Department of Business and Management *Chair of Advanced Corporate Finance*

MINORITY SHAREHOLDERS AND EMPIRICAL EVIDENCES ON VOLUNTARY DELISTING PHENOMENON.

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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.

The work project follows a specific structure. In the first part, an overview on delisting phenomenon will be reported, highlighting typologies and drivers which lead firms to opt for removal, looking at the existing literature upon the argument. The second part will shift the attention to minority shareholders and their role in voluntary delisting transactions, stressing on EU, US and UK normative frameworks, comparing and contrasting their different levels of protection. In the third and last section, an empirical study will be developed, performing tests both for the Italian and the US markets. The objectives are constituted by the will to study what drives firms to voluntary delist from capital markets and what differs in firms' behavior and fundamentals between public-to-private transactions and M&A deals with listed corporations. Moreover, the relationship between ownership percentage in controlling shareholders' hands and cumulative returns around the delisting public announcement will be object of analysis.

OVERVIEW ON VOLUNTARY DELISTING

The expression Voluntary Delisting is used whenever a firm removed itself from an exchange listing, though it still has all the legislative requirements to be still traded on the public market. Regarding typologies, it is possible to have different way to voluntary delist a company. According to De Angelo, De Angelo and Rice (1984), the first way to delist from financial markets is incorporation: a firm can be incorporated into another firm's balance sheet after an acquisition. This operation can be done by a private or a public company. Whenever the acquirer is a private company, the target will be involved into a public-to-private (PTP) 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 not exist anymore because it would be incorporated into another company as before, but their assets would increase the value of the acquirer's equity. Another technique, besides incorporation, is 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 expressly constituted for taking the first out of the market. The last tool to focus on is the one which characterized the first M&A wave in 1980s and it has been the most used technique for voluntary delistings during that period (Geranio, Zanotti, 2006): the Leveraged Buy-Out. This is typically a PTP operation, mostly led by Private Equity firms. The total value of firms acquired through LBOs between 1970 and 2007 accounts for $3.6 trillion, where $2.7 have been capitalized only in the first seven years of the twenty-first century (World Economic Forum, 2008).

THE CHOICE BETWEEN STAYING PUBLIC AND GOING PRIVATE

The first evident signal for PTP transactions is firm's undervaluation (Geranio, Zanotti, 2006). Undervaluation may be mainly driven by lack of interest by the market, no matter firm's results, performance and future expectations. This leads to differences in value perception between outsiders and insiders (Goh et al., 2001): insiders are more aware of target firm's potential and future earnings growth, while, on the other hand, outsiders can just rely on public data or releases issued by the company. Moreover, the gap may be also led by managers' scarce capabilities in communicating the market firms' value creation.

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. Even if these costs, from disclosure obligations to investor relations, 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. From 2003, 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, experiencing a 71.19% increase just in one year (Carney, 2005).

Removal from capital markets may also constitute a way to hide from competitors, so acting without being monitored by them or the whole market in general. Listing requirements extremely expose all the public firms to everybody has interests in a specific company. Therefore, it may happen that, following a strategic rationale, a company would exit capital markets voluntarily to darken itself from the world market, so avoiding disclosing its financial data.

Another element to consider is the size of the firm, together with the portion of floating shares (Arbel, Strebel, 1982). Low floating transforms the liquidity advantage of staying public into an illiquidity issue. Although smaller firms tend to outperform the market (Fama, French, 1995), it is very difficult to find relevant and reliable information on them. Thus, institutional investors, such as pension funds, even if small caps shares are relatively cheaper with respect to larger ones, may not consider buying portions of these kinds of firms' equity.

Being on capital markets means for any company to construct 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 (Jensen, 1986). Changes in payout policies may face reluctance in the existing shareholder base, which may withdraw their investment and, as a consequence, lower company's share price. Thus, in order not to let the value of the company collapse, dividend payout policy, even if not as significantly as the previous factors, could induce firms to exit capital markets.

Evidences show that the number of firms which are exiting the market a few years later the IPO is increasing (Geranio, Zanotti, 2006). Short life as public firm may be driven by two motivations: the will to exploit a short-term bull market, exiting it once the favorable condition is over, and the awareness of having made the wrong choice listing on markets. In this last case, the IPO price is higher than the last reported price, generating a loss. On the other hand, when firms exploit an upward market, they are more likely to experience positive difference between the last and the IPO price.

Talking about going-private drawbacks, not being anymore on capital markets would mean to face higher relative difficulties in raising capitals for investments, since the firm is not anymore easy to control and monitor through its disclosure obligations.

Therefore, this translates into a higher firm's cost of capital (Bartlett III, 2008). Furthermore, PTP transactions lead to shares' illiquidity. Thus, shareholders may be forced to be owners of something they do not want to. This problem may affect both controlling and minority shareholders, but it harms minorities more than others, since they do not have any discretionary power. Some firms, in fact, in order to limit this potential drawback, give minorities the chance to trade shares on a predefined bargain basis to their broker (DLA Piper, 2009). The last point that can be relevant to raise is about operating performance after voluntary delisting. PTP transactions are also considered for exploiting growth investment opportunities, but evidences on Continental Europe throughout this last century underline the difficulty to achieve the purposed operational targets. In fact, empirical findings by Croci and Del Giudice (2014) do not report any substantial positive change in profitability, highlighting a relative stable operating performance after the removal.

WHAT DIFFERS M&A WITH LISTED COMPANIES FROM PTP TRANSACTION

There are several characteristics that are relevant to highlight regarding firms which are involved in going-private and still-listed transactions. In a publication by Weir and Wright (2006), the first paper in literature of this genre, the analysis covers both financial and governance factors. 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 would never decide to darken itself from capital markets going private.

However, the most relevant findings relative to this difference concern governance and ownership structure, rather than the financial point of view. PTP corporations, in fact, are more likely 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 means to be more aware of the real capabilities of the firms. For more concentrated management ownership firms, indeed, it is more likely to exploit PTP transactions through, for instance, MBOs, rather than sell the firm to a listed company, or merging with it, so losing the power in their hands.

THE OTHER WAYS TO DELIST A COMPANY: GOING-DARK AND INVOLUNTARY DELISTING

Going-dark transactions can be defined as those where a firm deregisters itself from the national securities commission and from the public listings, but continues to be traded on OTC markets (Leuz et al, 2008). The mechanism is very close to PTP transactions, but, once a company delists from the exchange, it will be 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 OTC markets are more developed than in other countries around the world. To pursue a going-dark transaction, since the aim is to deregister from the securities commission, a company has to analyze the requirements to be traded on markets and operate in order to have these values below their relative thresholds. Each normative code provides different requirements: in US, for instance, they are mainly related to size, in terms of total assets, and number of shareholders. Evidences notice a significant decrease in share price around the going-dark public announcement date (Marosi, Massoud, 2007). This supports the thesis that the shareholder base and the market does not sympathize for firms which are hiding themselves on the OTCs.

According to Leuz et al. (2008), the reasons why a firm decides to hide itself through this deregistration with subsequent trading on the deregulated markets can be grouped in two: cost savings and private benefits. The first set refers to the above discussion point about the listing costs' weight, which has become unbearable. Private benefits, instead, are related to the fact that insiders do not want to disclose financial data or maybe because the prospects are worse than what the market previously knew. Thus, going-dark tends to sharpen the asymmetric information which is present between insiders and outsiders. Looking at companies' characteristics, distressed firms with fewer valuable growth opportunities, higher leverage and lower market momentum are more likely to go dark, while, looking at the ownership side there is more likelihood to have higher insider ownership and lower institutional investors' participation (Marosi, Massoud, 2007).

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 being-listed 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.

Simultaneously analyzing Italian and US markets and their procedures for involuntary removals from trading, many differences can be highlighted, starting from the approach. Borsa Italiana uses a slower mechanism, since the removal is always preceded by a suspension, 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. Once suspended, CONSOB analyzes the possibility to remove the equity from exchange listing. The most important elements to consider for involuntary delisting are the lack of disclosure and release of financial and compulsory data, the involvement of the company in bankruptcy or insolvency proceeding, dissolution of the issuer and negative opinion by the independent institutional advisor for two consecutive years. Furthermore, trading volume, average stock price, volatility and ownership structure are analyzed over an 18-month time horizon. Switching to the NYSE approach, although there are similarities in the first step, the definition of candidates for removal, deepening the analysis, it is possible to notice a more quantitative approach than the Italian one. The parameters can be grouped so: financial conditions and operating results, where specific thresholds for total value of equity and consecutive years of loss are highlighted; trading and listing standards regarding number of shareholders and shares publicly traded. The procedure is different, since the NYSE provides a more interactive mechanism than Borsa Italiana. This is composed by two parts: in the first one, the target has to provide the exchange a plan where the reasons of non-maintenance requirements and valid solution are presented; the second part, instead, depends on plan's acceptance by NYSE. In case the exchange refuses the plan, the delisting proceeding starts promptly, otherwise, if there has been the plan's approval, the staff will examine and control on quarterly basis the company's performance, to verify the compliance with the plan.

Being involuntary 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, like going-dark. However, in this case, empirical evidences highlight that post-delisting stock price declined by approximately half on average, while bid-ask spread tripled and volatility doubled in percentage, with respect to the past performance on the NYSE (Macey et al, 2004). Looking at firms' characteristics, performance and size are the most relevant factors for distinguishing involuntary delisted firms from the others (Charitou et al, 2007), together with composition on the board of directors and the percentage of insider ownership (Morck et al, 1988).

MINORITY SHAREHOLDERS IN VOLUNTARY DELISTING TRANSACTIONS

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. Each normative code establishes its own measures concerning delisting, but, at least the European Member States, since the beginning of this century, have been experiencing a minimum harmonization thanks to the Takeover Directive by the European Union (2004/25/EC Directive). Despite of the research for a full coordination, there are still differences among Member States, due to difficulties and delays in implementation, or conscious room left by the EU to its members, that are leading to the undesirable result of not full alignment in the procedures (Van Der Elst, Van Den Steen, 2009). The implication is reflected into confusion and consequent harm in minority shareholders, which may face different levels of protection depending on the country. US, on the contrary, since it is a full federal system, is regulated both by federal and state laws. However, firms' distribution is not equivalent across States, since more than 50% of the public firms' totality and almost two third of the largest 500 are incorporated in Delaware. According to Black Jr. (2007), this state has one of the most flexible and advanced statute, a respected Court of Chancery, but also small and less intangible factors, such as the pro-business open-minded populace's mentality.

When a voluntary delisting transaction occurs, three classes of actors can be defined: the offeror, a company or an individual, target firm's directors and shareholders. This last class has to be divided in two, 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, in fact, may arise in the shareholder base given the typology of the offer: controlling shareholders may negotiate with the offeror to have higher returns from the transaction, not considering minorities at all, so letting them be rewarded with a lower amount per share than expected (Gilson, 2005); in two-tier tender offers financed by debt, 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 (Gilson, Kraakman, 1989). Moreover, there is no clear definition, from a normative perspective, on minority shareholders, a part from the pure numerical explanation (Wyckaert, Geens, 2008), 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. Thus, minorities can be, at the same time, an individual investor holding few shares, a pension fund holding 5% or a person holding 20% of the equity.

According to Mukwiri (2013), Takeover Law issued by the EU Commission has not the protection of minority shareholders as one of the main purposes, but this has been used just as a merely incidental instrument to the true objective, which is "facilitating EU-wide corporate restructuring". From his perspective, UK law gives a higher minority protection in this field. This country, in fact, is the latest which operated amendments to its company law to strengthen even more minorities' protection in case of delisting of a company (Allen, 2014), introducing independent directors' approval for voluntary removal, since the 75% of voting rights in the general meeting has been thought to be not sufficient to give full protection towards minorities. Furthermore, UK law provided for the first time in company law core elements like board neutrality and mandatory bids, so that its perspective has been considered shareholder-oriented (Johnston, 2004).

SQUEEZE-OUT AND SELL-OUT RIGHTS

Once controlling shareholders gain almost the totality of target's equity, it is possible for them to exercise the right to be the only shareholder of the corporation. This power has different names: freeze-out, squeeze-out or sell-out rights. Basically, the definitions of these three typologies 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" (Lynch, 1977). What changes between freeze-outs, squeeze-outs and sell-outs and let the first two differ from the last one is the perspective: if, in case of freeze-outs and squeeze-outs, controlling shareholders have an active role, having the chance to eliminate minorities, sell-out rights, oppositely, are in minorities' hands and let them push majority shareholders to purchase their portion of equity at a fair price (Babak, 2012).

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 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 probably did not want to (Brudney, 1975). Therefore, in order not to hurt minorities and to balance minority and majority shareholders' interests, the regulatory framework regarding freeze-out rights has been constantly improved.

According to Ferrarini et al. (2004), there are different reasons to exercise the right to eliminate minorities. These can be mainly related to the costs of being publicly traded, considered high and disproportioned when the ownership structure is clearly defined, free-rider behavior and minorities' opportunism. Regarding thresholds for squeeze-out rights, EU 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. In US, the percentage is fixed at 90% of total number of outstanding shares, as well as in UK.

Oppositely, concerning sell-outs, EU justified their introduction with 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 (European Commission, 2002). Therefore, the squeeze-outs' reverse right has to be in minorities' hands to prevent majority from extracting private benefits from the remaining stockholders (Burkart, Panunzi, 2003). In fact, EU refers to sell-out rights as the natural continuation of the tender offer period: minorities can use

them 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.

SAMPLES' CHARACTERISTICS AND DESCRIPTIVE STATISTICS

The Italian and the S&P 500 Index samples of firms that were delisted between 2006 and 2010 are constituted by 50 and 71 firms respectively. In both cases the number of delistings is very high, even more if, in the Italian market, this is compared with the number of IPOs for the same time horizon, equal to 68, and, among these, 5 companies voluntary delisted during the same period and are part of the sample under study.

Table 1 presents the number of delistings for each year in the sample. The highest number of delistings is experienced in both the samples in the first year of financial crisis. The recession, in fact, started in 2007 in the United States, while the Italian sample, on the other hand, experienced the highest number of removals from trading the following year, which can be considered the year when the financial crisis from US started to widespread to the rest of the world. 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 (2008), in fact, the first turmoil happened in August 2007, when the freezing of the US lending market occurred, while the second wave, when 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 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 CAR (-117.29%) in the considered event study window.

On the wave of the paper written by Weir and Wright (2006), I will analyze what drives firms to be target in PTP transactions rather than M&A deals with already listed companies. Table 2 presents the number of delistings from each type, which will lead to some first descriptive comments. Two thirds of the Italian firms went private during the sample period, while the distribution is completely different (23.94%) regarding the S&P 500 Index sample. This 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 US sample is equal to $11.96 billion. Thus, recalling the existing literature, smaller firms are more likely to go private (Geranio, Zanotti, 2006). An additional comment regarding this argument can be done looking at the remaining 54 companies in the US sample. In fact, it is possible to observe that 39 companies out of these 54 continued to be traded on the S&P 500 Index, notwithstanding the delisting. This may be driven by two explanations: the firm has been acquired by a former constituent of the same index; the resulting corporation from the M&A deal had a so large market capitalization to be included there as well.

RESEARCH METHODOLOGIES

In order to conduct a deep analysis of delisted firms' characteristics, I downloaded data from Datastream for all the observations 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 Total Assets. Moreover, I added lagged variables for all the fundamentals. They concern the previous financial year with respect to the delisting public announcement. I run several Logit models for each step of the study to isolate the significant variables, so finding the most appropriate ones to explain the phenomenon. Returns are considered in terms of 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 strongly efficient capital markets.

FIRST LOGIT MODEL

The first step to achieve is to develop a Logit Model highlighting the differences between delisted firms and survived companies on the Italian market throughout the considered time horizon. Regarding the survived firms, each year each of them has been treated as a different company. The number of listed firms is equal to 105, with a total number of observations equal to 507. I compare these to the 50 components in the Italian sample. Focusing on the hypothesis, referring to the existing literature, I expect the delisted firms to be smaller in terms of size, to have a lower Market-to-Book ratio, used as indicator for undervaluation, to be less profitable in terms of EV/EBITDA, and to be more leveraged. The other variables, especially the lagged ones, have been added

to have a clearer overview of the phenomenon. Table 3 presents the findings regarding the first logistic regression.

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. Delisted companies are more likely to have a leveraged capital structure in the year prior to the public announcement of removal from exchanges. In this particular sample, it is important to underline the high number of LBOs carried on by Private Equities, 11. Thus, they have a relevant role 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 to carry on the deal in order not to have any kind of drawbacks from them. The reason why lagged EPS has a negative and significant coefficient can be found in underperformance: firms which are voluntary removed from the Italian market are worse performing than the survived ones. Furthermore, the model shows that delisted firms are more likely to have higher Dividend Yields. The reason could be found in the will to remunerate shareholders before it is too late. The other variables to focus on are those included in Model 4, the one which gives a stronger insight on the drivers that lead to voluntary delisting in Italy. Market Value and Total Assets moves in opposite directions: 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 large CAR shareholders experience due to the delisting 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. To conclude, the hypothesis regarding undervaluation is verified as well, given that the Market-to-Book ratio's coefficient of the lagged variable is negative and significant.

Regression on Cumulative Abnormal Return

The purpose now is to find a relationship between CAR and percentage of ownership by controlling shareholders at the public announcement of delisting in the Italian sample. The interest towards this issue derives from the will to give this paper an individual investor's perspective, rather than looking at data from the perspective of an external viewer. The number of firms is 42, since I deleted from the existing sample the

companies whose ownership data were not available. The hypothesis to support concerns the negative relationship between CAR and the percentage of ownership in controlling shareholders' hands: investors would perceive lower CARs as the percentage owned by majorities' increases. I add some control variables, in particular those regarding size, performance, valuation and capital structure: Market-to-Book ratio, EV/EBITDA, D/E, natural logarithms of Market Value and Total Assets. Table 4 shows the results of the regression on the CAR.

Looking at the findings, the hypothesis has been verified, since there is negative relationship between CAR and controlling shareholders ownership at the delisting public announcement. P-value and the t-statistic even more underline variable's significance. This result gives relevant insights for minority shareholders, to better understand and even predict the range of their CAR in case of voluntary delisting: the more the majorities and insiders hold in their hands in terms of ownership, the less the shareholders gain from delisting. 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. 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. 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 transaction.

COMPARING CAARS AMONG THE SAMPLES

The third step in this study focuses on AAR and CAAR distributions in order to compare and contrast the two samples. I expect a higher CAAR for S&P 500 companies rather than the Italian ones, given their different institutional and ownership structures. Table 5 summarizes the distribution for each sample in terms of AAR, on the left-hand side, and CAAR, on the other side. The first values which capture the attention are the CAARs for the whole 7-days interval: 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%, verifying the hypothesis stated earlier above. This

gap can be attributed by several factors. The most relevant to highlight is the ownership composition: Italian firms are businesses led by families or large controlling shareholders and the previous regression verified how companies with larger ownership percentages lead to lower CAAR for the shareholder base.

Looking at several publications on the argument, which have been focused more on PTP transactions than including all the kinds of voluntary delisting, the authors noted a higher premium, also due to a larger event-study window. De Angelo, De Angelo and Rice (1984) used a 10 days anticipation window, verifying a premium to shareholders equal to 28.05%; Lehn and Poulsen (1989), analyzing an equal-length window to the previous authors, noted a CAAR equal to 19.30%: different event study windows lead to different results. It has to take into account that each analysis considers a different time horizon. I, in fact, considered 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 have experienced big losses, 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 acquired and bailout by JP Morgan. In March 2008, when the delisting procedure with consequent purchase by JP Morgan was announced, shareholders experienced a notable negative CAR (-117.29%), with an AR of -82.8% just on the day of announcement. If, in fact, Bear Stearns and all the other firms which experienced negative CARs had been excluded from the sample, then the gap with respect to the Italian sample would have been even larger: the resulting CAAR for the S&P 500 Index sample would have reached up to 17.82%.

Furthermore, one third of the whole CAAR has been already gained before the announcement in the Italian sample, while the percentage for the second sample is quite irrelevant, since it 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, insiders' prior knowledge about the transaction. The US market may represent, in this case, an example of semi-strong form of market efficiency, given the immediate shift and adjustment once the information comes out. This does not mean that there is any kind of forms of insider trading in Italy, but maybe there is a higher security leak in Italy than in US, which leads the stock price to go up before the public announcement.

SECOND LOGIT MODEL AND CAARS HYPOTHESIS TESTING

The second Logit Model to develop for the empirical study has the objective to give insights on which are the drivers to distinguish firms involved in PTP transactions to those which are acquisition targets for listed companies. The study will be led both for Italy and US. Concerning the hypothesis for this section, size is expected to be smaller for firms which have been taken private, recalling the existing literature. Acquisition targets for listed firms are expected to have higher Market-to-Book ratio than going-private companies, since it is known that firms are often taken out of public markets by Private Equities or insiders to mainly exploit undervaluation opportunities. Furthermore, I will compare CAARs from the same subsamples. I expect to find a clear difference in terms of CAAR among these two typologies, in favor of PTPs, and I will test this through a hypothesis test on the difference of the means.

Table 6 represents the models run on the Italian sample. Analyzing the findings, firms involved in PTPs are more likely to have lower Price-Earnings ratio and Dividend Yield. Correlation in sign among these variables is very interesting, given that several studies verify strong inverse relationship (Crestmont Research, 2014). Further remarks concern valuation and size. Looking at 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 both Total Assets and the Market-to-Book ratio are more likely to be larger in the case of firms involved in PTPs. 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 give a univocal conclusion 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. Table 7 summarizes the findings. It is evident that there are no clear differences in fundamentals and indicators between the two subsamples. The only note can be made on the variable regarding Total Assets, since in both the models I 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: being constituted by the largest and most active firms on the NYSE, it is very unlikely for a particular group of firms to clearly distinguish itself from another one, especially in performance, since constant underperformance, for instance, would mean to leave the Index. The sample under study, in particular, is heterogeneously composed, presenting representatives of several sectors: for example firms from consumers' goods, pharmaceutical or information technology industries, are present in both the subsamples. The only exception is given by financial services' firms. These companies, in fact, given their relevance and exposure, together with the economic crisis ongoing in the considered period, have been all incorporated in listed companies.

To conclude, comparing CAARs of both subsamples, through a t-test, as it is reported in Table 8 and 9, concerning the Italian sample, firms involved PTP transactions show a higher CAAR than the ones acquired by public companies, verifying the stated hypothesis. P-value is approximately equal to 0.001, so highlighting the gap between subsamples. Since, in case of PTPs, shareholders would be expropriated by the right to benefit from firm's future cash flows, they realize higher returns in the considered 7-day window. By contrast, in case of companies incorporated in listed firms, shareholders are almost always rewarded through exchange offers, so becoming stockholders of a "de facto" new firm. The same conclusion cannot be made upon the S&P 500 index sample, since, given a low t-statistic (0.46), the hypothesis is not verified: there is no evidence in difference among subsamples' CAARs, despite the fact, looking at the averages, PTP transactions rewarded almost 2% more than M&A deals with public companies.

CONCLUSIONS

This work project wanted to give a clear understanding of the voluntary delisting phenomenon. In the first part, 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 PTPs and M&As with public firms are mainly related to size, growth opportunities and, again, insiders' concentration in target firms' equity. The chapter has been completed discussing the other delisting typologies:

involuntary delisting and going-dark, analyzing again firms' characteristics and markets' reactions.

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, different level of protection can be observed in the codes, which may lead to confusion and 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.

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. 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 acquired by listed firms, as if they wanted to reward their shareholders before it is too late. Furthermore, testing observations from the Italian sample with survived firms, results are in line with the literature. I found greater likelihood of leveraged structure, underperformance, undervaluation and smaller size in delisted rather than public firms. Moreover, another important objective I wanted to achieve developing this study was to try to find a relationship between CAR and the ownership by controlling shareholders. Hypothesizing a negative relationship, the Italian sample confirmed that the more the majorities own, 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 delisting and comparing it with their expectations, to find out whether the choice to exit from capital markets has been the right one.

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APPENDIX

Table 1: Voluntary delisted companies' distribution across years.

Sample	2006	2007	2008	2009	2010	Total
FTSE Italia All-Share	11	9	14	10	6	50
S&P 500	18	24	11	8	10	71

Table 2: Deal type distribution across samples.

Sample	PTP Transactions	M&A with Listed Companies	Total
FTSE Italia All-Share	33	17	50
S&P 500	17	54	71

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

Variables	Model 1	Model 2	Model 3
Market-To-Book Ratio	-.144 (-0.63)		
EV/EBITDA	.013 (2.25)**		.007 (1.26)
Earnings Per Share	-.697 (-1.98)**		
Price-Earnings Ratio	-.005 (-0.97)		
Debt-To-Equity Ratio	.000 (0.60)		
Dividend Yield	.097 (2.01)**		.128 (2.40)**
ln Market Value	.287 (0.40)		1.273 (1.82)*
ln Total Assets	-.418 (-0.67)		-1.566 (-2.47)**
Market-To-Book Ratio lagged		-.430 (-1.68)*	-.343 (-1.73)*
EV/EBITDA lagged		.008 (0.90)	
Earnings Per Share lagged		-1.053 (-2.24)**	-1.105 (-2.29)**
Price-Earnings Ratio lagged		-.002 (-0.58)	
Debt-To-Equity Ratio lagged		.004 (3.08)***	.004 (3.45)***
Dividend Yield lagged		.011 (0.17)	
ln Market Value lagged		1.583 (1.68)*	
ln Total Assets lagged		-1.856 (-2.10)**	
Log. Likelihood	-154.06	-147.47	-145.46
N. Observations	557	557	557

The table above shows the results in terms of coefficients, while z values are highlighted in brackets. 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 4: Regression on CAR for the Italian sample.

Variables	Coefficient	t-statistic	p-value	Standard Error
Controlling Sh.	-.145	-2.59	0.014	.0557862
Market-To-Book	-.002	-0.14	0.887	.0114676
EV/EBITDA	.000	1.58	0.124	.0001342
Debt-To-Equity	-.000	-1.75	0.089	.0000679
ln Market Value	-.046	-0.94	0.355	.0486245
ln Total Assets	.035	0.84	0.409	.0421427
Intercept	.127	0.86	0.397	.1483859
R-Squared	0.31		**N. Observations**	42

Table 5: AAR and CAAR distribution around delisting public announcement.

	Italian Sample		S&P 500 Index Sample	
t (days)	**AAR**	**CAAR**	**AAR**	**CAAR**
-3	0.005174	0.005174	0.000788	0.000788
-2	0.015213	0.020387	0.00498	0.005768
-1	0.014376	0.034762	0.005843	0.011611
0	**0.053347**	0.088109	**0.125096**	0.136707
1	0.011858	0.099967	0.004108	0.140815
2	0.001275	0.101241	0.004324	0.145139
3	0.004035	**0.105276**	0.005874	**0.151013**

Table 6: Logit Model on the Italian sample regarding the difference between firms involved in PTP transactions and acquired by already listed companies.

Variables	Model 1	Model 2	Model 3
Market-To-Book Ratio	1.431 (2.15)**		1.446 (2.16)**
EV/EBITDA	-.004 (-0.45)		
Earnings Per Share	.069 (0.07)		
Price-Earnings Ratio	-.077 (-2.22)**		-.077 (-2.24)**
Debt-To-Equity Ratio	-.003 (-1.20)		-.003 (-0.82)
Dividend Yield	-.433 (-2.30)**		-.431 (-2.33)**
ln Market Value	-5.922 (-2.39)**		-5.999 (-2.40)**
ln Total Assets	3.840 (1.92)*		3.899 (1.96)**
Market-To-Book Ratio lagged		.401 (0.76)	

EV/EBITDA lagged		-.024 (-1.38)	
Earnings Per Share lagged		.587 (0.50)	
Price-Earnings Ratio lagged		-.000 (-0.01)	
Debt-To-Equity Ratio lagged		.001 (1.75)*	-.001 (-0.45)
Dividend Yield lagged		-.564 (-2.30)**	
ln Market Value lagged		-1.351 (-0.83)	
ln Total Assets lagged		.118 (0.09)	
Log. Likelihood	-19.84	-22.88	-19.82
N. Observations	50	50	50

The table follows the same guidelines as the previous one.

Table 7: Logit Model on the S&P 500 Index sample regarding the difference between firms involved in PTP transactions and acquired by listed companies.

Variables	**Model 1**	**Model 2**
Market-To-Book Ratio	-.171 (-1.27)	
EV/EBITDA	.016 (0.23)	
Earnings Per Share	-.045 (-0.27)	
Price-Earnings Ratio	-.022 (-1.05)	
Debt-To-Equity Ratio	.001 (0.65)	
Dividend Yield	-.116 (-0.55)	
ln Market Value	2.042 (1.45)	
ln Total Assets	-2.248 (-1.77)*	
Market-To-Book Ratio lagged		-.198 (-0.99)
EV/EBITDA lagged		-.018 (-0.58)
Earnings Per Share lagged		.047 (0.22)
Price-Earnings Ratio lagged		-.001 (-0.15)
Debt-To-Equity Ratio lagged		-.002 (-0.34)
Dividend Yield lagged		.217 (0.88)
ln Market Value lagged		2.480 (1.32)
ln Total Assets lagged		-2.834 (-1.66)*
Log. Likelihood	-34.86	-33.24
N. Observations	71	71

The table follows the same guidelines as the previous two.

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

	Number of Firms		CAAR		Standard Deviation	
Deal Type	**Italy**	**S&P 500**	**Italy**	**S&P 500**	**Italy**	**S&P 500**
PTP Transactions	33	17	0.124870	0.166741	0.084331	0.131745
M&A with Listed Companies	17	54	0.067241	0.146062	0.040961	0.228052

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

Samples	t-statistic	Degrees of Freedom	p-value
FTSE Italia All-Share	3.251147	52	0.001053
S&P 500	0.464258	53	0.322289