence firms’ decision between remaining publicly traded and going private are corporate governance, liquidity and stability of the firm’s shareholders base. Therefore, an active participation of the firm in the market, which would result into a lower stock price volatility, given by the presence of several but interested not-controlling shareholders, together with an active participation of the ownership base itself, constitutes significant evidences of not opting for voluntary delisting.

1.2.3 Going-Private Drawbacks

There are not only advantages in going-private transactions, because, in any case, the phenomenon deals with a company which is not anymore public and, therefore, not as easily reachable and transparent as before. Going private would mean facing higher relative difficulties in raising capitals for investments, since the firm is not anymore easy to control and monitor through the above discussed disclosure obligations. Therefore, these difficulties in finding funding sources may translate into a higher firm’s cost of capital\(^\text{34}\). The sources of any kind of firms are represented by equity and debt: since capital raising for investments could be done either through equity or debt issuing, these sources pushes up together the weighted average cost of capital.

Delisting disadvantages are not over yet, since not being anymore traded on capital markets give further drawbacks for the owners of a company. As already denoted above, going-private transactions lead to shares’ illiquidity. This difficulty to trade

shares is given by the fact that investors cannot easily withdraw their position in the ownership structure. Thus, shareholders may be forced to be owners of something they do not want to or did not want anymore. This problem may affect both controlling and minority shareholders, but it harms minorities more than others, since they do not have any power in the company, due to their low voting percentage. Some firms, in fact, in order to mitigate against this kind of potential drawback, thought to give minorities the chance to trade shares on a predefined bargain basis through their broker. Clearly, this is not the most favorable solution for minority shareholders, but at least companies give the opportunity for them to exit the investments, since in these cases it may seem frustrating to hold illiquid shares.

The last point that seems relevant to raise is about operating performance after voluntary delisting. Public-to-private transactions are even done to exploit growth investment opportunities, as mentioned above, but evidences on Continental Europe throughout this last decade underline the difficulty to achieve the purposed operational targets. In fact, empirical findings by Croci and Del Giudice does not report any substantial positive change in profitability, highlighting a relative stable operating performance, calculated through the difference between the ROA registered the first year after the delisting and the last reported when the firm was public. The authors, given the governance and ownership-related footprint of the publication, justified it saying that controlling shareholders do not rightly exploit private information they have to reach higher profitability standards. Thus, minority shareholders have not missed out any substantial gain, once exited the company when it was voluntary delisted.

35 DLA Piper, 2009, Delistings and Share Buy-Backs, Venulex Legal Summaries.
1.2.4 What Differs M&A with Listed Companies from Public-to-Private Transactions

There are several characteristics that can be relevant to highlight regarding firms which are involved in going-private and still-listed transactions, despite the point in common, which is defined by the delisting phenomenon. As, in fact, it has been already deeply analyzed before, even if firms are target in a M&A transaction where the acquirer company is listed on public markets, the acquiring firms’ stocks’ removal from the exchange can be considered as a form of voluntary delisting.

Taking in consideration a paper by Weir and Wright written in 2006\(^{37}\), the first paper in literature of this genre, where the authors tried to study the differences between public-to-private and traditional acquisition of listed companies, the analysis will cover both financial and governance factors. Starting from the firsts, the authors found, in compliance with the above explanation regarding the choice between public and private, that going-private firms have lower growth prospects than acquired firms by public corporations. This can be explained by the fact that, whether a public firm has high, or at least valuable, growth opportunities, in order not to waste the chance to more than increase its value thanks to market reactions, it will never decide to hide itself from capital markets going private. For this reason, firms with a reasonable expectation in growth would be more likely to be target firms for mergers or acquisitions with a public company rather than a private one.

In one of the previous paragraphs, where the discussion was about financial and economic perspectives in deciding whether to remain public or going private, it has not referred anything about the cash flow hypothesis. The reason behind it stands in the fact

\(^{37}\) Weir, Wright, 2006, Governance and takeovers: are public-to-private transactions different from traditional acquisitions of listed corporations?, Accounting and Business Research 36, n°4, 289-307.
that, in the existing literature comparing still public and going private firms, there is no univocal response in the cash flow component: some authors, among others Lehn and Poulsen\textsuperscript{38} and Jansen\textsuperscript{39}, in fact, stated that going-private firms are more likely to have higher cash flows with respect to still-listed ones, while, on the other hand, Opler and Titman\textsuperscript{40}, together with Halpern, Kieschnick and Rotenberg\textsuperscript{41}, found no significant evidence to the cash flow hypothesis. Regarding the difference between going-private companies and target firms of listed corporations, Weir and Wright concluded, as the last group of authors, that cash flows were not higher in firms subjected to public-to-private transaction, not supporting the cash flow hypothesis.

The most relevant findings relative to the difference between going-private and acquiring firms by listed companies regards governance and ownership structure, rather than the financial point of view. It has been found, in fact, by Weir and Wright, that public-to-private corporations have more likelihood to have insiders than firms subject to M&A by listed companies. This can be explained as follows: having a higher percentage of insider ownership, which here is calculated as ownership held by managers and directors, means being more aware of the real capabilities of the firms, even in terms of growth opportunities than in terms of internal and external threats. For more concentrated management ownership firms, indeed, it is more likely to exploit public-to-private transactions, through for instance management buyouts, rather than sell the firms to listed groups, or merging with them, so losing the power in their hands.

On the basis of the previous paragraph, it is relevant to underline the delisting implications relative to M&A transactions even for newly public firms. The IPO step in the lifecycle of a firm, in fact, can be seen not only as a way to let the world and the capital markets know and understand the capabilities of a company, but private firms may become public also for consolidating their value in order to be sold out to a future bidder\footnote{Zingales, 1995, Insider Ownership and The Decision to Go Public, Review of Economic Studies 60, 425-448.}, which could be both public or not. In a publication by De and Jindra\footnote{De, Jindra, 2012, Why Newly Firms Become Acquisition Targets, Journal of Banking & Finance 36, 2616-2631.}, in fact, the authors do not separate, as it has been made throughout this paragraph, going-private from target firms for listed companies, but provide just three samples, which are: acquisition targets, delisted firms subjected to involuntary delisting, and organically growing firms, those which remain independent from any kind of business combination. Notwithstanding this different way to proceed, the paper is helpful in understanding which drivers lead newly listed firms to become good acquisition targets. Regarding quantitative factors, operating results and stock performance are the most relevant elements to look at in distinguishing a good acquisition target from a potential involuntary delisted firm: the better the results, the higher the stock performance, the more likely to be an acquisition target a firm is. From a governance perspective, instead, the more a firm is owned by institutional investors, the higher is the probability to be a good acquisition target. The rationale behind it may stand in the short-term business perspective of this class of investors, whose objectives are mainly to exploit profit opportunities for their own portfolios rather than thinking from the firm’s perspective, saving its independent identity.
Thus, linking this research to the one by Weir and Wright cited above, it is possible to conclude that there are some characteristics which unite voluntary delisted firms through M&A transactions and acquiring firm by a listed company, such as past operating as well as stock performance, and some elements which let the investors understand the differences among them: future growth opportunities and insiders’ ownership percentage.

### 1.2.5 The Rationale behind Going-Dark Transactions

Going back to the going-dark definition, the difference with public-to-private transactions does not stand only in the result of the transaction, but also in the rationale behind it. Going-dark literally means hiding or obscuring itself, but still trying to remain a public company, because the ownership is still diluted among several shareholders and the stocks are traded on an exchange. As Leuz, Triantis and Wang pointed out in their work\(^\text{44}\), the reasons why a firm decides to hide himself through this deregistration with subsequent trading on the deregulated markets can be grouped in two: the “cost savings” and the “private benefits”. Regarding the first set, the going-private rationale goes hand in hand with the going-dark one, since deregistration from the national security exchange commission’s filings happens in both the procedures. Therefore, as already referred above regarding public-to-private transactions, in US, after the SOX Act issue in July 2002, the number of going-dark deals dramatically increased. The authors, in fact, stated that this can be viewed as “shorthand for management’s effort to maximize shareholder value by ceasing to file with the SEC when the net benefit of such reporting has become negative”.

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While the “cost saving” rationale can be seen as the bright side of the going-dark phenomenon, the other set of reasons, which has been called “private benefits”, could be the one that feeds the negative market and shareholder impact on share price around the public announcement. Going-dark allows directors, and indirectly controlling shareholders, not to disclose all the reports and data as they should do when the company is on the public listings. Therefore, this procedure may be driven by insiders’ interests because they do not want to disclose some data or maybe because the prospects are worse than what the market previously known. Thus, going-dark tends to sharpen the asymmetric information which is present between insiders and outsiders in a company.

Switching the focus from the rationale behind this kind of transaction to the main characteristics a firm has when goes dark, obviously large and good healthy companies are not objects of this phenomenon. Generally speaking, it is possible to state that distressed companies and firms with fewer valuable growth opportunities, higher leverage and lower market momentum are more likely to go dark, while, looking at the ownership side, as a result of the digression in the previous paragraph, there is higher likelihood for companies which have greater insider ownership and lower institutional investors’ participation.  

1.2.6 What Makes Involuntary Delisted Firms Different

Notwithstanding the requirements which have been analyzed above show very low thresholds in values, among others, for instance, shareholders’ total equity, there has been a lot of firms which have experienced involuntary delisting from the US financial

markets. According to a research by Macey, O’Hara and Pompilio\textsuperscript{46}, in fact, from 1995 to 2002, before the issue of the SOX Act, almost half of the delisting procedures on the US exchanges have been involuntary, on a total number equal to 7300. Considering that, in order to be delisted in this way, firms should already pour in distressed conditions, evidences from involuntary removals from the NYSE show a subsequent significant increase in cost, both for the firm and the ownership base, after the delisting announcement. Being removed from a major exchange, however, does not mean that the equity cannot be traded elsewhere. For instance, it is very likely that, if the firm is not in distress, it would be continued to be traded on deregulated markets, the OTCs. From a quantitative point of view, to better understand the consequences after an involuntary removal, the above cited paper is very helpful. The authors, in fact, found that post-delisting stock price declined by approximately half on average, while bid-ask spread tripled and volatility doubled in percentage, with respect to its past performance on the NYSE. This can be translated, in common words, as a harmful event both for the company and its own shareholders, since their wealth is affected, as well as liquidity, which is extremely decreasing, due to the moving to a deregulated market.

Regarding the characteristics showed historically by US firms involuntary removed from the New York Stock Exchange, a distinction between financial indicators and governance\textsuperscript{47} can be made. As it could be easily foreseeable, involuntary delisted firms radically differ from similar survived firms in market-to-book ratio and operating-income-over-total-asset. Involuntary delisted companies can be, in fact, labelled with the following characteristics: low market-to-book ratio, large and negative operating-


income-over-total-asset ratio (with an even more large result considering the last three years before the delisting) and low value in total assets. Thus, empirical evidences show that performance and size are the most relevant factors to look at for distinguishing involuntary delisted firms from the others.

Looking at governance and ownership perspectives, instead, the characteristics underlined for a higher likelihood of being involuntary delisted reside in the composition on the board of directors and the percentage of insider ownership. Starting from this last point, as Morck, Shleifer and Vishny\textsuperscript{48} argued, insider ownership is positive correlated with firm value and alignment shareholders’ interests. Consequently, it is noticeable a negative correlation with involuntary delisting likelihood. Regarding the composition of the board of directors, it is very important to highlight that the higher is the percentage of outside directors, the higher is the probability of not being removed from capital markets. This can be explained by the fact that a more independent board would lead to higher shareholder protection from any possible managerial opportunism, so allowing the happening of a better performance.

2. Minority Shareholders in Delisting Transactions

As already highlighted in the first chapter, voluntary delisting procedures can be identified as takeovers or, generally speaking, deals in the M&A environment. Therefore, in order to have a general overview of the regulatory framework regarding removal from capital markets, it is necessary to go through the law which characterizes these kinds of transactions in United States and Europe. Despite the fact removals can occur also through merger agreements, the focus, in the first section, will be on the Takeover Law, which regulates the majority of transactions. The analysis will cover the cornerstones of the current legislation in both the environments, underlining and comparing eventual differences.

The attention will shift, in the second part of the chapter, on minority shareholders, before highlighting the role and the rights together with the problems the existing literature has pointed out. To conclude, the third section will analyze squeeze-out and sell-out rights.

2.1 EU Regulatory Framework

The European Union is an economic and political partnership between 28 Member States which was born more than half of a century ago. This international organization is unique in its genre, since, despite of the independent sovereignty of its own members, some of their powers are delegated in order to benefit from size and gain strength in the world economy. Thus, it may seem a hybrid between the federal system, as the United States, and the intergovernmental cooperation system, whose best example resides in
the United Nations\textsuperscript{49}. For these reasons, in fields like economics and finance, EU issues directives and all Member States, looking at their codes, are required to comply or, at least, verify that state law is not contradictory.

Regarding takeover regulation, EU issued in 2004 the Directive 2004/25/EC, which set measures to coordinate laws and regulations on takeover bids related to the trading on regulated markets in all Member States\textsuperscript{50}. As it is possible to observe from the previous sentence, the international body did not set any norm to strictly follow, but it gave all the states guidelines to coordinate their own normative codes among themselves, in order to help companies, investors and all the other agents which work on capital markets.

Analyzing in details the Directive, the offeror, the natural or legal person who makes the bid, given specific thresholds in terms of voting rights, can advance a voluntary or a mandatory bid, in order to gain the full control of the target. While a voluntary bid is an offer the acquirer moves in order to purchase a predetermined percentage of shares, the mandatory one requires the offeror to buy the totality of the shares on the market. As it will be observed later in this chapter, mandatory bids are not present US legislation, since there is not compulsory to purchase the entire equity of the target firm. However, there are some limitations regarding the mandatory bid’s entry in force and these thresholds are set by Member States individually. In any case, it is binding to make an offer whenever a control position in the firm is acquired\textsuperscript{51}: thresholds can vary from

\begin{flushright}
\textsuperscript{50} 2004/25/EC Directive, Art 1
\textsuperscript{51} 2004/25/EC Directive, Art 5
\end{flushright}
25% to 66% of the totality of the voting rights, but the majority of the Member States sets the bar at 30%\textsuperscript{52}, among them, for example, there are France, Germany and Italy.

The second pillar for the Directive on Takeover Bids is constituted by the neutrality of the board. Going in details, the board of directors, once learnt about an offer aimed to acquire, cannot do anything but inform the shareholder base and search for alternative bids, before the general meeting of shareholders expresses its will through a vote\textsuperscript{53}. This means that, in order not to affect the natural procedure when a bid occur, the board of directors cannot take any defensive measure, even if it seems appropriate, given the nature of the offer (for example the target could have faced hostile bids). The neutrality decades once the general meeting gives the authorization to proceed with such defensive measures. It is very interesting that the Directive explicitly allows just one kind of acquisition’s defensive measures and excludes all the others\textsuperscript{54}. Searching for alternative bids consists, in fact, in the so called “white knight” defense, while, for example, the use of “poison pills” to dilute acquiring firms’ stake is not allowed.

The breakthrough rule is another important tool the EU Directive provides the offeror, because, following Art. 11, it let all the pre-bid arrangements among existing shareholders, or between the target company and its shareholders, decade once a takeover bid is carried forward\textsuperscript{55}. It is, in fact, related to arrangements like voting rights, since no shares can have multiple votes once a bid is made, and share transfers, given the repeal of all the existing limitations. It is singular how this rule is differently judged: while the EU Commission Staff Working Document considers it as a significant rule to

\textsuperscript{53} 2004/25/EC Directive, Art 9
\textsuperscript{55} 2004/25/EC, Art 11
facilitate takeovers, allowing bidders to quickly succeed\textsuperscript{56}, experts and researchers define it as one of the most controversial and problematic tool of the Directive\textsuperscript{57}.

Following the path of the articles in EU takeover legislation, the last comment can be made on the possibility for Member States not to consider the last two provisions we have analyzed here: board neutrality and breakthrough rule\textsuperscript{58}. As underlined earlier in this section, EU always leaves room for its States in order to save their own culture and traditions, even in economic and financial fields. The Directive, whether a State does not consider these two rules, gives all the firms incorporated in that particular country the opportunity to apply them on voluntary basis. Going in details, 18 countries decided to follow the rule upon board neutrality and, in 13 among these, this concept was not completely new. Regarding the breakthrough rule, instead, the majority of the States has made it optional for firms: each country sets its own threshold to apply the provision\textsuperscript{59}.

2.2 US Regulatory Framework

United States legislation system differs from European’s one since the former is a full federal system, composed by 50 states and 1 federal district. US companies traded on capital markets are not following federal law, but they are organized by state law. Indeed, to give some examples, state that rules on board of directors’ duties, as well as on the thresholds whenever the vote of the general meeting of shareholders is needed. Firms’ distribution is not equivalent across Federal States in US, since in Delaware more than 50% of the publicly traded firms are incorporated and, among them, there are

\textsuperscript{58} 2004/25/EC, Art 12.
approximately two thirds (64%) of the Fortune 500, the US largest caps\textsuperscript{60}. The question to ask is, so: “Why Delaware?” Lewis S. Black Jr. tried to answer this question, saying there is not just one motivation, but it is “a number of things” that leads firms to choose this particular State: one of the most flexible and advanced statute among all the states, its respected Court of Chancery, but also small and less intangible factors, such as the pro-business open-minded populace’s mentality\textsuperscript{61}.

Despite the fact federal law does not rule firms’ internal organization, there are two important acts which have to be considered when we talk about takeovers, or M&A deals in general: the Securities Act of 1933 and the Securities Exchanges Act of 1934. Regarding the first, in fact, the provisions are applied if the deal consists in exchanging securities, or, to better say, the acquiring firm rewards target’s shareholders with securities of the offeror, rather than through an all-cash transaction. Since the norms in the act are very strict in terms of reporting requirements, the procedure is time-consuming and expensive\textsuperscript{62} for foreign acquirers which have not listed their shares, or registered themselves, on US public exchanges: they have to disclose and submit to the SEC, just to mention some of them, annual, quarterly and interim reports.

The second federal act, the Securities Exchanges Act of 1934, consists in two significant sets of rules: the proxy and the tender offer rules, which have been introduced in the act through the amendment in 1968 by the so called Williams Act. This amendment started to rule the basics of any M&A deal: the disclosure requirements about offer’s characteristics and the procedures which govern tender

\textsuperscript{60} State of Delaware Website: http://corp.delaware.gov/
\textsuperscript{61} Black Jr., 2007, Why Corporations Choose Delaware, Delaware Departement of State, Division of Corporations.
\textsuperscript{62} Clifford Change, 2010, A Guide to Takeovers in the United States, Clifford Change Europe LLP.
offers. Going in details, whether an offeror acquires more than 5% of a company’s voting shares, the person has to disclose additional information regarding the nature of the acquisition and further plans with respect to the target, in order to protect existing shareholder base. It is very interesting to underline the difference in terms of relevant participation between European countries and US, since, concerning the formers, there is no specific requirement in this sense, specifying just the threshold that highlights control in a firm (equal to 30% in the majority of the Member States). Given the difference in tradition and ownership structure among firms, US law is more careful about participation in firms even for percentages which may seem not relevant for most of the European Continental countries.

Moreover, the Williams Act introduced the structure of a tender offer, not considering, as the EU did in its Directive, mandatory bids. There are no different kinds for tender offers, but minimal requirements both in procedural terms, regarding the length of time and the price to pay, which has to be equal to all the shareholders, and qualitative terms, again highlighting motivations and possible future changes in target firm’s structure.

Focusing now on state law, which includes the majority of the provisions to follow in case of takeovers, since US is regulated by case law, regulations are again influenced by real cases. Since the 1980s’, in fact, courts, in particular the Delaware one, have developed a framework to establish fiduciary duties. In this section, in order not to mislead the attention from the principal argument, there will be highlighted just one example. This regards the Unocal Corp. vs. Mesa Petroleum Co. case, which is a

64 Section 13 (d), Securities Exchanges Act of 1934
65 Section 14 (d), Securities Exchanges Act of 1934
milestone in US jurisprudence concerning directors’ duties during hostile takeovers. Delaware court expressed, in fact, that directors, in case of hostile takeovers, are moved by conflict of interests, since it is very likely that the offeror would replace the board of directors, whether the acquisition is completed. Therefore, the judges moved a two-part test to determine whether the board of directors could use any defensive measure to limit the hostile takeover. During the first part, directors had to give reasonable motivations about the dangerous nature of the transaction. The second section constituted, instead, in exposing the defensive measures the directors wanted to implement, proving reasonable effectiveness to the prior enunciated threats. The court, after this two-part test, concluded stating that the board of directors proved judicious motivations “showing good faith and reasonable investigation”, authorizing them to take those defensive measures without the approval by the general meeting of shareholders. This case became one of the most influential in US takeover law, ending up with the possibility to directors to arbitrarily take defensive measures whether they show “good faith and reasonable investigation” after the two-part test.

2.3 Focus on Minority Shareholders

The existing literature, analyzing regulations and real M&A deals throughout more than 50 years of history, highlight the existence of 3 classes of actors whenever a transaction occurs: the acquirer, which can be an individual or a company, target company’s shareholders and board of directors. In each operation, these types of agents may face conflicts of interests, given their different objectives to pursue. The acquirer, in fact,
has the objective to close the deal offering shareholders a price which embodies a premium above the market price of the shares, but that still allows him an NPV higher than zero, to take the control of the target firm. Directors, on the other hand, as already underlined in the previous section, before undertaking any kind of actions, want to have guarantees on their roles after the transaction, given the possibility to be fired whether the offeror provides a change in the management structure. To conclude, target company’s shareholders will decide to tender their shares at the offer price on the basis of their expectations: if the price is considered fair, they will tender and exit the investment; if, instead, the offer price is set too low, they will not tender, since they believe they can make more remaining shareholders (snatching a higher tender offer price or gaining from future earnings with a different ownership structure).

To deepen the study in this chapter, the shareholders’ class has to be divided in two parts, decomposing majority from minorities. The reason why this distinction has to be made is the misalignment in objectives and perspectives from any deal, a fortiori the ones which regards the exit from capital markets and subsequent shareholders’ disinvestment. Conflicts may arise in the shareholder base given the typology of the offer. If, for example, the purpose of the offeror is not the full control, taking the 100% of the target company, but just holding a relevant position, the acquirer may follow an easier and cheaper path rather than buying the shares on the market: negotiating with controlling shareholders and then liquidating the minorities through the so called “squeeze-outs”, which will be the main argument of the next section. Therefore, offering the majority a portion of the forecasted gains from the takeover, the acquirer
will not consider the minorities at all, letting them be rewarded with a lower amount per share than expected\textsuperscript{69}.

Another situation where conflicts between majority and minority shareholders may occur is in the case of two-tier tender offers. These kinds of procedures were very popular during the 1980’s in US and became obsolete after the introduction of a new rule by the Security Exchanges Commission regarding the fair price in case of tender offers\textsuperscript{70}. The acquirer firm, in this genre of transactions, advanced a tender offer financed by debt, in order to gain the control of the target firm. Once owned the majority of the shares, the company merged with a subsidiary of the offeror, the one that issued debt to finance the tender offer. In this way, target firm’s share price lowered and the remaining shareholders, who represented the dispersed minorities, could be cashed-out with a second tender offer, whose share price would very likely to be lower than in the first tier\textsuperscript{71}.

However, these are just two evident examples of possible harm towards minority shareholders. Therefore, minority protection, during these last decades, has become one of the most important issues in company law, but, at the same time, one of the toughest\textsuperscript{72}. Notwithstanding the majority voting, which has been identified as one of the cornerstones for firms’ correct performance, in each entity, as already underlined above, all the parties involved have to struggle among themselves regarding their own interests.

\textsuperscript{69} Gilson, 2005, Controlling Shareholders and Corporate Governance: Complicating the Comparative Taxonomy, European Corporate Governance Institute.
\textsuperscript{70} Muller, Panunzi, 2004, Tender Offers and Leverage, The Quarterly Journal of Economics, n° 4.
Thus, even inside the shareholder base, there is a subtle but defined line which separates the interests of majority and minority shareholders.

Moreover, there is no clear definition, from a normative perspective, on minority shareholders, a part from the pure numerical explanation\(^\text{73}\), which allows defining as minority ownership in a company whoever holds less than 50% of the total number of the shares without having a relevant position. Therefore, it may happen that the appellative minority could be attributed to an individual investor who has just a very restricted number of shares in his (or her) portfolio, a pension fund which holds 3% of a widely-owned firm and a person who owns 20% of the whole equity in a family business.

Company law has been moving coping with the interests of minority shareholders across countries during the last twenty years. Looking at the board of directors and its members’ appointment, US has been the first to report this issue through the Sorbanes-Oxley Act of 2002, requiring for all the publicly traded firms on the largest exchanges (NYSE and NASDAQ), for example, to have the majority of independent directors\(^\text{74}\). To be selected as an independent director, among other rigid parameters, a person has to be external to the company, in a sense that he (or she) must not be employed by the company, as well as any other individual with which the person has relationships.

Regarding EU, given the difference in company law across the Member States, the attention will be focused on Italy. There, three years later, in 2005, a specific regulation upon directors’ appointment was established, giving the chance for the minorities to


choose at least one member of the board of directors, without majority shareholders’ interference. For the first time, the Italian company law addressed the issue of minority shareholders and tried to overcome this problem letting them appointing at least one director “from the minority slate that obtained the largest number of votes and is not linked in any way, even indirectly, with the slate that ranked first by number of votes”\textsuperscript{75}. Moreover, in 2006, a revised version of the Corporate Governance Code, issued by Borsa Italiana, highlighted a co-existence problem among majority and minorities, claiming to take into account in the election of the corporate bodies both majority and minority shareholders’ interests.

According to a publication by Mukwiri\textsuperscript{76}, Takeover Law issued by the EU Commission has not the protection of minority shareholders as one of the final purposes, but this has been used just as a merely incidental instrument to the true objective, which is “facilitating EU-wide corporate restructuring”. Following his point of view, English law gives a better minority protection in this field. About this argument, one of the latest news on amendment of UK Company law has been reported by the Financial Times\textsuperscript{77}. This last improvement in regulations strengthens even more minorities’ protection in case of delisting of a company. Under this new proposal, in fact, controlling shareholders, in order to remove the target firm from capital markets, have to have the approval of the majority of independent directors. This modification has been made because the threshold given by the vote in the general meeting of shareholders (75% of the total voting rights) was not sufficient to give full protection towards minorities.

\textsuperscript{75} Malberti, Sironi, The Mandatory Representation of Minority Shareholders on the Board of Directors of Italian Listed Corporations: An Empirical Analysis, Bocconi Legal Studies Research Paper, n° 18.
\textsuperscript{77} Allen, 2014, Minority shareholders’ rights to be beefed up, Financial Times, 20\textsuperscript{th} April 2014.
Thus, even looking at latest amendments, UK law is the one which cares more about minorities’ interests in cases of M&A deals and delisting of a company.

The concepts of board neutrality and mandatory bids which have been explained in the previous section regarding EU regulatory framework have been inspired from UK law. English takeover law was the first, in fact, to ensure the interests of the entire shareholder base, not looking at it as if there were just controlling shareholders. However, the board neutrality provision, which would change the perspective from managerial to shareholder-oriented\(^{78}\), is not mandatory in EU, but, recalling Art. 12, the Directive made it optional, misaligning from UK framework, which made it compulsory. Regarding mandatory bids, EU regulation made it not optional in substance, letting Member States just changing the thresholds that underline control position in the company. In case of family-owned businesses, minority shareholders would be better off tendering their shares and exit the company before it is too late, in order to avoid a likely decrease in share price after the bid time-horizon effectiveness\(^ {79}\). Therefore, this provision may eliminate the chance to face opportunistic bidders\(^ {80}\), since the tender offer price has to be fair and, so, the acquirer should pay a considerable premium above the current share price, looking target’s past operative performance and growth opportunities.


Moreover, always looking at minority protection, there are two fields where EU Directive is stronger than UK regulation. According to the existing literature\textsuperscript{81}, common law, in fact, does not put so much emphasis on equal treatment of shareholders and information disclosure in cases of takeovers. The reason why EU chooses to treat shareholders in M&A transactions equally is given by the will to delete the risk of minority to suffer from front-end tactic, the one which has been highlighted as example in the beginning of this section.

To conclude, minority protection is present also when EU disciplined cross-border mergers among Member States. Even if optional, since the Directive leaves room to each Member State to discipline on it, this issue gives firms two ways-out: every time, during the transaction, the general meeting votes, this has to approve that the minorities can obtain relief in their own state at the expenses of the surviving company; alternatively, the merger can be done only if all the minority shareholders have been fairly rewarded\textsuperscript{82}. Going in details, focusing on Italy as one of the Member States, even if the law does not explicit the particular of cross-border mergers, in 2004, withdrawal rights for minority shareholders were introduced, letting Italian legislation result in one of the best-developed on this issue.

\textit{2.4 Squeeze-Out and Sell-Out Rights}

Once controlling shareholders gain relevant percentage of target’s entire equity, it is possible for them to exercise a procedure which gives them the rights to be the only shareholder of the corporation. This power has different names: freeze-out, squeeze-out

\textsuperscript{81} Ferrarini, Hopt, Winter, Wymeersch, 2004, Reforming Company and Takeover Law in Europe, Oxford University Press.

or sell-out rights. Basically, the definitions of these three typologies of transactions are almost the same and they are interchangeable. To give a common definition, this procedure involves “the use of majority control to consummate a statutory corporate proceeding that is intended to, and has the result of, eliminating from the corporation all of the shareholders not a part of such control”83. What changes between freeze-outs, squeeze-outs and sell-outs and let the first two differ from the last one is the perspective. In fact, if in case of freeze-outs and squeeze-outs controlling shareholders have an active role, having the possibility to eliminate all the minorities in the ownership structure, taking the full control of the firm, sell-out rights, oppositely, are in minorities’ hands and let them require majority shareholders to purchase their portion of equity at a fair price84.

Two types of squeeze-outs can be defined. These are called corporate and takeover squeeze-out. As it is possible to observe from their names, the meaning is straightforward: it is called takeover squeeze-out the procedure which occurs whenever there is an acquisition by a controlling shareholder or a third part, typically following the scheme of a tender offer; on the contrary, under the term corporate all the other kinds of transactions are grouped, from mergers to capital increases or reverse stock splits.

The existing literature shows that the most frequent tactics when this kind of rights is used are public-to-private transactions and the so called cash-out procedures. The first one has been already analyzed deeply in the first chapter and, in particular, focuses on

84 Babak, 2012, Adoption of Squeeze-out and Sell-out Rights of Shareholders in Ukraine on the Basis of a Comparison of EU, Germany and USA, Central European University.
the elimination of all the other participants in the shareholder base for the purpose of removing the target firm from public trading. This transaction may occur in different ways. The most popular one is the cash-out, which simply means an operation where cash serves as the consideration for minorities’ participation. However, there are other tools used to gain the full control of the target firm without using the squeeze-out rights: reverse stock split, selling all the assets of the corporation, dissolution or another tender offer by the majority.

Looking from an historical perspective, this argument has raised particular attention concerning voluntary delistings and, to restrict the circle, going-private transactions, since, before the ultimate regulations were issued in US and EU, the acquirer often took advantage of market fluctuations unfairly, offering lower compensations to minorities.

In fact, in mid-70’s, a lot of corporations were knowingly taken out from the market by the majorities in order to exploit a down-ward stock price trend, so producing high profits for themselves and, consequently, harming minority shareholders, given the price to pay to existing minorities to purchase their shares was unfair and very low. The harm towards minority shareholders cannot be just restricted to the amount of money they received to exit the investment: this is just a portion of the damage, since these expropriated shareholders, once liquidated from the delisted firm, should find a new comparable investment with similar expectations to the one just surrendered and they have to face income tax consequences for having disinvested in a point in time they

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probably did not want to. Therefore, in order not to harm minorities and to balance minority and majority shareholders’ interests, the regulatory framework regarding freeze-out rights has been constantly improved.

A more recent publication by Ferrarini et al. (2004) has, instead, focused on different reasons to exercise the right to eliminate minorities. These can be related to the costs of being publicly traded. Majority shareholders, in fact, can choose to take the full control of the target firm because of the high and disproportional costs they have to afford. Being traded on capital markets is costly and sometimes, in cases of limited-owned companies, controlling shareholders carry these infrastructural costs for minorities. Furthermore, given the restrict portion of equity and voting rights minority typically has in their hands, the necessity to disclose compulsory information regarding the ongoing performance of the firm is not worthwhile, since minority shareholders cannot influence in any case controlling shareholders’ voting power. Therefore, the last reason is given by the possibility to eliminate a free-rider problematic. In some situations minority shareholders are constituted by individual investors which are not involved in firm’s decision making and, however, whether they want play active roles, they would have no discretionary power, due to the low percentage of ownership. It may happen, instead, that some minority stockholders knowingly do not tender their own equity stakes in the first tier, hoping the post-takeover share price to increase and, consequently, gaining higher stakes selling at a later stage. However, this kind of minority shareholders is treated as free-rider, given the fact they did not react during the tender offer window.

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Taking into account this last point about squeeze-out rights as elimination of both the free-rider problem and minorities’ opportunism, Barkart and Panunzi\(^91\) (2003) argued that this procedure has the purpose to redistribute takeover gains: rather than letting minority shareholders participate to the bulk of the gains, the offeror can decide to exclude them. Thus, the authors would expect bidder’s return from the entire transaction to be higher in a regime with squeeze-out rights rather than without them.

Regarding current thresholds to exercise squeeze-out rights by controlling shareholders, as it was presented earlier concerning mandatory bids, in European Union the Takeover Directive leaves room to Member States to better fit with public markets’ characteristics and ownership structure conformation. However, thresholds are not very different among countries, since the rights to freeze-out minorities are included in a range that goes from 90% to 95% of the voting rights or voting capital. Going in details\(^92\), in countries like France, Germany, Italy and The Netherlands the threshold is fixed at 95%, while, in other Member States, such as Greece, Ireland, Portugal and Spain, the bar is set lower at 90%. Concerning, instead, the offered price to minorities has to be fair and not lower than the mandatory bid price, in order not to harm those shareholders who knowingly did not tender their shares earlier.

Furthermore, the EU Directive allows their constituents to add other legal requirements the bidder or the target firm have to respect in this specific context, in order to complete the framework. For instance, taking into account Italy\(^93\), the threshold lowers to 90% unless a free float sufficient to have regular trading on capital markets is restored within

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90 days. Moreover, Italian law also provides the possibility to exercise a simplified squeeze-out, whether the intention to freeze-out minorities is already written in the takeover bid (tender offer) document and, obviously, the offer concluded successfully.

Switching to US regulation, freeze-outs were, initially, deliberated by the general meeting of shareholders, where minorities had veto power. So, in order to avoid, in this sense, the dictatorship of minorities and, on the other hand, not to have overpower in majority’s hands\(^94\), US legislative bodies\(^95\) chose to reestablish the division of powers in these situations, letting the board of directors, in public-held companies, decide upon the right to squeeze-out minority shareholders. The board of directors’ decision has to be taken after having judged upon the fairness of the offered price. However, the threshold to respect whether the majority wanted to exercise the right to freeze-out minorities is 90% of total number of outstanding shares.

The UK normative framework does not stray from the other continental countries, which are ruled by EU Directive. The 2006 Companies Act, in fact, decided to set at 90% of both voting rights and portion of equity the threshold to opt for the squeeze-out right by the majority. Furthermore, the right is exercisable on a class-by-class basis whether there is more than one class of share capital. Additionally, the simplified version can be directly applied, if explicitly provided in the public offer document, whether the bidder has reached up to the relative threshold. It has to be underlined that, in UK law, there is no information regarding share price, which has to be not lower than the tender offer price in EU Member States. Thus, some authors argued UK legislator


\(^{95}\) It is referred to Delaware State Law, since the majority of public companies in US are incorporated there.
framework to silently agree with the right of the majority to expropriate the minority\textsuperscript{96}, without place any limitations about offering price.

In order to have a complete overview on minority shareholders, a brief deepening upon sell-out rights and eventual differences with its specular squeeze-out has to be made. In EU, as well as in the other jurisdictions, generally, thresholds for exercising this right mirror squeeze-outs, in order not to confuse the shareholder base and not to give different marginal power to specular rights. Furthermore, the EU Commission motivates sell-outs’ introduction with two important justifications\textsuperscript{97}. The first one concerns the impossibility to trade the shares given the post tender-offer ownership structure, which drives to illiquidity and, consequently, to a price collapse whether a minority shareholder wants to exit the investment. Therefore, the squeeze-outs’ reverse right has to be in minorities’ hands to prevent majority from extracting private benefits from the remaining stockholders\textsuperscript{98}. To even more justify the introduction of this power on the behalf of minorities, the EU refers to the sell-out right as a natural continuation of the tender offer period. For this reason, minority shareholders can use this tool to have a second chance to sell their shares, maybe because, during the mandatory bid period, they refused to tender, hoping for a different ending. In any case, given that the price, even for sell-outs, cannot be lower than the one during the first bid, there is no need to tender for doubtful shareholders, since they would not incur in any loss if the tender offer succeeds, so the threshold is reached and they can exercise their rights.

3. Empirical Analysis on the Voluntary Delisting Phenomenon

The choice to develop an empirical study in this work project is given by the will to go beyond the literature review upon the delisting phenomenon, trying to reach and find a set of conclusion which could enrich the existing framework. The main attention will be focused, in fact, on the Italian market, which, a part from very recent publications, such as the one by Tutino, Panetta and Laghi\textsuperscript{99}, has never attracted scholars and experts of the field. I thought this country, given its own particular conformation in terms of ownership structure and distribution of powers, together with its set of rules, to an ideal candidate to develop the study. Many times during the analysis, Italy will be compared with a benchmark, which has been identified with the US market, in particular the S&P 500 Index, which represents the index including the largest firms traded on the NYSE. US financial markets has always been, together with UK, the most studied exchange listings, given its capitalization, volume of trading and the large extent of the interests of any kind around it.

This study has the objectives to better understand what drives firms to remove themselves from listing, the differences in terms of fundamentals and, eventually, in returns for shareholders between companies involved in going-private transactions and those acquired by already listed companies. The last and equally important purpose concerns the will to find a relationship between controlling shareholders’ percentage of ownership and returns upon the delisting announcement for the shareholder base.

The structure the analysis will follow is the following: an exhaustive description regarding the sample selection will anticipate a digression upon descriptive statistics; a

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section on methodology will define the main structure of the procedure; the remaining sections, which are named as the steps in the analysis, will deeply focus on the formalization of the models, the expectations in terms of results, the empirical evidences and comments on the findings.

3.1 Sample Selection

To develop this empirical study about the delisting phenomenon I analyzed separately two different capital markets to better understand the dynamics that affect this phenomenon. Major attention will be paid to the Italian market, since it has been considered very interesting to study the delisting process in an economic environment which is constituted by significant family businesses’ tradition and controlling shareholder prominence in ownership base. These characteristics have been led to set up an empirical study in order to analyze the implication on minority shareholders’ wealth whenever a firm announces to remove itself from the exchange listing. It is really important to underline that those firms which have been acquired, or have merged, with an already listed company have not been deleted from the samples. The reason behind it is given by the fact that delisting can be, as it has been already explained in the previous sections, considered both as a pure public-to-private transaction and a M&A deal with a listed company, whose consequence is not the end of life on the public exchange, but the end of its own entity on capital markets. In fact, whenever a public firm is acquired by another public company, the former issuer would be removed from listing and incorporated in the acquirer, losing its identity on the exchange and, most of the time, being traded under the acquirer’s unmodified name.
The Italian sample will be compared with the S&P 500 sample, composed by delisted firms which constituted the S&P 500 Index until the day before the removal. The reason why it has been thought to use as benchmark this particular sample is because it is considered to deliver the most appropriate snapshot of the US market, since this index groups the largest 500 equities traded on the New York Stock Exchange. US capital markets have a different shareholders’ composition with respect to the Italian environment, since the floating is larger, as well as the presence of a widespread shareholder base. The reason cannot be found only in the legislative framework, which is different for public companies between these two countries, but also, for example, in the history. In fact, while Italy, together with most of the other Continental European countries, have been characterized by the presence of businesses owned by rich families since the creation of limited liability companies, the United States, though they were not the first developers of public companies and stock exchanges, have always had a widespread ownership prevalence, also given by the fast development of capital markets and their characteristics.\textsuperscript{100}

Regarding the time horizon object of study, I selected a 5-years interval that goes from 2006 to 2010. The rationale which led to this particular window is represented by the will to include in the sample both the period prior to the crisis and the years affected by the world financial crisis. Considering a time horizon from 2007 or 2008 would have meant to bias the analysis, given the fact that firms’ performances and removals from the exchanges could have led by the ongoing crisis and by external causes to the company. On the other hand, taking into account for the samples just years prior to the financial crisis could have meant developing an empirical analysis which would have

\textsuperscript{100} Toninelli, 2006, Storia dell’impresa, il Mulino, Bologna.
not highlighted at all the effects of the crisis, which would be considered as the leitmotiv of these last years.

As noted above in this paragraph, the samples are constituted by all the firms in the respective markets, Mibtel and FTSE Italia All-Share regarding the Italian pattern and S&P 500 Index for the homonymous sample. The reason behind the choice of two indices for Italy is given by the fact that the FTSE Italia All-Share substituted the former Mibtel in 2009, due to the change in ownership in the exchange listing, Borsa Italiana S.p.A., which has been included in the London Stock Exchange Group plc from the same year. The total number of firms is respectively equal to 50 and 71. Comparing the number of delisted companies with the total number of firms in both the markets is clearly observable the increasing relevance of the phenomenon during the recent years: the percentage is, in fact, equal to 14.20% for the S&P 500 sample, while, looking at the Italian group, since the number of components can vary properly due, for example, to firms’ removals, assuming a total number of 212, which is the current number of components, the portion of voluntary delisted firms is equal to 23.58%. In both cases the percentage is significantly high, even more if, in the Italian market, the number of delistings is compared with the number of IPOs for the same time horizon, which is equal to 68 and 5 companies among them have been voluntary delisted during the sampling period.

Data regarding fundamentals and stock price returns have been downloaded from Datastream, both for the Italian and the S&P 500 Index. Percentages of ownership at delisting public announcement have been taken from Bureau Van Dijk’s databases Osiris and Amadeus, together with Il Sole 24 Ore and its historical archive.
3.2 Descriptive Statistics

As it has been just reported in the last paragraph, the total number of delisted firms is 50 in Italy and 71 in the S&P 500 Index. The distribution across the considered time horizon can be observed in the table below.

<table>
<thead>
<tr>
<th>Sample</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTSE Italia All-Share</td>
<td>11</td>
<td>9</td>
<td>14</td>
<td>10</td>
<td>6</td>
<td>50</td>
</tr>
<tr>
<td>S&amp;P 500</td>
<td>18</td>
<td>24</td>
<td>11</td>
<td>8</td>
<td>10</td>
<td>71</td>
</tr>
</tbody>
</table>

Table 1: Voluntary delisted companies’ distribution across years.

It is easy to notice that the highest number of delistings has been experienced in both the samples in the first year of financial crisis. The recession, in fact, started in 2007 in the United States, when it has been begun to experience a relevant number of banks’ and financial services firms’ bail-outs by other companies operating in the financial sector through expensive and severe M&A deals, following the so called too-big-to-fail policy. The Italian sample, on the other hand, experienced the highest number of removals from trading the following year, the 2008, which can be considered the year when the financial crisis from US started to widespread to all the other parts of the world, including Continental Europe, and, hence, Italy.

Another important remark can be done upon this point, since the second highest number can be observed in 2006, when the financial crisis was not spread yet, not even in the United States. According to Bordo\(^{101}\), in fact, the first turmoil have been experienced in August 2007, where the freezing of the US lending market happened, while the second wave, where the crisis worsened, occurred in March 2008, when Bear Stearns was rescued. The investment bank was bailed-out through an M&A agreement with the

same company which led the rescue of the first severe financial crisis which affected US, and more specifically New York, in 1907: JP Morgan. Bear Stearns has been included in the S&P 500 sample and it is the one which experienced the largest negative abnormal return (-117.29%) in the considered event study window, which is [-3;+3] around the public announcement of the delisting.

On the wave of a paper written by Weir and Wright\textsuperscript{102}, which has been already taken in consideration in the first, this study will analyze what drives firms to be target in public-to-private transactions rather than M&A deals with already listed companies. In the table below it is easily noticeable the distribution among these two voluntary delisting typologies, which will lead to some first descriptive comments.

<table>
<thead>
<tr>
<th>Sample</th>
<th>PTP Transactions</th>
<th>M&amp;A with Listed Companies</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTSE Italia All-Share</td>
<td>33</td>
<td>17</td>
<td>50</td>
</tr>
<tr>
<td>S&amp;P 500</td>
<td>17</td>
<td>54</td>
<td>71</td>
</tr>
</tbody>
</table>

Table 2: Deal type distribution across samples.

As it is possible to see from the table above, two thirds of the Italian firms in the first sample went private throughout the considered time horizon, while the ratio is completely different regarding the S&P 500 Index sample. The reason why just less than one fourth (23.94%) of the firms in this sample went private may be explained by the large difference in terms of firms’ size among the two considered groups. In fact, while the average market value of the Italian firms is equal to €2.1 billion, the same value regarding the NYSE index for the largest companies is equal to $11.96 billion. It is, indeed, ceteris paribus, more likely to go private for firms which are smaller\textsuperscript{103}.

\textsuperscript{102} Weir, Wright, 2006, Governance and takeovers: are public-to-private transactions different from traditional acquisitions of listed corporations?, Accounting and Business Research 36, n°4, 289-307.

An additional comment regarding this argument can be done looking at the remaining 54 out of 71 US companies which have been targets for M&A transactions with listed companies. In fact, it is possible to observe that 39 companies out of these 54 continued to stay listed on the S&P 500 Index, notwithstanding the delisting. This may be driven by two explanations: the firm has been acquired by (or merged with) a former constituent of the same index; the resulting corporation from the M&A deal had a so large market capitalization to be included in the index. Obviously, in both cases, the delisted firm has been voluntary removed from the NYSE and it has been incorporated in another firm, so the identity of the issuer has been modified, as well as the ownership structure and the governance.

To better understand the distinction between the two kinds of transactions which have led these firms to continue to be traded again on the S&P 500 Index, one example for each situation can be reported. Bank of America, one of the largest financial services companies and S&P 500 Index constituent, acquired both Countrywide Financial Corporation and Merrill Lynch & Co. Inc., respectively in 2008 and 2009, incorporating them in its own balance sheet. The two target firms have been delisted from the NYSE but have not gone private, since the acquirer is still traded on the same exchange and it is an S&P 500 constituent too. Regarding the other situation, instead, the example can be made with the transaction among Black & Decker Corporation, which is in the sample for this empirical study, and The Stanley Works, occurred in 2010. The acquisition by the latter gave the resulting company the chance to be part of the largest firms’ index, though Stanley was not a former constituent. Currently, the firm is still traded on the S&P 500 Index under the name Stanley Black and Decker Inc. Thus, this second example highlighted how the acquirer was not included in the S&P 500 Index
before the transaction and, thanks to the deal with Black & Decker, started to be traded on the exchange together with the largest NYSE firms.

3.3 Research Methodologies

The analysis will be done looking at fundamentals and financial indicators which have been considered as relevant thanks to the existing literature upon the argument, as highlighted in the first chapter. Therefore, for all the steps of the analysis, both for the Italian and the US samples, data regarding Market-to-Book ratio, EV/EBITDA, Earnings Per Share, Price-Earnings ratio, Debt-to-Equity ratio, Dividend Yield, natural logarithm of Market Value and natural logarithm of Total Assets have been downloaded from Datastream. To deepen the analysis, lagged variables have been considered as well concerning all the fundamentals. In order to clarify this aspect, in the case of delisted companies, the year when the public announcement occurred has been marked as year 0, while the previous one as -1. Thus, all the lagged variables will refer to the previous financial year with respect to the delisting public announcement. There will be run several models, in order to isolate the significant variables, so finding the most appropriate to explain the delisting phenomenon.

Returns are considered in terms of Cumulative Abnormal Return, or CAR, around the delisting public announcement. I use a [-3; +3] daily window, since the [-30; +30] interval would have been very large and dispersed from the public announcement, while the [-1; +1] could have been consistent only assuming semi-strong efficient capital markets. Moreover, I took data regarding controlling shareholders’ ownership percentage at the moment of the delisting announcement concerning firms in the Italian sample to study their relationship with cumulative returns.
To conclude, in order to better understand the dynamics in practice, examples and insights relative to particular delisting transactions will be highlighted throughout the whole empirical study, as it has been done throughout the previous sections.

3.4 Models’ Formalization, Empirical Findings and Comments

3.4.1 Differences among Listed and Voluntary Delisted Firms - First Logit Model

The first model to develop is a Logit Model to highlight the differences between delisted and survived companies on the Italian market throughout the period that goes from 2006 to 2010. Regarding survived firms, each year each of them has been treated as a different company. The reason can be explained by the fact that it could have had no significant reasoning to arbitrarily, or even randomly, choose a specific year to consider for each of these firms. Due to lack of data concerning fundamentals, every time a vacancy in indicators regarding the survived firms has been noticed, that particular year, or that specific company in case of complete absence of data, has been deleted from the dataset. The total number of firms which have been considered for the sample of the still listed companies is equal to 105, with a total number of observations equal to 507. These observations will be compared to the 50 components of the Italian sample of delisted companies.

Since the study will be done through a Logit model, dependent and independent variables have to be defined. The dependent one \( (y_i) \), which is a binary variable, has value 0 whether the firm has been not delisted, while value 1 will be used to label the firms which have been voluntary removed from capital markets.
Independent variables \((x_i)\) are, instead, defined thanks to the existing literature highlighted in the first part of the work project\(^{104}\). The variables and their respective explanations are reported below:

**MTB** defines Market-to-Book Ratio and it calculates the ratio among market value and book value of equity. It will be used as a sign of undervaluation since, having lower relative MTB with respect to the rest of the firms in the market, means not to be able to communicate the market firm’s value;

**EV/EBITDA** denotes the ratio between Enterprise Value and Earnings Before Interests, Taxes, Depreciation and Amortization. It will be used as indicator for performance, since it allows giving a snapshot of firm’s value relative to the operating performance of the year in terms of EBITDA;

**EPS** stands for Earnings-Per-Share and it will be considered as a performance indicator as well. This value, in fact, gives the amount of Net Income per each number of shares issued by the equity;

**PE** is the acronym of Price-Earnings ratio. This indicator gives investors the relative price per share given firm’s EPS. A company with high PE ratio can be defined as a

growth stock, since it has higher relative stock price with respect to firm’s performance. On the other hand, a company with low PE ratio is called value stock;

D/E is used to identify Debt-to-Equity ratio, the most important capital structure indicator. It gives information about the relative amount of debt, given the value of the equity. Both values to take to construct this fundamental are market values, when a firm is traded on public listings;

DY identifies Dividend Yield, which is the ratio between the annual dividend per share and the price per share. It gives, in fact, how much a company pays out in terms of dividends referring to its share price;

ln MV denotes the natural logarithm of Market Value, which is used as a measure to control market value of equity. Entering the model absolute market values would have been not comfortable to deal with, since values would have been really high, given the average for the Italian sample is equal to € 2.1 billion;

ln TA stands, instead, for the natural logarithm of Total Assets, which is another measure of size. The reason why it has been used again the logarithm is the same as the previous: the value of total assets is, generally, even larger than market value of equity;

lgd is the label used for lagged variables, indicators which refer to the year prior to the delisting public announcement. Lagged variables are available for all the considered fundamentals.

Following the rationale of a logistic regression, the probability of a firm to be voluntary delisted, for example, is equal to the expected value that a firm is involved in the same transaction given the dependent variables. Therefore, the general model estimated,
considering in this case only the variables regarding the delisting announcement year, is:

\[ y_i = \beta_0 + \beta_1 MTB_i + \beta_2 EV/EBITDA_i + \beta_3 EPS_i + \beta_4 PE_i + \beta_5 D/E_i + \beta_6 DY_i + \beta_7 \ln MV_i + \beta_8 \ln TA_i \]

Regarding the hypothesis upon this Logit model, referring to the first section where the existing literature has been deeply analyzed, it is possible to state that it is expected delisted firms to be smaller in terms of size, to have lower Market-to-Book ratio, to be less profitable in terms of EV/EBITDA, and to be more leveraged, given the high percentage of LBOs during the last decade. The other variables, especially the lagged ones, have been entered in the model to have a clearer snapshot of the phenomenon, which cannot be easily explained just looking at the indicators accounted during year where the public announcement of delisting occurred.

In order to have a clearer view of the most relevant variables that set this difference, several models have been run, each time changing dependent variables: the first (Model 1 in the table below) considers only those variables concerning the year of public announcement; Model 2, on the other hand, highlights the difference among the firms regarding lagged variables; finally, Model 3 takes just one variable among actual and lagged looking at the z values highlighted in the previous models, picking each time the one with the highest value.

The table below shows the results in terms of coefficients, while in brackets z values have been highlighted. The stars next to the brackets are useful to understand the
significance level: * means that the result is significant at the 10% level; ** means that it is significant at the 5% level; *** shows significance at the 1% level.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTB</td>
<td>-1.44</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(-0.63)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EV/EBITDA</td>
<td>.013</td>
<td>.007</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2.25)**</td>
<td>(1.26)</td>
<td></td>
</tr>
<tr>
<td>EPS</td>
<td>-0.97</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(-1.98)**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PE</td>
<td>-0.005</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(-0.97)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D/E</td>
<td>.090</td>
<td>.128</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.60)</td>
<td>(2.40)**</td>
<td></td>
</tr>
<tr>
<td>DY</td>
<td>.097</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2.01)**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ln MV</td>
<td>.287</td>
<td>1.273</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.40)</td>
<td>(1.82)*</td>
<td></td>
</tr>
<tr>
<td>ln TA</td>
<td>-0.418</td>
<td>-1.566</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(-0.67)</td>
<td>(-2.47)**</td>
<td></td>
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<tr>
<td>MTB lgd</td>
<td>-0.430</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>(-1.68)*</td>
<td>(-1.73)*</td>
<td></td>
</tr>
<tr>
<td>EV/EBITDA lgd</td>
<td>.008</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>(0.90)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EPS lgd</td>
<td>-1.053</td>
<td>-1.105</td>
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</tr>
<tr>
<td></td>
<td>(-2.24)**</td>
<td>(-2.29)**</td>
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<td>PE lgd</td>
<td>-0.002</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(-0.58)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D/E lgd</td>
<td>.004</td>
<td>.004</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(3.08)***</td>
<td>(3.45)***</td>
<td></td>
</tr>
<tr>
<td>DY lgd</td>
<td>.011</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.17)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ln MV lgd</td>
<td>1.583</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1.68)*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ln TA lgd</td>
<td>-1.856</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(-2.10)**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Log Likelihood</td>
<td>-154.06</td>
<td>-147.47</td>
<td>-145.46</td>
</tr>
<tr>
<td>N. Observations</td>
<td>557</td>
<td>557</td>
<td>557</td>
</tr>
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</table>

Table 3: Logit Model on the Italian market between voluntary delisted and still traded firms.

The results show that there are some variables which clearly give the investors an insight on firms’ decisions to voluntary remove from listing in the Italian market. Running a logistic regression taking in account both actual and lagged variables together, the model does not give a deep understanding on what drives firms to delist themselves, due to the fact that there has been included too many variables. There are,
in fact, just three significant variables, all of them at the 10% level: DY and D/E lagged, with a positive coefficient, while EPS lagged is negative. These three variables have been included in Model 4 too, experiencing a huge increasing in terms of significance for the analysis, since DY and EPS lagged are significant at the 5% level, while D/E lagged is even more significant, with its z equal to 3.45.

Starting to comment these findings, it is possible to say that delisted companies are more likely to have a leveraged capital structure in the year prior to the public announcement of removal from exchanges. This value is consistent with the cases experienced in reality, since it is known that a significant portion of going-private transactions are done by Private Equity firms through Leverage Buy-Outs. In this particular sample, it is not possible to find out each kind of transaction to understand whether it was a LBO rather than a simple transaction with cash, but it is important to underline the high number of deals carried by Private Equities, 11. As already mentioned in the first chapter, these kinds of firms have a relevant role in public-to-private transactions, even in an environment characterized by family businesses and high percentage of controlling shareholders. What happens, in fact, sometimes, is that a Private Equity company accords with insiders, controlling shareholders or management of a target firm to carry on the deal without having any kind of drawbacks by them.

The reason why EPS lagged is negatively correlated with the likelihood to be delisted can be found in underperformance. Firms which are voluntary removed from the Italian market are worse performing than the survived ones. This would be a motivation for opting to look for alternatives: going-private or being involved into an M&A deal with some other public firms. Both procedures lead to voluntary delisting, but in the
following sections eventual differences among delisted firms will be highlighted. Related to performance, variables regarding EV/EBITDA could be counted as well, but both actual and lagged variables do not give a significant result, except from Model 1. In any case coefficients are positive, which would drive to a discordant conclusion than the one derived by EPS. But, due to low z values, this variable, together with PE ratios, cannot be considered.

The model shows that delisted firms are more likely to have higher Dividend Yields. This indicator, which allows the investors to understand how much dividends have been paid with respect to the share price, reveals that delisted firms pay higher dividends, relative to their share prices, than survived firms. The reason can be found in the will to remunerate shareholders before it is too late, given that the considered year is the last one on the stock exchange before the delisting.

The other variables to focus on are those included in Model 3, the one which gives brighter insights of the drivers that lead to voluntary delisting in Italy. As it is possible to observe, Market Value and Total Assets moves to opposite direction: delisted firms are more likely to have higher market capitalization and lower total assets during the year of public announcement of removal from exchange. The first variable can be explained by the high CAR shareholders experience due to the announcement, while the second is consistent with the hypothesis that firms which opt to voluntary remove themselves from listing are smaller than the survived ones. The hypothesis regarding undervaluation is verified as well, given that Market-to-Book ratio’s coefficient of the lagged variable is negative and significant: this means that delisted firms have relatively a lower MTB ratio than survived companies.
3.4.2 Regression on Cumulative Abnormal Return

The second step in this empirical study concerns in finding a relationship between CAR and percentage of ownership by Controlling Shareholders at the public announcement of delisting. The interest towards this issue derives from the impulse to give this paper more an individual investor’s and, so, minority shareholder’s perspective, rather than looking at data from an external point of view. Finding a significant relationship between CAR and ownership by Controlling Shareholders would mean give individual investors relevant insights on the delisting phenomenon, since it would be possible to understand whether they could earn more, or less, around the public announcement of delisting, given the ownership structure of the firm they invested in.

I decided to run this regression just studying the Italian market because it would have been not significant to enlarge it to the S&P 500 sample. The reason behind it can be explained by the fact that Italian market’s conformation in terms of ownership is clearly different from the US one, especially the S&P 500 Index, and more consistent with the study. A market characterized by family businesses and high percentage of ownership by controlling shareholders as Italy is the ideal one to develop this model. It has been very difficult to find out ownership percentages, therefore, all the firms whose data were not available have been removed from the sample. Thus, the final number of observations for this step in the analysis is equal to 42.

Since the study will focus on shareholders’ returns, these have been calculated in terms of Cumulative Abnormal Return, or CAR, considering a [-3; +3] daily window around the delisting public announcement. In order to construct daily abnormal returns, the first stage has been the expected return estimation. To construct the return, according to the
CAPM formula, betas have been calculated for all the firms in the samples, as well as market returns and risk-free rates for the whole period. Regarding betas, I used 3 years of daily data until the beginning of the year characterized by the public announcement. In this way, beta estimations have been not biased by delisting opportunities. However, since not all the firms in both the samples have had at least 3 years of life on capital markets before the delisting announcement, for the relative “youngest” firms the whole available trading window on public exchanges before the announcement has been considered. It is important to highlight that 10 firms in the Italian sample (25%) have been delisted with less than 3 years of life as public firm, while just one company, Realogy Inc., has this particular characteristic in the S&P 500 Index sample. This finding is consistent with the existing literature pointed out in the first chapter, since, nowadays, increasing numbers of firms decide to delist despite the relative small number of years on capital markets.

Once plugged everything in the CAPM formula and, so, found out the daily expected returns in the event study window for each firm, these values have been subtracted to the actual return taken from Datastream, in order to derive the abnormal return. Subsequently, the CAR is just equal to the sum of all the daily considered abnormal returns.

After having defined the abnormal return’s derivation, now the focus passes on the model to develop, which is a multiple linear regression. The dependent variable \( y_i \) is constituted by the just explained CAR. The independent variables \( x_i \), instead, are identified by:
CONTROWN, which stands for Ownership held by Controlling Shareholders at the delisting public announcement;

A set of control variables, in order to monitor the model for size, performance and capital structure. Therefore, Market-to-Book ratio, EV/EBITDA, Debt-to-Equity ratio, natural logarithm of Market Value and natural logarithm of Total Assets have been added to the model.

So, the formalization for this multiple linear regression model can be defined as follows:

\[ y_i = \alpha + \beta_1 \text{CONTROWN}_i + \beta_2 \text{MTB}_i + \beta_3 \text{EV/EBITDA}_i + \beta_4 \text{D/E}_i + \beta_5 \ln \text{MV}_i \\
+ \beta_6 \ln \text{TA}_i + \epsilon \]

The hypothesis to support in this section is the negative relationship between the return for the minorities and the percentage of ownership in controlling shareholders’ hands. I expect minorities to be negatively affected in terms of abnormal returns, ceteris paribus, as the percentage owned by majorities’ increases. The reason can be explained by the lower chance by minorities to impede the delisting transaction, since controlling shareholders, as their ownership increases, encounter fewer obstacles, due to their significant presence, in terms of vote, both in the general meeting and in the board of directors.

The table below shows the results of the regression on the CAR.
From a first look at the table, it is possible to observe that the hypothesis has been verified, since there is a negative relationship between Cumulative Abnormal Return and the percentage of ownership by Controlling Shareholders before the public announcement of voluntary delisting. P-value and the t-statistic even underline the significance of the model. This result gives relevant implications for minority shareholders, to better understand and even predict the range of their premium in case of public announcement of delisting: the more the majorities and insiders hold in their hands in terms of ownership, the less the shareholders gain from delisting. In the last sentence the term “minorities” has not been used because the CAR is equal to all the shareholders, despite the fact the minorities are expropriated by the right to gain future returns in case they opt to sell their shares to the majority, in case of going-private transactions. When voluntary delisting is, instead, led by an M&A deal with a public company, minorities do not have to liquidate their position, since the company will be still traded though under a different form, but they have to agree to the terms in the form

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficient</th>
<th>t-statistic</th>
<th>p-value</th>
<th>Standard Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONTROWN</td>
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<td>-2.59</td>
<td>0.014</td>
<td>.0557862</td>
</tr>
<tr>
<td>MTB</td>
<td>-.002</td>
<td>-0.14</td>
<td>0.887</td>
<td>.0114676</td>
</tr>
<tr>
<td>EV/EBITDA</td>
<td>.000</td>
<td>1.58</td>
<td>0.124</td>
<td>.0001342</td>
</tr>
<tr>
<td>D/E</td>
<td>-.000</td>
<td>-1.75</td>
<td>0.089</td>
<td>.0000679</td>
</tr>
<tr>
<td>ln MV</td>
<td>-.046</td>
<td>-0.94</td>
<td>0.355</td>
<td>.0486245</td>
</tr>
<tr>
<td>ln TA</td>
<td>.035</td>
<td>0.84</td>
<td>0.409</td>
<td>.0421427</td>
</tr>
<tr>
<td>Intercept</td>
<td>.127</td>
<td>0.86</td>
<td>0.397</td>
<td>.1483859</td>
</tr>
<tr>
<td>R-Squared</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>N.Observations</td>
<td>42</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4: Regression on CAR for the Italian sample.
of exchange ratio, otherwise they should exit the company selling the shares on the market.

All the other variables, included in the model as controls, do not give any additional remark to make, since their t-statistics and p-values are not statistically significant, except from Debt-to-Equity ratio, even if its coefficient is very low (-.0001189). However, it is not surprising that there is negative relationship between CAR and D/E, because this means that the more a company is leveraged, the less its shareholders gain from the public announcement of delisting.

3.4.3 Comparing CAARs among the Samples

The third step of the empirical study is constituted by a comparison in terms of CAAR, which is the average of Cumulative Abnormal Returns, between the Italian and the S&P 500 samples. It is true that these two samples are taken from completely different environments, but this comparison is still useful to understand the difference among them, for example, in terms of market efficiency and players in the market. Knowing that these two markets have significant differences, which can be quickly summarized again in ownership base and floating shares on the market, as well as the firms’ size of the constituents, it is expected a higher CAAR for S&P 500 companies rather than the Italian ones. Moreover, focusing on the daily CAAR’s distribution throughout the considered daily window, there will be a constant compare and contrast even upon market reactions around the public announcement date.

The table below summarizes the distribution in terms of Average Abnormal Returns, on the left of each sample, in the window [-3; +3] around the public announcement of delisting. In the right-hand columns, it is possible to find the Cumulative Average
Abnormal Returns, calculated as the sum of the previous days’ CAAR with the return noticed on the same day.

<table>
<thead>
<tr>
<th>t</th>
<th>Italian Sample</th>
<th>S&amp;P 500 Index Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AAR</td>
<td>CAAR</td>
</tr>
<tr>
<td>-3</td>
<td>0.005174</td>
<td>0.005174</td>
</tr>
<tr>
<td>-2</td>
<td>0.015213</td>
<td>0.020387</td>
</tr>
<tr>
<td>-1</td>
<td>0.014376</td>
<td>0.034762</td>
</tr>
<tr>
<td>0</td>
<td>0.053347</td>
<td>0.088109</td>
</tr>
<tr>
<td>1</td>
<td>0.011858</td>
<td>0.099967</td>
</tr>
<tr>
<td>2</td>
<td>0.001275</td>
<td>0.101241</td>
</tr>
<tr>
<td>3</td>
<td>0.004035</td>
<td><strong>0.105276</strong></td>
</tr>
</tbody>
</table>

Table 3: Average Abnormal and Cumulative Average Abnormal Returns' distribution across time.

The first values which capture the attention are the CAAR for the whole 7-days interval around the public announcement: 10.53% for the Italian sample and 15.10% for the S&P 500 Index sample. The gap among these two markets is extremely high, since the second exceeds the first by 43.44%. Recalling the hypothesis stated in the previous sections, an evident difference among the two samples in favor of the US market has been noticed and verified. This gap can be attributed by several factors. The first to highlight is the ownership structure of the firms throughout the two samples. As already mentioned above, Italian firms are businesses led by families or large controlling shareholders and the previous regression verified how companies with large ownerships in the hands of few people lead to lower CAAR for the whole shareholder base. In US, especially in the S&P 500 Index, the situation is different, since it is less likely to find family businesses or, at least, companies led by blockholders which exploit their bargaining power to give minority shareholders a lower reward when it is decided for delist the firm.
Looking at several publications on delisting, which have been focused more on public-to-private transactions than general voluntary removal from the exchange listing, it is possible to see that all the authors have noted a higher premium for these deals, also given by a larger event-study window. De Angelo, De Angelo and Rice\textsuperscript{105}, in their work on delisting and minority freeze-outs, used a 10 days anticipation window, verifying a premium to shareholders, in terms of CAAR, equal to 28.05\%. The same can be found looking at another publication, this time by Lehn and Poulsen\textsuperscript{106}, which, analyzing an equal-length window to the previous authors, noted a CAAR equal to 19.3\%. Different event study windows lead to different results. A particular focus on public-to-private transaction will be done in the following section, in order to better understand the CAAR difference with the literature, which, however, can be explained not only by a matter of event study window, but also by the different periods considered. It has to be considered that this study has taken in account delisting transactions during a tough time for capital markets, probably even more for the US than for Italy. The samples, in fact, included several companies which experienced large decreases, in terms of performance as well as stock prices and CAR around the delisting announcement. One of them can be the already cited investment bank Bear Stearns, which was sold and bailout by JP Morgan. In March 2008, when it was announced the delisting procedure with the consequent purchase by JP Morgan, shareholders experienced an extremely negative CAR, equal to -117.29\%, with an abnormal return of -82.8\% just on the day of announcement (t=0). If, in fact, Bear Stearns and all the other firms which have experienced a negative CAR had been excluded from the sample, then the gap with

respect to the Italian sample would have been even higher: the resulting CAAR for the S&P 500 Index sample would have reached up to 17.82%.

![Figure 1: Average Abnormal Returns’ distribution across time.](image)

Focusing now on the Average Abnormal Returns’ distribution and comparing the two samples, it is clear the difference in terms of market efficiency among the two markets. While, in fact, in the Italian sample before the announcement one third of the CAAR was already gained (to be precise 33.02%), the concentration for the second sample is quite irrelevant, since the CAAR before the announcement is just equal to 1.16%, 7.69% of the 7-days window CAAR. The only possible explanation of this phenomenon is investors’, or, to better say, insider investors’ prior knowledge about the transaction. US market clearly represents an example of semi-strong form of market efficiency, given the immediate shift and adjustment once the information comes out. On the other hand, in the Italian market, as it is possible to see from the graph, the information has been escaped before the public announcement. This does not mean that there is any kind of forms of insider trading, but maybe there is a higher security leak in Italy than in US, which leads the stock price to go up even before the public announcement.
3.4.4 Comparing PTP Transactions with M&As with Listed Companies - Second Logit Model and CAARs Hypothesis Testing

The study regarding the last step in the analysis will be conducted for both the samples. Two different Logit models will be developed, one for each country, in order to understand the differences among firms that are subjected to public-to-private transactions and firms which have been incorporated through M&A deals in already public companies, on the wave of the study by Weir and Wright. Furthermore, there will be included a hypothesis testing on the mean difference among subsamples to test whether shareholders gain different CAARs related to the delisting typology.

The independent variables are the same as the ones highlighted in the research methodology paragraph, together with the lagged. The implementation of this step is based on the above cited publication, but the variables which have been considered are different, in order to have insights on financial and performance indicators, rather than governance and ownership structure. I thought not to include ownership variables because it could have led to not significant results regarding the S&P 500 sample, since the shareholder based is largely dispersed and the percentage of insiders is lower than in Italy. As just mentioned above, the models will be developed both for the Italian and the S&P 500 samples: in both cases, regarding the dependent variable \( y_i \), going-private companies will have value 1, while value 0 will be assigned to those acquired, or merged, with already public firms. Concerning the independent ones \( x_i \), since they are the same fundamentals as the first Logit Model described earlier in this section, their description, as well as the formalization of the model, is referred above.

\[ ^{107} \text{Weir, Wright, 2006, Governance and takeovers: are public-to-private transactions different from traditional acquisitions of listed corporations?, Accounting and Business Research 36, n°4, 289-307.} \]
Concerning the hypothesis for this section, size is expected to be smaller for firms which have been taken private, given the eventual higher difficulty to exit the market for larger caps. Regarding valuation, instead, acquisition targets for already listed firms are expected to have higher Market-to-Book ratio than future private companies, since it is known that firms are taken out of public markets by Private Equities, their own management or controlling shareholders, to exploit eventual undervaluation. Capital structure is another crucial point, since most of the public-to-private deals are carried on through Leverage Buy-Outs. This kind of transaction can be implemented just when the target firm is a good LBO candidate. In order to be so, a company should have a stable stream of cash flows together with high debt capacity. Therefore, it is expected a change in Debt-to-Equity ratios among the two considered years: going-private companies would have relatively more leveraged structures on the year of public announcement of delisting than the previous year. Of course, this would happen just when the public-to-private deal through LBO starts during the year of public announcement.

As happened during the development of the first Logit Model of this empirical study, in this case different versions of the same model will be run. In the first attempt (Model 1 in the table below) variables regarding the year of public announcement of delisting will be considered, while, in Model 2, only lagged variables will be included, to study the eventual difference among indicators through these two years. The third model, to conclude, will pick the most relevant variables in terms of statistical significance, in order to find out a more correct framework.
The first table below, with relative analysis and comments, regards the Italian sample. Then, it will be inserted the same model for the S&P 500 Index sample which will be followed by a brief discussion about comparisons and contrasts among the two samples.

The stars, as in the first Logit Model, represent statistical significance: * means that the result is significant at the 10% level; ** means that it is significant at the 5% level; *** shows significance at the 1% level.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTB</td>
<td>1.431</td>
<td>1.446</td>
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</tr>
<tr>
<td></td>
<td>(2.15)**</td>
<td>(2.16)**</td>
<td></td>
</tr>
<tr>
<td>EV/EBITDA</td>
<td>-.004</td>
<td>-.003</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(-.45)</td>
<td>(-0.82)</td>
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</tr>
<tr>
<td>EPS</td>
<td>.069</td>
<td>-.077</td>
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<tr>
<td></td>
<td>(0.07)</td>
<td>(-2.24)**</td>
<td></td>
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<tr>
<td>PE</td>
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<td>-.077</td>
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<tr>
<td></td>
<td>(-2.22)**</td>
<td>(-2.33)**</td>
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<td>D/E</td>
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<td>-.003</td>
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</tr>
<tr>
<td></td>
<td>(-1.20)</td>
<td>(-0.82)</td>
<td></td>
</tr>
<tr>
<td>DY</td>
<td>-.433</td>
<td>-.431</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(-2.30)**</td>
<td>(-2.33)**</td>
<td></td>
</tr>
<tr>
<td>ln MV</td>
<td>-5.922</td>
<td>-5.999</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(-2.39)**</td>
<td>(-2.40)**</td>
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</tr>
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<td></td>
<td>(1.92)*</td>
<td>(1.96)**</td>
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<td>MTB lgd</td>
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<td>(0.76)</td>
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<td>(-1.38)</td>
<td>(0.50)</td>
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<tr>
<td>EPS lgd</td>
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<td>-.001</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(-0.01)</td>
<td>(1.75)*</td>
<td></td>
</tr>
<tr>
<td>PE lgd</td>
<td>.001</td>
<td>.001</td>
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</tr>
<tr>
<td></td>
<td>(1.75)*</td>
<td>(-0.45)</td>
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</tr>
<tr>
<td>D/E lgd</td>
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<td>-.564</td>
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</tr>
<tr>
<td></td>
<td>(-2.30)**</td>
<td>(-2.30)**</td>
<td></td>
</tr>
<tr>
<td>DY lgd</td>
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<td>-1.351</td>
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</tr>
<tr>
<td></td>
<td>(-0.83)</td>
<td>(-0.83)</td>
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</tr>
<tr>
<td>ln MV lgd</td>
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<td>.118</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.09)</td>
<td>(0.09)</td>
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</tr>
<tr>
<td>ln TA lgd</td>
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<td>-19.82</td>
<td>-19.82</td>
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</tr>
<tr>
<td>N. Observations</td>
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<td>50</td>
</tr>
</tbody>
</table>

Table 4: Logit Model on the Italian sample regarding the difference between firms involved in Public-to-Private transactions and acquired by already listed companies.
While performance indicators like EV/EBITDA and EPS are not statistically significant in this case, reflecting a non-consistently different path in terms of performance considering the last two years before delisting, firms involved in public-to-private transactions are more likely to have lower Price-Earnings ratio and Dividend Yield. A constantly lower DY with negative and statistically significant coefficient, even regarding the lagged variable, represents lower relative dividend payments during the last two years. On the other hand, a lower PE ratio leads the investors to expect lower earnings’ growth in the future. It is very important to highlight the correlation in sign among these two coefficients, since, in a study conducted by Crestmont Research on the S&P 500 Index, it has been verified a strong inverse relationship among these two variables: PE valuation negatively affects DYs, conversely as experienced in the current study on Italian delisted firms.

The last two remarks about this study on the Italian sample concern valuation and size issues. Recalling the hypothesis in the previous section, I expected going-private firms to be smaller and relatively more undervalued than companies involved in deals with public firms. Looking at the variable natural logarithm of Market Value, the negative and statistically significant coefficient highlights a smaller size in terms of market cap for going-private companies. This result, however, is not consistent with other two variables, since the natural logarithm of Total Assets and the Market-to-Book ratio are more likely to be larger in the case of firms involved in public-to-private transactions. This means that equity is more valuable in the case of going-private companies, but, at the same time, the inverse relationship among MV and TA may lead to think about

undervaluation. For the misleading results upon this last finding, it is not possible to have a clear point of view about undervaluation.

Once analyzed the Italian sample and having highlighted the differences among its subsamples, the focus now passes on the S&P 500 Index. The study will be implemented in the same way. The table below summarizes the findings for the S&P 500 Index sample.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1</th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTB</td>
<td>-.171</td>
<td>(-1.27)</td>
</tr>
<tr>
<td>EV/EBITDA</td>
<td>.016</td>
<td>(0.23)</td>
</tr>
<tr>
<td>EPS</td>
<td>-.045</td>
<td>(-0.27)</td>
</tr>
<tr>
<td>PE</td>
<td>-.022</td>
<td>(-1.05)</td>
</tr>
<tr>
<td>D/E</td>
<td>.001</td>
<td>(0.65)</td>
</tr>
<tr>
<td>DY</td>
<td>-.116</td>
<td>(-0.55)</td>
</tr>
<tr>
<td>ln MV</td>
<td>2.042</td>
<td>(1.45)</td>
</tr>
<tr>
<td>ln TA</td>
<td>-2.248</td>
<td>(-1.77)*</td>
</tr>
<tr>
<td>MTB lgd</td>
<td>-.198</td>
<td>(-0.99)</td>
</tr>
<tr>
<td>EV/EBITDA lgd</td>
<td>-.018</td>
<td>(-0.58)</td>
</tr>
<tr>
<td>EPS lgd</td>
<td>.047</td>
<td>(0.22)</td>
</tr>
<tr>
<td>PE lgd</td>
<td>-.001</td>
<td>(-0.15)</td>
</tr>
<tr>
<td>D/E lgd</td>
<td>-.002</td>
<td>(-0.34)</td>
</tr>
<tr>
<td>DY lgd</td>
<td>.217</td>
<td>(0.88)</td>
</tr>
<tr>
<td>ln MV lgd</td>
<td>2.480</td>
<td>(1.32)</td>
</tr>
<tr>
<td>ln TA lgd</td>
<td>-2.834</td>
<td>(-1.66)*</td>
</tr>
<tr>
<td>Log. Likelihood</td>
<td>-34.86</td>
<td>-33.24</td>
</tr>
<tr>
<td>N. Observations</td>
<td>71</td>
<td>71</td>
</tr>
</tbody>
</table>

Table 5: Logit Model on the S&P 500 Index sample regarding the difference between firms involved in Public-to-Private transactions and acquired by already listed companies.
As easily possible to observe, the procedure has been modified with respect to the previous study on the Italian sample, due to different results in terms of statistical significance. It has been decided not to report any Model 3, since it would have made no sense to highlight results which were not significant and not able to give any additional remark.

In the light of the results, it is evident that, looking to the table above, there is no clear difference in the chosen fundamentals between going-private companies and acquired ones by already public companies. The only note can be made on the variable regarding Total Assets, since in both the models it has been found that going-private companies are more likely to denote lower values in both the two years prior to the delisting. The reasons which have led to results like these, full of no evident differences among subsamples, can be given by the particular conformation of the S&P 500 Index and so the relative selected sample. Being constituted by the largest and also most active firms on the NYSE, it is very unlikely for a particular group of firms to clearly distinguish itself from one another, especially in performance, since constant underperformance, for instance, would mean, as a consequence, leaving the Index. The sample under study, in particular, is heterogeneously composed, presenting representatives of several sectors, for example consumers’ goods, pharmaceutical or information technology, in both the subsamples. The only exception is given by the banking sector, or, generally speaking, those firms which give financial services to their clients. These companies, in fact, given their relevance and exposure, together with the economic crisis ongoing in the considered period, have all merged or incorporated in already listed companies.
The clear differences in the empirical outcomes between the two samples may be not only driven by their respective environments. Some of the differences, indeed, may be led by subsample compositions. Recalling the Descriptive Statistics section, there was more equilibrium in the Italian Sample than in the S&P 500 Index, looking at the distribution: while approximately one third (to be precise 34%) of the Italian voluntary delisted firms was acquired by an already listed company, more than three fourth (76.06%) are the homologous in the S&P 500 sample. This can be led by the fact that size matters in distinguishing voluntary delistings: smaller firms are more likely to exit the capital markets than being acquired by a public company.

Finally, comparing subsamples on CAAR through a hypothesis testing on the difference between their respective means, it is possible to have deeper insights on shareholders’ reward in delisting transactions. Given the restricted number of observations in all the four subsamples, I used a t-test. The null hypothesis to reject was $\mu_a - \mu_b = 0$, where $\mu_a$ denoted CAARs related to PTP transactions and $\mu_b$ the average return shareholders experienced in M&A deals with listed companies. The alternative hypothesis is, instead, $\mu_a - \mu_b \neq 0$. So, the hypothesis testing formalization is the following:

$$
\begin{align*}
H_0 &: \mu_a - \mu_b = 0 \\
H_a &: \mu_a - \mu_b \neq 0
\end{align*}
$$

I expect to face a clear difference in terms of CAR among the two kinds of deals. Since shareholders would be expropriated by any right to own and easily trade their shares in case of a going-private transaction, I guess going-private firms’ shareholders to realize higher returns in the considered 7-day window around the public announcement of delisting than in case of M&A deals with already listed companies. As a matter of facts,
in these situations shareholders are almost always rewarded through exchange offers, so becoming stockholders of a “de facto” new firm.

Subsamples characteristics, in terms of CAAR and standard deviation, as well as empirical results are reported in the following tables.

<table>
<thead>
<tr>
<th>Deal Type</th>
<th>Number of Firms</th>
<th>CAAR</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Italy S&amp;P 500</td>
<td>Italy S&amp;P 500</td>
<td>Italy S&amp;P 500</td>
</tr>
<tr>
<td>PTP Transactions</td>
<td>33 17</td>
<td>0.124870 0.166741</td>
<td>0.084331 0.131745</td>
</tr>
<tr>
<td>M&amp;A with Listed Companies</td>
<td>17 54</td>
<td>0.067241 0.146062</td>
<td>0.040961 0.228052</td>
</tr>
</tbody>
</table>

Table 8: Number of Firms, CAAR and Standard Deviation per Deal Type across samples.

<table>
<thead>
<tr>
<th></th>
<th>t-statistic</th>
<th>Degrees of Freedom</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Italy</td>
<td>3.251147</td>
<td>52</td>
<td>0.001053</td>
</tr>
<tr>
<td>S&amp;P 500</td>
<td>0.464258</td>
<td>53</td>
<td>0.322289</td>
</tr>
</tbody>
</table>

Table 9: T-test Results on Subsamples to Confront CAARs.

Commenting the findings, it is possible to observe this clear difference in shareholders’ CAAR between the two groups regarding Italy, even without confront them with the hypothesis test. Going-private companies experienced, in the considered time-horizon, a higher CAAR (12.49%) than the remaining firms, almost doubling the result obtained for M&A deals with listed companies, just equal to 6.72%. In the US sample, instead, this difference is less visible, since the discrepancy between CAARs is approximately equal to 2% with high volatility, in terms of standard deviation, regarding both subsamples.

Comparing means of both subsamples through the hypothesis test on the difference between CAARs, the results are very interesting. Concerning the Italian sample, the large observed t-statistic (3.25), together with a p-value approximately equal to 0.001, highlights the gap between the subsamples, rejecting the null hypothesis and verifying
the expectations stated above. The same conclusion cannot be made upon the S&P 500 index sample, since, given a very low t-statistic (0.46), the hypothesis is not verified: there is no evidence in difference among subsamples’ CAARs.

To conclude, shareholders who invested in going-private Italian firms experienced a significantly higher reward compared to those who decided to invest in firms involved in M&A with listed companies, while, in US, this distinction cannot be done. The most relevant cause which led to higher CAARs for companies involved in public-to-private transactions is the fact that investors are remunerated for all the future dividend payments and additional gains they would lose, since the firm would be taken out of the capital market. On the other hand, M&A deals with public companies give target firm’s stockholders the possibility to continue to hold an investment in a public company, which is the result of the business combination.
Conclusions

This work project wanted to give a clear understanding of the voluntary delisting phenomenon. In order not to leave out the other removal typologies, which are constituted mainly by involuntary delistings and, indirectly, by the going-dark procedures, a general overview constituted by a literature review upon the argument has been presented in the first part. In this section, in fact, the most relevant factors which lead a firm to consider the going-private alternative have been carefully analyzed. Moreover, the attention has been focused also on the differences between companies involved in public-to-private transactions and those incorporated in listed firms. Size, costs of being listed, performance, growth and investment opportunities, together with the ownership structure, in terms of insiders’ participation in the firm, have been considered the most important drivers which lead a firm to go private. The differences among going-private procedures and M&As with public firms are mainly related to size, growth opportunities and, again, insiders’ concentration in target firms’ equity. In order to test literature’s findings on the Italian sample and to give further discussion elements about the above cited difference, an empirical study has been developed throughout the third part.

The second part of the work wanted, instead, to highlight minority shareholders’ powers and rights in voluntary delisting transactions. Through a comparison among US and EU frameworks, focusing the attention on some EU Members and US States to deepen the analysis throughout the section, different level of protection, together with different powers, can be observed in these regulations, which may lead to confusion and consequent harm in minorities’ investments. Moreover, the analysis also covered part of the UK regulation, which has been judged as the most developed in minorities’
protection by the literature. However, the study allows observing a minimum harmonization in minority shareholders’ rights and power in all the studied regulatory frameworks, where the main differences are mostly led by different countries’ traditions and conformation of the institutional environments.

The purpose of the empirical analysis, which constituted the core of the third and last section, was to observe voluntary delisted firms’ characteristics in terms of fundamentals and financial indicators in Italy, comparing findings and results with removed companies from S&P 500 Index. To study this phenomenon, I took data from 2006 to 2010, finding 50 voluntary delisted firms from Borsa Italiana, the Italian stock exchange, and 71 from the S&P 500 Index. The existing literature upon this subject has always focused the attention more on US and UK markets, due to the higher economic interests and the conformation of the environment, than on Continental European countries. Thus, comparing these two samples, I wanted to understand how markets’ characteristics conduct to different results. In the light of this, the most relevant evidences concern the differences between firms involved PTP transactions and those incorporated in listed companies: the lack of statistical significance both regarding fundamentals and CAAR hypothesis test reveals no substantial differences among delisted companies in the S&P 500 sample; on the other hand, the results regarding the Italian sample, verifying the majority of the stated hypothesis, highlight relevant insights. Going-private companies are smaller and experience higher and significant CARs than those entered in M&A agreements with listed firms, as if they wanted to reward their shareholders before it is too late.

Furthermore, focusing the attention on fundamentals regarding size, valuation and performance, I tested the observations from the Italian sample to find whether firms in
that country show the same features the existing literature underline. I found a greater likelihood of leveraged structure, underperformance, undervaluation and smaller size in delisted rather than still public firms. Moreover, another important objective I wanted to achieve developing this study was to try to find a relationship between CAR around the delisting public announcement and the percentage of ownership by controlling shareholders. Hypothesizing a negative relationship, the Italian sample confirmed that the more the majorities have in terms of ownership, the less the shareholder base gains from voluntary delisting.

Interesting cues for future researches, maintaining this structure of constant comparison between two different institutional environments, may be constituted by studying firms’ operational performance after voluntary delisting and comparing it with their expectations, in order to understand whether the choice to exit from capital markets has been the right one.
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