St. Petersburg University
Graduate School of Management

Master in Corporate Finance

WHY DO COMPANIES GO PRIVATE?

Master's Thesis by 2nd year student
Concentration – Corporate Finance
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ЗАЯВЛЕНИЕ О САМОСТОЯТЕЛЬНОМ ХАРАКТЕРЕ ВЫПОЛНЕНИЯ ВЫПУСКНОЙ КВАЛИФИКАЦИОННОЙ РАБОТЫ

Я, Смирнов Алексей Михайлович, студент второго курса магистратуры направления «Менеджмент», заявляю, что в моей магистерской диссертации на тему «Почему компании становятся частными?», представленной в службу обеспечения программ магистратуры для последующей передачи в государственную аттестационную комиссию для публичной защиты, не содержится элементов плагиата.

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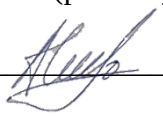

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АННОТАЦИЯ

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Описание цели, задач и основных результатов	Целью данного исследования является определение факторов, взаимосвязанных с решением компании по смене организационно-правовой формы с публичной на частную. Для достижения поставленной цели был проведен обзор литературы по теме делистинга и выявлены факторы, связанные с решением компании по смене организационно-правовой формы. В работе были подробно изучены и представлены теории и исследования, описывающие решение компании о процедуре делистинга. В практической части работы было произведено эмпирическое исследование на базе 613 компаний альтернативного инвестиционного рынка и 799 компаний основного рынка Лондонской фондовой биржи. Результаты эмпирического исследования показали, что компании альтернативного инвестиционного рынка, имеющие меньшие капитальные затраты, более низкие показатели операционной деятельности и меньшие темпы роста выручки, с большей вероятностью осуществят процедуру делистинга. Более того, компании основного рынка с более низкими показателями операционной деятельности, меньшими темпами роста выручки и ухудшившейся ликвидностью акций с большей вероятностью осуществят процедуру делистинга.
Ключевые слова	Добровольный делистинг, принудительный делистинг, детерминанты делистинга, смена организационно-правовой формы, выкуп акций компании, модель Кокса, альтернативный инвестиционный рынок, основной рынок, Лондонская фондовая биржа

ABSTRACT

Master Student's Name	Aleksei Smirnov
Master Thesis Title	«Why do companies go private?»
Faculty	Graduate School of Management
Main field of study	080200 “Management” (specialization: Master of Corporate Finance)
Year	2017
Academic Advisor’s Name	Irina V. Berezinets, Associate Professor
Description of the goal, task and main results	The research goal of the paper is to determine the factors, which are related to the company’s decision to go private. In order to meet the research goal, a literature review on the subject of delisting was conducted and factors related to the the company's decision to change the ownership structure were identified. In the work, theories and researches describing the company's decision to the going private transaction were thoroughly studied and presented. In the practical part of the work, an empirical study was conducted on the sample of 613 companies of the Alternative Investment Market and 799 companies of the Main Market of the London Stock Exchange. The results of the empirical study showed that Alternative Investment Market companies with lower capital expenditures, lower operating performance and lower revenue growth rates are more likely to go private. Moreover, companies on the Main Market with lower operating performance, lower revenue growth rates and deteriorated liquidity of shares, are more likely to go private.
Keywords	Voluntary delisting, involuntary delisting, determinants of delisting, change of legal organizational form, going private transaction, Cox model, Alternative Investment Market, Main Market, the London Stock Exchange

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INTRODUCTION

The London Stock Exchange in terms of market capitalization is the largest stock exchange in Europe and the third largest in the world. Every year a large number of companies join public markets - the Main Market and Alternative Investment Market (AIM – for smaller, growing companies), in order to grow and enhance the business. The decision to go public is viewed as a decision to develop the business and expand the companies' capital. Nevertheless, some companies decide to leave the market over the time.

Hence, many questions remain regarding the factors that influence the company's decision to leave the public market, and the rationale for this step. In fact, the going private transactions from the London Stock Exchange take place every year and for the last 7 years a number of going private transactions equals to 1435 from both markets.

Over the past decade, delisting has become a common event in all international stock markets. In the US a sharp increase in the number of LBO occurred in the early 1980s. The first studies of delisting motives began to appear only in the mid-1980s. According to the Securities Data Company in the US stock markets since 1996, more than 900 delistings have taken place. In Europe, from 1995 to 2005, more than 25% of traded companies carried out delisting through LBO and non-LBO. Thus, the delisting procedure is a method of transition to a private legal organizational form, which occurs in various stock markets and has several types.

There are a number of reasons of a company being delisted:

1. Voluntary, such as going private or "going dark transaction" (move to the over-the-counter markets) or being bought out by another company or private equity firm.

   and

2. Involuntary, such as violation of the requirements of the stock exchange and/or poor financial performance of the company.

The thesis focuses on the voluntary going private transactions.

The reasons why public companies can leave the public market and become private are quite a new topic in financial literature. One of the most common determinants of such a decision for going private transaction is the desire to reduce the agency costs, eliminating the separation between ownership and management, with some share of undistributed cash flow used as a proxy for the extent of such conflicts (Jensen 1986). Kim and Lyn (1991) continued the study and in addition found evidence that companies carrying out delisting were underestimated and demonstrated a decrease in financing through the issuance of shares. These companies are

concentrated in industries with stable cash flows, have unemployed debt capacity, high agency costs of free cash flow and are usually smaller in size than firms that do not delist.

Weir (2005) and Renneboog (2007) studied the sources of benefits for shareholders in case of delisting of the companies in the UK. The authors in the studies came to the common conclusions that the company is less likely to suffer from high agency costs arising from the conflict of interests between shareholders and managers if the share in the hands of one or more shareholders is higher, and also there is a careful control by other shareholders. Their analysis showed that, indeed, companies, which in the opinion of management were underestimated, delisted more often. Also, the companies that carried out delisting were undervalued by the market. The authors showed that, compared to firms that remained public, private companies were smaller, younger, more diversified, and had lower growth opportunities, measured with the Tobin's Q coefficient.

Bharath and Dittmar (2010) used Cox proportional hazard model to determine the factors influencing the companies' decision to delist. Their results confirmed the importance of FCF, growth prospects, access to the capital and the liquidity of shares as highlighted in previous studies. Martinez and Serve (2011) exploited the specificity of going-private transactions in Continental Europe. The results they obtained confirmed traditional motives derived from the analysis of costs and benefits: when the advantages of listing are reduced because of weak liquidity and/or weak analytical coverage, companies consider it more profitable to delist. In addition, the characteristics of companies that delist (i.e. productivity, financial leverage and risk) have proved to be important determinants for delisting.

Kashefi-Pour and Lasfer (2013) studied the decisions of the companies to voluntary delist from the Alternative Investment Market. Their findings show that firms with higher leverage, lower growth opportunities and lower capital expenditures are more likely to voluntarily delist from the AIM. Marosi and Massoud (2007) and Leuz (2008) analyzed US firms and found that voluntarily delisted firms are smaller and have lower free cash flows than the firms that stayed public. These findings suggest that there might be different factors of going private transaction for companies on Main Market and Alternative Investment Market of the London Stock Exchange.

This leads to the research question and research goal of the paper. In this study the following question is answered: "Which determinants are related to the probability of a company being delisted?"

The research goal is to determine the factors, which are related to the company's decision to go private. In order to meet the research goal the following objectives were set:

- To conduct a literature review on the subject of delisting and identify the factors associated with the company's decision to change the ownership structure.
- To present the theories describing the motives of companies for the procedure of delisting based on the review of the contemporary scientific research.
- To conduct an empirical study aimed at identifying the determinants of the change of the legal form of the companies, which carried out the delisting from the Alternative Investment Market and the Main Market of the London Stock Exchange.
- To draw conclusions on the work and to formulate a list of managerial future references.

The object of the study is a sample of all companies listed on the London Stock Exchange on AIM and Main Market at any point in time during the period between 2005 and 2016. The subject is a going private transaction of the company from the stock exchange.

This master thesis is an empirical research, so for the purpose of the study the statistical and econometric analysis with the help of Stata software is implemented.

The main sources of information for the master thesis are: academic articles devoted to motivations for conducting going private transaction, theoretical justifications of the determinants and specific factors of delistings; monographies aimed at the study of the going private transactions; professional periodical literature (Journal of Finance, The Financial Times and others); text editions devoted to the analysis of the panel data, hazard and survival functions.

In addition to Thomson Reuters Eikon, Thomson Reuters Datastream, SKRIN, SPARK, ZEPHYR databases, reports on the London Stock Exchange Statistics Center and annual reports available on official websites of companies are used for the purpose of regression analysis.

The following structure of the paper was chosen in order to achieve the stated goal and objectives. The first chapter is devoted to the analysis of the going private transaction, justification of the theories describing going private transactions and analysis of the delisting cases. Moreover, in the first chapter the research hypotheses of this paper are formulated and the description of the variable for the empirical study is introduced.

In the second chapter the research methodology applied in the thesis, sample selection process and descriptive statistics of the variables included in the sample is described. Furthermore, the results of the econometric analysis as well as the main findings of the paper are discussed. Based on the results of the theoretical and econometric study the managerial implications are developed.

CHAPTER 1. THEORETICAL BACKGROUND AND LITERATURE REVIEW

1.1 The concept of delisting

In the corporate finance literature the decisions of companies on the transition to a public organizational and legal form (IPO implementation - initial public offering of shares) are often investigated. The reverse action, that is the transition to a private legal organizational form, or delisting, is much less studied, despite its importance for companies. If the IPO decision is usually viewed as a stage of company's growth, there are many questions about the conditions under which the public company moves to a private form, as well as the rationale for this step.

Full delisting can be of two types: voluntary delisting and forced. In the context of forced (or involuntary) delisting the company is subject to withdrawal from stock markets due to the fact that it is experiencing financial difficulties or will be merged and/or acquired by another firm. The case of a voluntary delisting is a process of change in the shareholder structure. Further, studies related to both types of delisting, in which the authors studied the reasons for the companies' decisions to withdraw from the stock exchanges, will be considered.

1.2 Voluntary delisting

Voluntary delisting occurs when a public company decides to become private. Both existing and potential shareholders seeking to concentrate the property in their hands and not wanting to leave the company traded publicly can initiate the process of a voluntary delisting.

In addition, voluntary delisting can take different forms depending on the country. In the United States and the United Kingdom, voluntary delisting, basically, takes the form of Leveraged Buy-Out (LBO): traded companies are acquired by private equity investors through borrowed capital. After the implementation of the LBO, the acquired company leaves the stock market, having carried out delisting. In most cases, an untraded company is created specifically for acquisitions. Such transactions on the transition from public to private legal organizational form are most often directed to companies, in which the share of stocks in the hands of the largest shareholders is small. Unlike the Anglo-Saxon countries, most European firms, especially in continental Europe, have a large shareholding base (Lang and Faccio 2002). In such cases, the prevailing practice to switch from a public to a private legal organizational form is a Buy-out Offer with Squeeze-Out (BOSO). Squeeze-Out is a transaction, in which controlling shareholders can exercise their legal right to buy back minority shareholders for cash. This transaction makes the company completely private and controlled solely.

In Europe, the BOSO transaction is governed by the Thirteenth Directive on Takeovers[1] and allows the major shareholder to oblige minority shareholders to sell their shares in exchange for fair rewards. Unlike LBO, BOSOs are initiated by corporations or the owners' families, rather than by private equity investors. Given the different aspects of BOSO and LBO, the incentives and drivers behind these types of legal organizational form change are different. That is, the method of delisting will depend on the share in the hands of the controlling shareholder and the form of ownership. In addition, the differences in the form of delisting are related to those who initiated the transition from public to private legal organizational form.

The number of delisting decisions is closely related to the existence of institutional mechanisms that more closely regulate corporate governance. External mechanisms, such as the application of the Sarbanes-Oxley (SOX) law in the USA, or the Financial Security Law (FSL) in France or The Companies Act 18 of the Securities and Exchange Board of India (SEBI)[2] in India, are often referred to as a driving force for Implementation of delisting. This is due to the fact that compliance with these requirements forces companies to incur high compliance costs imposed by these rules. On the other hand, the fulfillment of these requirements increases the efficiency of the company's management. In case of effective and quality compliance with the rules imposed by external mechanisms, the company will not be excluded from the stock exchange and will increase its own efficiency. Indeed, for companies with weak corporate governance there is an incentive to be private in order to eliminate conflicts between management and shareholders who have access to financial statements.

Therefore, the reasons for the delisting decision can be both internal (decision of shareholders of the company) and external (for example, problems with compliance with the requirements of the exchange). Further, the analysis of studies aimed at studying the determinants of delisting will be conducted.

In the research of DeAngelo (1984) the author reviewed the organizational structure of LBO in the US market. In this paper, the author investigated the motives for such transactions and their implications for minority shareholders. In addition, the author tested gains-sharing propositions and found the average effect of the increase of the owner's income due to stocks purchase from the delisting proposal and the average effect of decreasing income in refusing the original delisting decision. The research emphasizes that the transition to a private legal organizational form potentially creates benefits by reducing the cost of listing (registration,

[1] Directive 2004/25/EC of The European Parliament and of The Council of 21 April 2004. On takeover bids. *EUR-Lex*. Accessed January 20, 2017. Retrieved from http://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX%3A32004L0025.

[2] Securities and Exchange Board of India. (2013). The companies act no 18. *Ministry of Corporate Affairs. Government of India*.

listing maintenance and other service costs of the stockholders). As an example there is Barbara Lynn Stores, Inc., in which the cost of maintaining the listing for 10 years was about 1 million US dollars, while the market value of the company before the announcement of the decision on delisting was estimated at 1.383 million US dollars. In addition, delisting led to the introduction of an ownership structure that improved the incentives and effectiveness of corporate decision-makers.

First of all, it was noted in the study that when moving to a private form, the most significant increase in profits was felt when the managers' incentives (ex-post) were more closely associated with over-fulfillment (ex-ante) of the plan (discretionary effort). Also, since the ownership interest of management increased due to the increase in shareholdings with LBO, managers took their decisions more responsibly, since they could lose their own assets in case of incorrect actions.

The author of the research conducted a study using a standard event-time methodology to analyze the benefits for minorities from the announcement of the delisting and the subsequent withdrawal from the stock market, as well as the decision to abandon the already announced delisting.

The study was conducted on a sample of companies formed on the basis of information from the issues of The Wall Street Journal Index for the period from 1973 to 1980. As a result of the analysis, during the period under review, the selected companies announced the transition to a private legal organizational form. The final sample comprised of 81 companies, 72 of which made a voluntary decision on delisting, 9 – involuntary decision.

The authors (Fibirova and Petera 2013) tested the gain-sharing hypothesis (encouraging management to improve the company's productivity, reducing costs) for public owners of company shares when (1) declaring a delisting decision and (2) abandoning the announced delisting. This hypothesis implies a positive effect on the income of the owner of shares at (1) and the negative effect at (2). The authors concluded that both hypotheses were confirmed, and the increase in the income of the owners of the shares increased, on average, by 22.27% with (1) and decreased, on average, by 8.88% with (2).

Besides this, the authors investigated the hypothesis of the size of the company and the potential benefits of cancellation of the listing. This hypothesis implies that the larger the company, the potentially more effective it is in depreciating fixed costs. The authors concluded that small companies will be more motivated to leave the public market when the direct costs of maintaining the listing will increase (the cost of IPO registration and the commission for the placement of securities, including annual listing fees imposed by the exchange and regulatory

bodies). As for indirect costs (reduction of expected benefits from public form), underestimation of the company's value is an example of the alternative cost that is generated due to the asymmetry of information between managers/owners and investors of the stock market. Unlike investors, management has more complete internal information about the company and knows the true distribution of future profits. Therefore, underestimation of the company's value occurs when the market price of the stock does not fully reflect the true value of the company.

Kim and Lyn (1991) continued the study of DeAngelo (1984) and conducted their research of the American companies that announced delisting. The authors again took the information on the delistings of the companies from The Wall Street Journal Index. The sample included 53 companies that delisted from 1976 to 1984. The sample in this study was smaller, because the authors introduced a number of limitations. The sample of companies that did not delist was formed by a random selection of each 20th company in the alphabetical list of different industries. This sample includes 78 companies.

The authors considered four hypotheses in their study:

1. Agency costs of free cash flow (FCF) as a motive for delisting. Delisting with a view to reduce dividend payments.
2. Agency debt costs (Debt) as a delisting motive (companies that carry out delisting have less financial leverage than companies that remain public).
3. Informational asymmetry and Stock Undervaluation as a motive for delisting.
4. Hypothesis of the size of the company.

For each hypothesis, the authors selected the financial indicators of the companies that were used as variables. These characteristics of companies that carried out delisting were compared with the characteristics of companies that did not delist using a single-factor and multifactor analysis.

All the hypotheses of scientific research were confirmed, and the authors obtained the expected signs for the variables. One-factor analysis was used to find differences between the companies that delisted and not. A linear probability model was also used to explain the motivation for delisting. The authors found that the companies carrying out delisting were underestimated and demonstrated a decrease in financing through the issuance of shares. These companies are concentrated in industries with stable cash flows, have unemployed debt capacity, high agency costs of free cash flow, and are usually smaller in size than firms that do not delist. Both analyses offer evidence in accordance with three hypotheses about free cash flow, information asymmetry and underestimation of the value of shares, as well as agency costs of debt.

The key conclusion of this work was that when management representatives know that the value of shares in companies is undervalued, they can decide to delist for strategic reasons in order to extract personal benefits and avoid the costs of maintaining the listing.

The question of listing on the stock exchange or leaving it also depends on the point of view of potential investors. One way to identify interest is to study the liquidity of shares and the associated trade costs. As numerous studies and models have shown (i.e. (Amihud 1998), (Bolton and Von Thadden 1998), (Boot, Gopalan and Thalor 2006)), the liquidity of stock trading is an important motive for existing in a public legal organizational form. As a consequence, if liquidity deteriorates, the firm will more likely become private.

One of the advantages of maintaining the status of a public company is the possibility of sharing the joint risk with the shareholders. Shah (1988) showed that when the controlling shareholder has more complete internal information about the distribution of revenues from the firm's assets, the status of the public company is attractive because it allows the risk to be shared more effectively with the shareholders (investors can eliminate unsystematic risk by diversifying the portfolio). On the other hand, a firm can delist when unsystematic risk is low, and the company's publicity no longer provides the benefits of risk sharing.

In Anglo-Saxon countries, the dominant form of transition to a private form is LBO, which is often aimed at companies with a low stake in the hands of the largest shareholders. In this case, the main motive for the transition to a private form is related to agency theory: LBO is seen as a means to reduce the conflict of interests between managers and shareholders. The main dilemma is how to achieve that management acted in the best interests of shareholders (Jensen 1986), which provides two possible explanations for the decision to delist through LBO.

One possible explanation is the hypothesis of the reorganization of incentives: it is necessary to combine the incentives of managers with incentives of shareholders. Kaplan (1989a) cites this hypothesis as an important factor in a delisting decision. Delisting allows combining the ownership of the company with a direct management, since a company with a large number of shareholders is acquired by several investors who actually begin to manage and own the company. As a consequence, the increase in shareholders' income that arises from delisting provides an opportunity to receive incentives for managers and motivates them to act in accordance with the interests of investors. The increase in profits indicated by the author in the study is associated with reduced agency costs, new incentives for managers, transfer of a share in the company from managers and ordinary shareholders to investment groups, as well as information from managers that is not held by shareholders. Also, Kaplan (1989b) first announced tax incentives as the main source of value creation for 76 Management Buy-Outs

(MBO) from 1980 to 1986. The median value of the benefit from tax benefits varied between 21% and 143% of the premium paid to shareholders before buy-out. The estimated value of gains from tax benefits depends on the rate of repayment of buy-out debt and the tax rate applied to interest payments. The study also provides data on the actual taxes paid and rates for repayment of debt by these companies after the repurchase. The results in this article suggest that tax benefits are an important source of wealth growth for an MBO.

Another explanation of the delisting decision through LBO is the free cash flow hypothesis (FCF). High credit obligations associated with LBO suggest a reduction in free cash flow by managers, because most of the cash is needed to repay the debt.

In countries of continental Europe, including Russia, corporate governance models differ from Anglo-Saxon countries, as the ownership structure is more concentrated. According to Lang and Faccio (2002), in the countries of continental Europe the largest stake of the shareholder is approximately two times larger than in the Anglo-Saxon countries in LBO transactions.

Weir (2005) and Renneboog (2007) analyzed the sources of benefits for shareholders in case of delisting of the companies in the UK. In the research papers of these authors the presence of a high concentration of ownership implies more careful control before the delisting by external shareholders who do not manage the company and do not belong to the owning family. Thus, the authors in the studies came to the common conclusions that the company is less likely to suffer from high agency costs arising from the conflict of interests between shareholders and managers if the share in the hands of one or more shareholders is higher, and also there is a careful control by other shareholders. Consequently, if the hypothesis of incentive reorganization explains the delisting of European companies, it is not a strong driver in the Anglo-Saxon countries.

Weir (2005) included companies that delisted from 1998 to 2001 in the final sample. The author investigated the reasons for the delisting decision by comparing the characteristics of the 117 companies that became private through LBO, with a random sample of 362 companies that remained public.

The author tested seven hypotheses:

H1a: Companies that suspect that the value of their shares is undervalued are more likely to delist.

H1b: Companies that are really undervalued are more likely to delist.

H2: Companies with a higher board (more shares of board members) and more shares from institutional investors are more likely to delist.

H3a: Companies that do not adapt recommended management structures are more likely to delist.

H3b: Companies, in which the CEO and the chairman of the board of directors is one person, are more likely to delist.

H4: Companies with fewer non-executive directors are more likely to delist.

H5: Companies with a higher FCF are more likely to delist.

H6: Companies with less growth prospects are more likely to delist.

H7: Delisting companies pay more taxes than those that remain private.

The authors used a multivariate regression analysis. In the study the hypotheses H1a, H1b, H3b, H5 were confirmed. The remaining hypotheses were rejected.

Logistic regression analysis showed that, indeed, companies, which in the opinion of management were underestimated, delisted more often. Also, the companies that carried out delisting were undervalued by the market. Companies that carried out delisting had a board of directors with a large number of shares and a large number of external shareholders. Companies that carried out delisting were less likely to have Duality (H3b), adapted recommendations and had more non-executive directors.

The authors showed that, compared to firms that remained public, private companies were smaller, younger, more diversified and had lower growth opportunities, measured with the Tobin's Q coefficient.

Renneboog (2007) set a goal to test the sources of the expected value from delisting and distinguish between: tax incentives, restructuring of managerial incentives, FCF, cost reduction operations and underestimation of the company value.

The authors found that the main sources of increase in shareholders' wealth are underestimation of the value of the target firm before the transaction, tax cuts in interest payments and restructuring of rewards for 177 British companies that delisted from 1997 to 2003. These studies, carried out by Weir (2005) and Renneboog (2007) indicated two important differences from studies in the US. First, the authors found little evidence in favor of the FCF hypothesis. Secondly, tax benefits for companies financed by borrowings were less in the British market.

Given that corporate governance in continental Europe differs from that in the UK and the US (Lang and Faccio 2002), the motives for direct investment transactions and the characteristics of goals may also differ. The most important difference is ownership and control. While the most of public companies in the United States and Great Britain belong to a large number of shareholders, the most of continental European companies have large shareholders,

such as families. Given the size of their stake, these large shareholders are likely to have some incentives to control the management. Achleitner (2013) considered the problem of how the ownership structure influences the delisting decision of buyout by a private equity investor. The sample included 1295 companies for the period from 1997 to 2007.

The authors analyzed the role of direct private investment transactions in continental Europe and made seven hypotheses of scientific research:

H1: The probability that a company will be taken over by a private equity investor is reduced if the company has an active, controlling shareholder.

H2: A company with a shareholder who owns a large stake of the shares and who enjoys private benefits from control is less likely to be attractive for buying by a private equity investor.

H3: Private equity investors are more likely to invest in companies with a relatively low and relatively high proportion of shares in the hands of management.

H4: The probability of acquiring by a private equity company by an investor is higher for firms with low leverage ratios and high tax debt.

H5: Private equity investors prefer to buy companies with low debt load and high levels of FCF.

H6: Private equity investors are more likely to acquire companies with stable cash flows.

H7: The probability of acquiring a company by the private equity investor is negatively related to the liquidity of the company's shares.

Hypotheses 1 and 2 were confirmed, but only if the authors divided the owners of a large block of shares by type. Hypotheses were confirmed for companies where the largest owner was the family, but not confirmed with another type of owners. Hypotheses 3 and 6 were rejected, while hypotheses 4 and 5 were accepted.

So, not all major shareholders can participate in the management of the company. In other words, if a large shareholder controls management, this is likely to make the firm less attractive to private equity investors, given that there is less potential to create value for the latter. On the other hand, a large shareholder who is unable to control the management, perhaps because of lack of skills, may be more intent to sell her/his company to a private equity investor. In addition, strong control can also generate indirect costs, since large shareholders can use their management rights to extract personal benefits of control from the firm at the expense of other shareholders. As a result, private equity investors can avoid companies, in which controlling shareholders derive private benefits of control and who are ready to sell their shareholdings only for a premium that is high enough to compensate for the loss of their benefits.

Achleitner (2013) has proved that the likelihood that a company becomes an object of acquiring by a private equity investor depends on the incentives for monitoring and the private benefits of control enjoyed by existing large shareholders. Nevertheless, this picture arose only when the authors separated different types of large shareholders, and this only applied to firms, in which the ultimate controlling shareholder was the family. This provides additional evidence about the types of shareholders who control the management and those who do not. The results show that family companies are likely to expropriate minority shareholders in their firms, unlike other types of holders of a large shareholding.

In addition, the transition to private legal organizational form in companies located in continental Europe often leads to a conflict of interests between majority and minority shareholders (Croci 2014): while large shareholders try to extract private benefits of control, small shareholders have little that they can oppose. In addition, the authors examined how the ownership structure influenced the delisting decision. On a sample of 882 delisting cases via LBO and non-LBO, the authors investigated the market response to a delisting announcements and operational activities after delisting.

The authors made two hypotheses of the scientific research:

H1: Compared to other delisting, delistings carried out by the controlling shareholder showed lower profitability during the announcement of the delisting decision and higher operating performance after delisting.

H2: Compared to other delisting, delistings carried out by a family of shareholders have shown lower returns and higher and improved performance after delisting.

They found that the cumulative abnormal returns (CARs) in the event window were negatively related to the shareholding of the largest shareholder, which corresponds to the assumption implied by the agency theory. The hypothesis of undervaluation was confirmed. Finally, they found that operating activities after delisting of family companies were better than of those companies that were excluded by other owners. Operating activities after delisting were measured solely on financial statements, since the value of shares after delisting was no longer available. As an indicator of operating activity, the authors used the return on assets ratio.

In case of delisting through BOSO, the controlling shareholder group owns 90% or more of the voting rights at the time of BOSO, since before the initiation of the buyout offer from minority shareholders, the major shareholders established a second corporation that initiates merger with the original corporation. Shareholders using this technique are then in a position to dictate a merger plan. They legally oblige minority shareholders of the original corporation to accept monetary compensation for their shares. Thus, agency conflicts between managers and

owners take a second priority, while conflicts between large and minority shareholders play center stage.

The vast majority of transactions through LBO occur with significant use of borrowed capital. Consequently, many authors in their researches have focused on the form of delisting and the use of sources of financing, as well as their impact on financial performance of companies.

In many studies, tax benefits are seen as a key factor in conducting delisting through LBO. Lehn and Poulsen (1989) in their study put two issues of scientific research:

1. Do the companies that carry out delisting have a much larger undistributed cash flow than similar companies that did not delist?
2. Is the undistributed cash flow an important determinant of the premium paid during the delisting process?

So, the authors note that tax benefits are an important source of increasing profits in the US market, since interest payments on corporate debt are not taxable. A significant increase in cash flows creates a large tax shield, and after delisting through LBO is carried out, companies do not pay almost any taxes for a long period, which increases the company's profits and, in particular, the income of the company's owners. Lehn and Poulsen (1989) on a sample of 263 LBOs from 1980 to 1987 found that the likelihood that a company will perform delisting is directly related to the share of undistributed cash flows. In addition, the authors found that the undistributed cash flow is a determinant of premiums paid to shareholders during the delisting. Both results of scientific research were more significant for firms that delisted from 1984 to 1987, when the number of buyouts was significantly higher than in other years, as well as for companies where managers owned a fairly small percentage of shares before delisting.

In case of delisting through BOSO, tax benefits have less effect of tax benefits, because such transaction requires less financial leverage than LBO. Nevertheless, consideration of the issue of additional borrowing often also influences the final decision of delisting: if the firm no longer needs access to the securities market and does not have financial obligations to maintain the listing, the decision of delisting may reveal preferences of alternative sources of financing, such as debt. This preference is fair provided that there are fewer benefits from listing, and higher costs are associated with maintaining the listing (Bharath and Dittmar 2010), (Martinez and Serve 2011). In addition, the authors in their works paid special attention to the situation, in which companies no longer need access to the securities market, and for them lack of opportunities for growth and investment projects may be another incentive for delisting.

Bharath and Dittmar (2010) argued that since theories of entering the stock exchanges are theories of a tradeoff type (the choice of the optimal level of financing by debt and equity), they can also be used to analyze the decision of firms for the transition to private legal organizational form.

The authors conducted a study on a sample of US companies from IPO to delisting between 1980 and 2004 (1881 firm-years) and compared these firms with a sample of companies that entered the IPO and remained public (6640 firms-years). The authors used Cox proportional hazard model to determine the factors influencing the companies' decision to delist.

First, their results confirmed the importance of FCF, the liquidity and transparency of financial transactions, as highlighted in previous studies.

Secondly, they determined the importance of the ownership structure, as well as the importance of the benefits and costs of maintaining the status of a public company. Thus, they found that firms carrying out delisting through LBO had lower institutional ownership, a larger stake in the hands of a large shareholder and more informed trading (the situation when more traders are aware of the company) at the time of the IPO than companies that remained on the stock market.

Martinez and Serve (2011) studied voluntary delistings for the period from 1997 to 2006. Their study was conducted on a sample of French companies delisted through BOSO. The authors considered the specifics of transactions initiated by historical holders of a controlling stake. The sample of the study consisted of 70 companies that voluntarily carried out delisting through BOSO, and 70 companies from similar industries that were public. The results they obtained confirmed traditional motives derived from the analysis of costs and benefits: when the advantages of listing are reduced because of weak liquidity and/or weak analytical coverage, companies consider it more profitable to delist. In addition, the characteristics of companies that delist (i.e. productivity, financial leverage and risk) have proved to be important determinants for delisting. Complementary results of the study showed the difference between driving factors of delisting depending on the controlling shareholder.

In this section, various reasons for companies to delist were considered depending on the type of transaction (LBO and BOSO) and location (US, UK, continental Europe). These reasons relate to situations when delisting is a voluntary decision of the company's management. Nevertheless, there are other situations, in which delisting is a forcing measure. In the next section such situations are considered and described.

1.2.1 Stock Exchange Description and Delisting Decisions

The Alternative Investment Market (AIM) in London (UK) is an international market for small, growing companies. A wide range of businesses, including early stage, venture capital-backed businesses and more established companies, join the AIM seeking access to growth capital. This market is one of the most successful growth markets in the world. Since its launch in 1995, over 3000 companies from across the globe have chosen to join the AIM. The AIM helps smaller and growing companies to raise the capital they need for expansion. This financing has enabled AIM companies to fund their development and pursue their growth ambitions. Additionally, this market provides companies with the opportunity to raise capital on a market with a pragmatic approach to regulation. To join the AIM, companies are not required to have a particular financial track record or trading history. The AIM's balanced regulatory regime was designed specifically for smaller, growing companies, offering opportunities to both companies and investors. The AIM has a large, diverse and committed community of stakeholders. Specialist advisers are crucial to the market's success and range from dedicated Nominated Advisers who play a central role in the life of an AIM company, to lawyers, accountants and brokers. Other important participants include public relations and investor relations agencies that help companies to join the market and make the most of their AIM quotation.[3]

According to AIM statistics, the market began trading 10 SME firms from various countries in June 1995. In 1999, there were 347 SMEs, with the number of firms peaking in 2007, when 1694 SMEs were trading. The number of firms listed on the AIM has decreased from 2007, following the financial crisis. As of December 31st 2016, there were only 986 SMEs. There is a rule for all companies that they had either to comply with the code of the stock exchange or to explain to their shareholders why they had not done so.

The London Stock Exchange's Main Market is the world's most international market for the admission and trading of equity, debt and other securities. Its location at the heart of the world's leading financial center makes it the market to over 1500 companies from 60 countries, including many of the world's largest, most successful and most dynamic firms. As of December 31st 2016, there were 1298 companies on the Main Market of the London Stock Exchange. The regulation on the Main Market is stricter. When the exchange believes that there is a breach of the standards, it may commence disciplinary action against companies. The exchange may announce a warning notice and/or refer disciplinary matters and, as a result, involuntary delist the company from the market.

[3] AIM: the most successful growth market. *London Stock Exchange*. Accessed February 2, 2017. Retrieved from http://www.londonstockexchange.com/companies-and-advisors/aim/for-companies/companies.htm.

The Main Market is also one of the world's most international and diverse stock markets, with companies coming from over 60 countries across 40 sectors. There are different routes to join the Main Market, which are outlined below:

- The Premium listing status is only available for trading companies and closed and open-ended investment entities. Issuers with a premium listing are required to meet the UK's rules, which are stricter than the EU minimum requirements. Due to the fact that premium listed companies comply with the UK's highest standards of regulation and corporate governance, they may enjoy a lower cost of capital because of greater transparency and through building investor confidence.
- The Standard listing is open to issuance of equity shares, Global Depositary Receipts (GDRs), debt securities, and securitized derivatives that are required to comply with EU minimum requirements. A Standard Listing allows issuers to access the Main Market by meeting EU harmonized standards.
- The Specialist Fund Segment is a segment of Main Market, which is designed for highly specialized investment entities that wish to target institutional, highly knowledgeable investors or professionally advised investors only.[4]

The distribution of AIM and Main Market companies by equity market value is presented on Figure 1. Companies on AIM are, on average, smaller in market capitalization. Most of the companies on Main Market are larger than 100 million of UK pounds in terms of market value of equity, while most of the companies on AIM are smaller than 50 million of UK pounds.

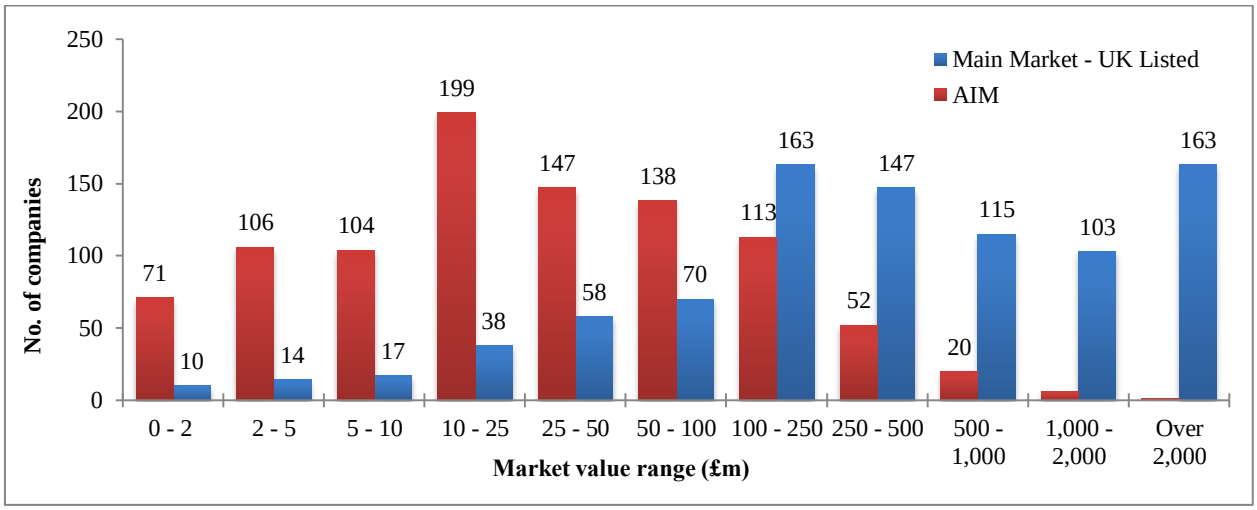

Figure 1. *Distribution of AIM and Main Market companies by equity market value in millions of UK pounds. Source: according to http://www.londonstockexchange.com%2Fstatistics%2Fhistoric%2Fmain-market%2Fmain-market-factsheet-archive-2017%2Fmar-17.xls*

[4] About the Main market. *London Stock Exchange*. Accessed February 2, 2017. Retrieved from http://www.londonstockexchange.com/companies-and-advisors/main-market/main/market.htm.

According to the UK regulation, a company that decides to go private should notify the London Stock Exchange to cancel its trading on the exchange at least 20 days prior to such date. In AIM, the decision to go private should be approved by more than 75% of shareholders in the meeting. The Main market also incorporates a somewhat equivalent transaction for the delisting. The company advises the exchanges of the delisting intention at least 20 days in advance. It also needs to announce its intention through a regulated information service. Once the intention is agreed, "the exchange will announce the intention to cancel individual securities through the reference data service and the intention to cancel issuers through a regulated information service".[5] Shareholders' approval of more than 75% for the going private transaction is needed for standard listed companies. Premium listed do not need the shareholders' approval. Once the company is delisted from the exchange, it becomes private and shareholders have two options: they can either sell their shares before the delisting date with a premium or remain shareholders in what will become a privately owned company.

1.2.2 The delisting decision on the Alternative Investment Market

Gerakos (2013) compared the characteristics and performance of AIM companies with those traditionally regulated markets, such as the Main Market of LSE and NASDAQ in the US. The authors also analyzed the returns and liquidity of comparable companies. They focus on the influence of the nominated adviser, given that the AIM market provides regulatory flexibility and these adviser oversight firms in this market. The survival analysis focused on a cross-market comparison to discover, whether the established by the nominated adviser regulation in the AIM is better for firms than traditional regulation established by regulators and public institutions in other markets. Their findings show that AIM firms perform poorly on almost every dimension. Moreover, AIM companies are much more likely to fail than firms on other markets, supporting the idea that less strict regulation on the AIM damages these firms.

Espenlaub (2012) developed a detailed survival analysis of all AIM IPOs, focusing on the reputation of nominated advisers because this reputation could be crucial in limiting informational problems and incentive conflicts. The AIM listed firms must maintain a nominated adviser at all times. It was found that the higher the nominated adviser's reputation, the lower the probability of delisting, although company age, size, pre-IPO sales and insider ownership also reduce this probability. Therefore, the AIM has been called a reputational market, given that regulatory agents certify and control the quality of the listed firms (Mendoza 2008); (Espenlaub

[5] London Stock Exchange admission and disclosure standards. *London Stock Exchange*. Accessed January 10, 2017. Retrieved from http://www.londonstockexchange.com/companies-and-advisors/main-market/documents/admission-and-disclosure-standards.pdf.

2012). According to Espenlaub (2012), the role of nomads has been criticized after recent corporate scandals, as it appears some advisers fail in their duty to monitor firms. The authors also found that firms with more insider ownership have a longer survival period, in accordance with lower agency conflicts. They compare survivors to companies that delist because of a merger and acquisition or negative circumstances (liquidation or permanent suspension), but they do not include those firms that delist voluntarily (transfer to main market) or due to market regulation.

Kashefi-Pour and Lasfer (2011, 2013) studied the impact of debt financing of AIM companies on the voluntary decision to go private. Their results of the research showed that firms with higher leverage, lower growth opportunities and lower capital expenditures are more likely to voluntarily delist from the AIM. For firms that are unable to raise equity capital and rebalance their leverage as public firms, the cost of maintaining their places on the AIM exceeds the benefit.

Amini and Keasey (2013) analyzed the influence of a firm's geographical proximity to London and its operating in the financial sector on IPO survival, and found that these aspects increase the probability of IPO failure on the AIM.

1.2.3 The delisting decision on the Main markets

Aslan and Kumar (2011) focus on both decisions, going public and private, for UK non-financial and non-utilities firms in the AIM and Main market. They claim that managers may obtain private benefits from investing and managing large assets and that it is, therefore, costly to provide managerial incentives in those firms with dispersed ownership. Analyzing the period 1996-2006, the authors found that low-visibility firms with high information costs, placed in underpriced industries and controlled by owners with private benefits of control, are more likely to go private. After going private, firms decrease investment, size, and sales growth, but increase profits, especially those firms bought out by private equity investors.

Results of Aslan and Kumar (2011) support the view that firms that are economically underperforming due to agency conflicts between managers and dispersed shareholders. Companies are more likely to go private to improve efficiency through divesting value-reducing assets and reducing investment in negative net present value. Delisting may improve efficiency through the divestment of value-reducing assets and reduced investment in negative net present value in firms with agency conflicts between managers and dispersed shareholders. Therefore, they conclude that the most significant motivation for delisting is a reduction of the agency costs.

(Marosi and Massoud (2007) and Leuz (2008) analyzed US firms on the Main Market and found that voluntarily delisting firms are smaller and have lower free cash flows than those

firms that go private. They argue that firms decide to delist by their own request when the costs of being public exceed the benefits.

Renneboog (2007) analyzed the decision to go private in the UK during the period 1997-2003. The author found that shareholders obtain positive returns around the announcement of the delisting transaction through a Leverage Buyout (LBO), Management Buyout (MBO) or Management Buyin (MBI). The premium is determined by the tax benefits, incentive realignment and the undervaluation of the firm. They also show that the premium may vary depending on the ownership structure of the firm. Firms with higher levels of managerial ownership pay higher premiums. In contrast, the premium is lower in those firms held by outside shareholders, which is consistent with the greater managerial control in these firms.

1.3 Involuntary delisting

In this section, the aspects of involuntary delisting will be considered. Most empirical researches on this topic were conducted in the American market as the largest, most structured and regulated. Companies carry out compulsory delisting for two main reasons: they can either violate the stock exchange rules or show poor financial performance and experience financial distress.

A number of studies have analyzed the consequences of non-compliance with the rules of the stock market for involuntary delisting in terms of its effectiveness with respect to both good financial indicators and protection of investors' rights. The criteria for excluding it from the American stock exchanges are very strict and well detailed. Sanger (1990) studied delisting companies from the New York Stock Exchange and American Stock Exchange. The authors note that most delistings have occurred because of companies' failure to keep on track certain fixed values for financial indicators, such as minimum net income, number of shareholders or market value of shares. The authors also found that, in addition to the above, quantitative indicators and stock exchanges may also consider additional factors, such as a breach in accounting practices or ongoing conflicts of interest with creditors.

Chen and Schoderbek (1999) analyzed the reasons for compulsory delisting on a sample of 150 companies excluded from the American Stock Exchange between 1981 and 1992. By focusing on accounting information, they noted that 45.7% of the excluded companies did not violate accounting standards before delisting, while 31% violated these guidelines several times within five years prior to delisting. Only 21.7% of companies within a year after their first violation of accounting standards were excluded. The authors suggested that American Stock Exchange does not base its decision to exclude companies on a strict compliance with market or

financial directives, because some firms may violate these guidelines without delisting. Thus, in the delisting process the following aspects are taken into account:

1. The start of the bankruptcy procedure and/or litigation initiated by the shareholders.
2. The volume of trades and/or stock returns.
3. Opinion of the auditors.

Serrano (2010) compared the rules of compulsory exclusion from the list of traded stocks in two different markets: on the New York Stock Exchange and Toronto Stock Exchange. In the New York Stock Exchange, delisting is a self-regulatory process, while on the Toronto Stock Exchange there is an external regulator who participates in the delisting solutions. The author argued that self-regulation in the New York Stock Exchange reinforces a corresponding conflict of interest in the event of delisting: more serious and costly consequences are expected for investors in companies that delisted from the New York Stock Exchange than for those who invest in companies excluded from the Toronto Stock Exchange. According to Serrano's findings, self-regulating stock markets create a sub-optimal trading environment due to contradictions in the performance of financial market standards, while on the Toronto Stock Exchange external regulators have less flexibility in applying the rules. Thus, firms on the New York Stock Exchange should have a wider spread in financial performance than on the Toronto Stock Exchange. These negative effects were strengthened after 2006, when the New York Stock Exchange became a public company. Serrano confirmed these assumptions on a sample of 198 companies excluded from the New York Stock Exchange and 39 companies from the Toronto Stock Exchange between 2002 and 2009.

1.4 Over-the-counter markets

The situation when the company leaves the stock exchange, but this does not lead to a change of legal organizational form from public to private, is still less studied than the companies' decision to completely delist from the stock markets. Companies exclude their shares from the list of traded on the stock exchange and go to over-the-counter (OTC) markets, where their shares continue to be traded. Such a transition is called a "going dark decision".

OTC markets are the decentralized trading mechanisms, in which each trader searches for the best counterpart through private, and usually bilateral, negotiations. There are many types of OTC markets that differ in such functions as, for example, the exact process, by which each trader looks for a buyer. Also, OTC markets differ in the presence of intermediate traders, such as brokers, or by the nature of the traded goods. There are two main features that characterize all over-the-counter markets. First, traders set prices themselves, and different sellers and buyers

can trade the same product at different prices. Thus, over-the-counter markets are not competitive markets. Secondly, OTC traders have less information than traders working in other non-competitive but more centralized markets.

Despite the fact that the transition to over-the-counter markets is relatively fast and cheap, its result is similar to the decision of companies to complete delisting. Companies in their press releases most often use this advantage of leaving for OTC markets, like saving on a smaller or completely absent need for meeting the requirements of the securities commissions and regulators of the stock markets. After leaving for OTC markets, companies either have to write simplified financial statements, or do not have to publish annual, quarterly and any other types of reporting. The only requirement for companies is the minimum necessary trading conditions for the OTC market, where shares will be traded. Going to OTC markets allows the company at some stage to free itself from reporting obligations to investors, focus on long-term strategy and operations instead of fixing on short-term goals that can increase the cost of equity, but at the same time lower it in the long term. Nevertheless, there are various nuances and aspects that have been considered in some works.[6]

Marosi and Massoud (2007) and Leuz (2008) investigated the impact of Sarbanes–Oxley (SOX) Act of 2002 on delisting from stock markets. Sarbanes–Oxley Act is the new regulatory document, which determines the new procedures for all public companies. The impact of external control has already been confirmed in the work of Marosi and Massoud (2007). The authors found that companies that move to the OTC market have a greater share of insiders and a smaller share of institutional investors. They conducted a research on a sample of 261 US companies that delisted between 1996 and 2004. Comparing the periods before and after the adoption of the SOX law, they found that the number of companies that delisted after the adoption of the law increased significantly (101 companies carried out delisting in 2003 compared to 44 in 2002). Their results are consistent with the assumption that the costs associated with compliance with the rules of the exchange and the maintenance of trades are the main factors determining the decision of delisting.

The influence of SOX on the delisting decision is also confirmed in the work of Leuz (2008). Studying a sample of 480 companies that delisted from 1998 to 2004, the authors found that for smaller companies with not very high financial performance and low growth opportunities, the costs of meeting the requirements of the securities commission are particularly burdensome. As a consequence, such companies are most likely to switch to over-the-counter

[6] Going Dark, and Putting Blindfolds on Investors. *The New York Times*. Accessed February 20, 2017. Retrieved from http://www.nytimes.com/2013/06/14/business/securities-rules-can-leave-investors-in-the-dark.html?_r=0.

markets. To examine the adequacy of company management and external control, various factors of corporate governance were examined, such as: the number (or share) of independent directors, the existence of an independent CEO and chairman, and institutional shareholders. They found that the companies that carried out delisting have weaker management of the board of directors and less qualitative external control. These companies also have, on average, large incurred but not yet paid expenses (which is directly related to lower quality of accounting) and more serious problems with free cash flow. Thus, US studies have shown that delisting can mitigate the agency problem and managerial opportunism.

Therefore, during the process of studying both options of changing the organizational and legal form of activity, namely, full delisting and withdrawal to OTC markets, it can be concluded that within the framework of this work, attention will be focused on solving problems related to the identification of determinants in the case of full delisting. That is in the work the determinants of the companies' complete transition from a public organizational legal form to a private one will be considered, studied, analyzed and used in the empirical study and interpreted.

To understand the basics of the company's business process in the period before delisting, as well as during the exit from the stock market, the next section will consider the real cases of transition from a public to a private legal form. The study of the cases will allow to understand the internal motives of the company, which led to its final withdrawal from the stock market, and also to understand the existence of certain determinants of the delisting decision.

1.5 Case Studies: Delistings of Daisy Group and JSC "Lebedyansky"

Now two public-to-private transactions from London Stock Exchange and from the Russian Trading System Exchange will be reviewed. The theory behind the determinants of going-private transactions will be linked with the characteristics of the delisted companies. Moreover, the theoretical predictions will be analyzed on the real market examples.

Purchase of Daisy Group Plc by the consortium led by the CEO of the company

The company was founded by Matthew Riley in 2001. Daisy Communications Limited is a company that provides Internet and telecommunications services for small and medium-sized businesses. The company has grown rapidly due to the strategy of acquisition of competing companies in a similar sector. On July 1, 2009 the company Freedom4 Group Plc. announced the acquisition of Daisy Communications Limited, and subsequently the merged company was renamed to Daisy Group Plc. The company traded on the Alternative Investment Market (AIM)

of the London Stock Exchange for five years from 2009.[7] List of shareholders after the merger is presented in Table 1. In 2009, the total number of ordinary shares was 264 705 895. List of the shareholders before the delisting announcement is presented in Table 2.

Table 1. List of shareholders after the merger.

Shareholder	Type	Share
Matthey Riley	CEO	23.16%
Invesco Perpetual Life Limited	Independent Investment Manager	16.21%
Tosca Asset Management	Asset manager	12%
Eton Park Capital Limited	Investment organization	9.57%
Credit Suisse Group (Europe) Limited	Bank	6.11%
Gartmore	Investment management business	4.91%
Schroders plc	Asset manager	4.40%
Capital Group of Companies	Investment Management Organization	3.91%
Blackrock Inc	Asset manager	3.42%
Cazenove Capital Management Inc	Investment Management Organization	3.30%

Source: annual report of Daisy Group.

Table 2. *List of shareholders after the delisting announcement.*

Shareholder	Type	Share
Toscafund Asset Management LLP	Asset manager	28.52%
Matthey Riley	CEO	23.01%
Invesco Limited	Investment management company	22.21%
Host Europe (Bermuda) Limited	Hosting provider	13.60%
Woodford Investment Management	Investment management company	3.86%
Daisy Group plc Employee Benefit Trust	Employee Benefit Trust	3.41%

Source: annual report of Daisy Group.

In 2014 the company received a proposal from the consortium, which included Toscafund, Penta Capital and Matthew Riley, to sell the company for 185 pence per share, which

[7] Daisy Group: Yep, we're gonna eat you all up, Phoenix IT Group. *The Register*. Accessed February 22, 2017. Retrieved from https://www.theregister.co.uk/2015/05/27/daisy_formal_offer_for_phoenix_it_group.

totaled 494 million pounds, with a premium of 26 pence (16.4%) to the closing price of the company's shares trading on July 25, 2014 (the last day of the offer from the consortium).[8]

The Board of Directors consisted of six members: three were independent directors, and three were executive directors. Independent directors of the company considered this offer to buy out the shares to be honest and profitable, and similarly considered other holders of shares. The approval of the proposed transaction was received from 93.79% of the holders of shares, which under the laws of the UK (Squeeze-out Guide IBA Corporate and M&A Law Committee 2014) is sufficient for the repurchase of shares from minority shareholders.

The consortium led by the company's CEO, initiated the purchase and subsequent delisting. The company Chain Bidco Plc, which was independently owned by the consortium Toscafund, Invesco Limited and Matthew Riley, was founded. Peter Dubens, chairman of the board of directors, noted that for the shareholders, this deal was profitable, since at the time of the circulation of shares on the London Stock Exchange, the original value per share was 80 pounds. The company's value has grown from 200 million to 494 million pounds. Daisy Group was bought out at a multiplier of 11 EV/EBITDA, which brought a fairly large premium to shareholders. Thus, the company was bought by a consortium led by Matthew Riley, delisted through the management buyout and became private.

Besides this, Matthew Riley, CEO of the company, said that the share price could have been significantly reduced if the company had decided to increase the debt burden to implement its business scheme and takeover other companies in the industry. With private sources of financing more widespread in 2014, the company saw the decision to become private more economically advantageous.[9] The turnover by volume of shares dropped in 2014 almost by 40%, which was unacceptable for the company that wanted to increase more rapidly.

In the case examined, the company carried out a full delisting procedure to achieve the objectives of the strategy. When deciding on delisting, the management of the company in the long term considered the need to create a business worth 1 billion UK pounds with a turnover of 10 billion UK pounds. The company considered it necessary to achieve its goal through complete withdrawal from the stock market.[10]

Therefore, in this case the delisting of the company initiated by the CEO and the funds forming the consortium was considered. The main conclusion of this case is that the key role in

[8] Recommended cash offer for Daisy Group plc by Chain Bidco plc. *Penta Capital*. Accessed February 22, 2017. Retrieved from http://www.pentacapital.com/newsroom/cash-offer-daisy.

[9] Daisy Group chief to buy out company for £494m. *The Telegraph*. Accessed February 22, 2017. Retrieved from http://www.telegraph.co.uk/finance/newsbysector/mediatechnologyandtelecoms/11173619/Daisy-Group-chief-to-buy-out-group-for-494m.html.

[10] Daisy accepts £500m investor buyout to take group private. *Financial Times*. Accessed February 22, 2017. Retrieved from https://www.ft.com/content/88994e62-5853-11e4-a31b-00144feab7de.

the delisting decision was played by the unified consortium led by the key figure in the company, namely the general director. The type of controlling shareholder in this case played an important role in the decision of delisting. In addition, it can be concluded that the concentration of ownership in the hands of a certain shareholder has an important role in deciding on the transition to a private legal organizational form.

At the time of the delisting Daisy Group was almost seven times larger than the average company traded on AIM of London Stock Exchange (352 million pounds vs. 16 million pounds of net sales). In general, the smaller companies are expected to go private more often; however, delisting of Daisy Group was the opposite case.

While analyzing the case, it should be mentioned that there was a certain type of shareholders, who owned a larger number of shares in the company. So, the controlling stake was owned by two funds, as well as the CEO of the company. It is worth noting that this aspect could play an important role in the company's decision to delist. For example, in the article written by Martinez and Serve (2011), the situation was considered when the driving factors for delisting differed depending on the type of large shareholders. So, for companies with a large share belonging to the family or fund, there were cases of withdrawal from the stock market.

Moreover, in this paper the authors pointed that the liquidity is the primary benefit of going public. Therefore, if the liquidity associated with being listed deteriorates, firms will be more likely to go private. The turnover by volume of shares significantly dropped, which could influence the decision of the management to delist from the London Stock Exchange.

One important advantage of public status is the easier access to equity markets. When a firm has a reduced need for external financing, there are fewer benefits associated with being listed, because there is no need to spend extra costs maintaining the trade of shares, and the shareholders could decide to bring the company private. Thus, firms that do not have large investments in both tangible and intangible assets or future growth opportunities are more likely to go private (Bharath and Dittmar 2010). Authors posited an inverse relationship between capital expenditures and the probability of delisting. The company in the observed case invested only 1% of its net sales on capital expenditures in 2014, less than the mean of 11% in the observed years.

In addition, the company's board of directors owned more than 24% of the company's shares, primarily due to the fact that Matthey Riley's CEO owned 23%. In the study Weir et al. (2005) considered the situation when the greater the number of shares owned by the board of directors and institutional investors, the greater the probability of delisting. In this case, the board of directors owned 24% of the company's shares, and in total with shares of funds, the share

exceeded 60%, which correlates with the hypothesis of the study. In addition, the study noted that the fewer non-executive directors are on the board of directors, the greater the likelihood of delisting. The situation in this case contradicts the hypothesis of the authors of the study, since non-executive directors accounted for half of the company's board of directors.

Moreover, the company's operating performance is worse than the mean on the market (in 2013 EBITDA/Sales=0.13, while the mean on the market is 0.25). The hypothesis of Martinez et al. (2011) states that there is a negative relationship between the performance and the decision to go private, which is in line with the situation of Daisy Group.

Achleitner (2013) analyzed a hypothesis that the company is unlikely to delist if it has an active shareholder exercising control. As in the company Daisy Group the general director owned a large share, but the company carried out delisting, this hypothesis is not confirmed in this case.

Purchase of OJSC Lebedyansky by PepsiCo

The IPO of OJSC Lebedyansky took place on March 11, 2005. List of shareholders before the IPO is presented in Table 3. Since the company was located as an OJSC, it can be assumed that the company has become a pseudo-public company. The total number of shares of the company was 20 411 300. The IPO prospectus was registered on January 25, 2005 and was prepared for inclusion in the quotation lists of the trades of shares of the company registered on April 30, 2004, placed among existing shareholders. Thus, the IPO offered a stake in the existing shareholders of the company. It can be noted that the existing shareholders only reduced the stake in the company, no one sold its entire package. List of shareholders after an IPO is presented in Table 4. In its statement on the IPO the company noted that the sale of shares to "Russian and foreign institutional investors" is assumed.[11]

On February 14, 2005 the company entered into an agreement with "RTS Stock Exchange" on the listing of the company's shares. They were also placed on the MICEX. Road-show was held from February 28 to March 10, 2005. Based on its results, the buy-back price was set at $37.23 per share (3% below the upper boundary of the corridor), and the offer size was increased from 3 347 454 shares (16.4% of the total) to 4 061 850 (19.9% of the total). As a result of the IPO, the company raised more than 151 million US dollars. The company's capitalization was 760 million US dollars.

[11] "Tonus" for the stock exchange. "Lebedyansky" told about the forthcoming IPO. *Sostav.ru*. Accessed February 22, 2017. Retrieved from http://www.sostav.ru/news/2005/02/16/700/.

Table 3. *List of shareholders before the IPO.*

Shareholder	Position	Share
Nikolay I. Bortsov	Ex-director of Lebedyansky, a State Duma deputy from the Lipetsk single-mandate electoral district	35% (shares transferred to the trust management of LLC "Leasing Company" Juris")[12]
Yury N. Bortsov	Previously, he was the first deputy general director of the company, at the end of 2004 he was chairman of the board of directors	32%
Olga A. Belyavtseva	The deputy general director of the plant and the executive director of his distributor LLC "Company Assol"	19.9%
Konstantin An. Voloshin	Purchasing Director	10.1%
Dmitry An. Fadeev	Deputy Chairman of the Board of Directors	3%

Source: SKRIN.

Table 4. *List of shareholders after an IPO:*

Shareholder	Position	Share
Nikolay I. Bortsov	Ex-director of Lebedyansky, a State Duma deputy from the Lipetsk single-mandate electoral district	30% (shares transferred to the trust management of LLC "Leasing Company" Juris")
Yury N. Bortsov	Chairman of the board of directors	25.13%
Olga A. Belyavtseva	The deputy general director of the plant and the executive director of his distributor LLC "Company Assol"	18.4%
Konstantin An. Voloshin	Purchasing Director	3.2%
Dmitry An. Fadeev	Deputy Chairman of the Board of Directors	2.77%

Source: SKRIN.

It can be assumed that the shareholders considered the money raised by the IPO as the basis of personal welfare.[13] This was confirmed later by the director of public relations "Lebedyansky", saying that the shareholders "needed to capitalize on the achievements".[14] This

[12] The transfer of government securities to trust management may become mandatory only in cases of conflict of interest or the likelihood of its occurrence. *Garant.ru.* Accessed February 23, 2017. Retrieved from http://www.garant.ru/news/525333/.

[13] The market will drink all the juices. *Expert Online*. Accessed February 25, 2017. Retrieved from http://expert.ru/expert/2005/11/11ex-ipolebe_4926/.

[14] IPO is out of fashion. *Expert Online*. Accessed February 22, 2017. Retrieved from http://expert.ru/expert/2006/39/ipo_vyhoduat_iz_mody/.

goal of the IPO is logical for companies operating in stagnant industries, which was the industry of juice production in Russia at that time.

In the subsequent IPO years the company's revenue fell, and in 2007 it fell by 10% according to IFRS. The expansion and access to regional markets did not yield significant returns. With the increase in revenue, the net profit fell.[15]

On March 20, 2008, PepsiCo announced the purchase of a division of the company engaged in the production of juices of OJSC Lebedyansky. For PepsiCo this transaction was the only way to increase its market share in the production of juice in Russia from 2% to more than 30%. The results of Lebedyansky activities in 2007 turned out to be worse than the analysts were waiting for, and, moreover, the company's juice production line began to develop more slowly than the direction of baby food and mineral waters. Thus, this transaction helped PepsiCo to become a serious player in the Russian juice market, and Lebedyansky - to focus on a more profitable direction.[16]

Prior to the delisting the list of shareholders was the following as presented in Table 5[17]:

Table 5. *List of shareholders before the delisting.*

Shareholder	Position	Share
Nikolay I. Bortsov	Ex-director of Lebedyansky, a State Duma deputy from the Lipetsk single-mandate electoral district	30% (shares transferred to the trust management of LLC "Leasing Company" Juris")
Yury N. Bortsov	Chairman of the board of directors	25.13%
Olga A. Belyavtseva	The deputy general director of the plant and the executive director of his distributor LLC "Company Assol"	18.4%
Dmitry An. Fadeev	Deputy Chairman of the Board of Directors	2%
Management of the company		0.6%
Stocks on MICEX and RTS		23.87%

Source: SKRIN.

For the transaction, PepsiCo and Pepsi Bottling Company established a joint venture LLC Lebedyansky Holdings – 58.33% PepsiCo (through Pepsi-Cola (Bermuda) Ltd.[18]) and 41.67%

[15] PepsiCo and PBG intend to increase the stake in JSC Lebedyansky to 100%, after which delisting of shares is not excluded. *RBC*. Accessed February 25, 2017. Retrieved from https://quote.rbc.ru/news/company/20/03/2008/58c6c2159a79470e32a32e78.

[16] Lebedyansky poured off all the juices. *Expert Online*. Accessed February 25, 2017. Retrieved from http://expert.ru/expert/2008/12/lebedyanskiy_slil_soki/.

[17] A cheap deal. *Vedomosti*. Accessed February 23, 2017. Retrieved from http://www.vedomosti.ru/newspaper/articles/2008/04/01/kopeechnaya-sdelka.

Pepsi Bottling Company (through PepsiCo Holdings). The purchase of shares in OJSC Lebedyansky took place through this new joint venture. To delist the company under the law of the Russian Federation, PepsiCo must have a minimum of 95% of shares.[19]

August 29, 2008 PepsiCo and Pepsi Bottling Group (PBG) completed the acquisition of 75.53% of the shares of the Lebedyansky juice production unit, paying 1.4 billion dollars (88.02 dollars per share) for this stake. Analysts considered this proposal to be very generous: the companies of the soft drinks industry were trading at the time at a ratio of 10 EV/EBITDA, while Lebedyansky was sold at a multiplier of 17 EV/EBITDA, which meant a fairly large premium to shareholders.[20] In addition, the market capitalization of the entire company was 1.7 billion dollars at that time, while buyers estimated only its late division of juice production at 1.8 billion dollars. PBG President and CEO Eric Foss in the interview stated that the buyer companies consider the price to be fair, as they buy valuable assets: both tangible and valuable brands and talented management personnel.[21]

In September 2008, LLC Lebedyansky Holdings owned 81.1% of shares of OJSC Lebedyansky. At the same time, the company made an offer to minority shareholders of OJSC Lebedyansky to buy back 18.99% of shares by 8.4 billion rubles at the rate of 2 165 thousand rubles per share (85.33 dollars).[22,23] It should be noted that the price of buyout for minority shareholders was slightly lower than for majority shareholders. The potential premium for minority shareholders ranged from 18 to 30%.[24]

As a result, Lebedyansky Holdings LLC became the holder of 98.11818% of shares of OJSC Lebedyansky. After that, in January 2009 the company made a buyout of the remaining shares at the price of the September offer. As of November 10, 2009, Lebedyansky Holdings LLC has increased its stake in JSC Lebedyansky to 100%.

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[18] PepsiCo & CocaCola: neck and neck in Russia's juice market. *Marchmont*. Accessed February 23, 2017. Retrieved from http://marchmontnews.com/News/Features/3640-PepsiCo--CocaCola-neck-and-neck-Russias-juice-market.html.

[19] PepsiCo will drink all the juices from "Lebedyansky". *Kommersant.ru*. Accessed February 25, 2017. Retrieved from http://kommersant.ru/doc/869503.

[20] "Alfa-Bank": "Lebedyansky" announced a buyout by PepsiCo. *RBC*. Accessed February 28, 2017. Retrieved from https://quote.rbc.ru/news/20/03/2008/58b6eb109a794733033ad105.

[21] Interview: PBG President and CEO Erik Foss. *Sostav.ru*. Accessed February 28, 2017. Retrieved from http://www.sostav.ru/articles/2008/07/21/ko2/.

[22] PepsiCo has issued an offer to minority shareholders of the Lebedyansky. *Mergers.ru*. Accessed February 28, 2017. Retrieved from http://mergers.ru/news/PepsiCo-vystavilo-ofertu-minoritariyam-JeKZ-Lebedyanskij-10233.

[23]Commentary of BCS analyst. The price of the PepsiCo offer to the shareholders of Lebedyansky was 2165 rubles. *BKS Express*. Accessed February 28, 2017. Retrieved from http://bcs-express.ru/novosti-i-analitika/kommentariy-analitika-bks.-cena-oferty-pepsico-k-akcioneram-lebedyanskogo-sostavila-2165-rub.

[24] Minorities poured off most of the juices. *Kommersant.ru*. Accessed February 28, 2017. Retrieved from http://www.kommersant.ru/doc/1095475.

In January 2009, the company's shares have been excluded from the "Quotation List B" and were included in the section "Unlisted securities on RTS and MICEX".[25] At the beginning of March 2009 there were stopped tradings of the shares of JSC Lebedyansky on RTS and were finally suspended trading on the MICEX stock Exchange.[26] PepsiCo and PBG have stated the intention to delist from the beginning of the negotiations and after the acquisition of a stake in 75.53% in May 2009. The representative of the bank-organizer of the deal said that "the public company with the maintenance of the listing, accounting and requiring organizational and monetary expenses is not needed". OJSC Lebedyansky ceased to disclose information in February 2011, after the satisfaction of the FSFM of the corresponding application by the company. The company changed its organizational and legal form of a company on February 1, 2012.

The ownership hierarchy of Lebedyansky Holdings LLC currently has the following view (see Table 6):

Table 6. *The ownership structure of Lebedyansky Holdings LLC.*

Name	Location	Hierarchy level	Share of direct ownership*, %	Share of implied ownership, %
LLC Lebedyansky Holdings	Russia	1.00	100	—
Frito Lay Manufacturing llc	Russia	2.00	58,33	58.33
SVE Russia Holdings GmbH	Germany	3.00	100	58.33
Donon Holdings limited	Cyprus	4.00	50	—
PepsiCo Holdings, LLC	Russia	2.00	41.67	41.67
Pepsi Bottling Group GmbH	Germany	3.00	99	41.25
Prb Luxembourg International SARL	Luxembourg	4.00	50	—
Pr Beverages Cyprus (Russia) Holding limited	Cyprus	5.00	50	—
Pepsico, Inc.	USA	6.00	50	—

Source: SPARK.

* The share of direct ownership of the authorized capital of the company, which is at the previous level in the hierarchical chain. If the share is not exactly known, the range in which it is located is indicated, in which case a further calculation of the share of indirect ownership of the company becomes impossible.

[25] JSC "Lebedyansky". *Interfax Disclosure*. Accessed February 28, 2017. Retrieved from http://www.e-disclosure.ru/Index.aspx?eventid=282AV4D3vUSq8KYBmoPFzQ-B-B.

[26] Lebedyansky, common stock. *Investfunds*. Accessed March 25, 2017. Retrieved from http://stocks.investfunds.ru/stocks/247/.

Thus, in this case the situation of the buyout of the company and withdrawal from the stock market was considered. It is worth noting that this situation occurred in the developing market and during the crisis of 2008. The main conclusion that can be drawn is the fact that more than 75% of the shares belonged to individuals holding key positions in the company, and this influenced the decision to sell the company. JSC Lebedyansky was primarily a family company, since the controlling stake was owned by the Bortsov family, which most likely also played a role in the delisting decision. Therefore, the shareholders had sufficient strength to initiate the delisting through sale. The Bortsov family decided to conduct the IPO to capitalize their achievements. It is logical that, having received the proposal, which represented a significant award, the owners of the company agreed to sell it.

The successful financial results did not change the attitude of the management of the company to the delisting decision. The company invested about 23% of its sales on capital expenditure in 2006 and kept on increasing investments till the delisting. This aspect is opposite to the situation described by Martinez et al. (2010) that there is a negative relationship between the ratio of capital expenditures to sales and the decision to go private.

Moreover, operating performance of the company was steadily increasing from 2005 and showed 0.34 of EBITDA/Sales, which is a very good result for the leader of the industry. This is opposite to the hypothesis of Martinez that the increase in operating performance leads to the less probability of the delisting.

The company's board of directors lacked non-executive directors, and the chairman and deputy chairman of the board of directors owned a large stake. This situation was considered by Weir (2005). In addition, in this study, the authors investigated the hypothesis that delisted companies were more attractive for takeover (rather than another form of delisting) than companies remaining in the stock market, which corresponds to the situation from the above case.

Perhaps the owners of the company felt that their company is undervalued, since the fact that the company was sold for a much higher cost says that it is worth paying attention to (Sales ratio 17 EV/EBITDA, while the average market multiplier was 10 EV/EBITDA). Indeed, this situation was considered by the authors of various studies (Martinez and Serve 2011), (Renneboog 2007).

Summary

Analysis of the cases showed that companies traded on different stock exchanges and operated on different types of markets had both similar and different causes and results that affected the decision to switch from public to private legal organizational form.

In both cases, a large amount of shares belonged to a certain type of shareholders who directly took decisions, on which the further development of the company depended. In the first case, the delisting process was initiated by the company's CEO, who was supported by funds that owned large parts of shares. In the second case, the family company was acquired by a transnational corporation with a very high premium during the company's stagnation.

However, the situation of operating performance is similar for both companies. Previous researches assume that the lowering or poor operating performance leads to a delisting. In both cases the companies had increasing operating indicators and were among the leaders of the industries. Despite this fact, both of the companies delisted at the peak of its operating performance measures.

The contradictory situation is linked with the ratio of capital expenditures. Daisy Group invested only 1% of its sales, while the mean for the market was about 13%. The opposite situation was with Lebedyansky. The company invested almost 23%, however, it also delisted.

In addition, the company Lebedyansky took expert estimates of about 30% of juice production in the market, as well as the 6th largest juice producer in the world[27], while the company Daisy Group by the standards of the telecommunications market in the UK took a much smaller share. Perhaps the issue of the size of the company played a role in the decision on delisting because of the direct costs of maintaining the listing.

1.6 Hypotheses Formulation

The determinants of the going private decision are observed from the point of two different categories: the operational performance of the companies and the results of activity on the stock exchange.

To study the main question of this study more precisely, to identify the determinants of the companies' decision to move to a private organizational and legal form, the following hypotheses were selected:

Hypothesis 1 (Access to capital): There is a negative relationship between the ratio of capital expenditures to sales and the decision to go private.

One major benefit of having public status is the easier access to equity markets (Lasfer and Kashefi 2013). Consistent with this argument, when a firm has a reduced need for external financing, there are fewer benefits associated with being listed, and the majority shareholders could decide to bring the company private.

[27] Buying the company Multon and the brand Rich, Coca-Cola is trying to save the situation on the Russian juice market, analysts say. *RBC*. Accessed March 25, 2017. Retrieved from https://quote.rbc.ru/news/company/15/03/2005/58c6c1e89a79470e32a3183f.

The opportunity to tap public markets for equity capital is appealing for high growth firms with large current and future investments that may have limited access to other financing alternatives due to high leverage or high transactions costs and is a leading reason why firms go public (Weisbach and Kim 2008). Thus, firms that do not have large investments or future growth opportunities are more likely to go private (Bharath and Dittmar 2010).

Hypothesis 2 (Performance): There is a negative relationship between the performance and the decision to go private.

According to Leuz (2008), many firms go dark because managers want to conceal poor future prospects and/or financial distress. The likelihood that a firm will go private should increase with poor performance. Thomsen (2007) argued that inefficient firms may be more likely to be delisted either because they go bankrupt, or because they want to restructure. Thus, in this study it is posited that firms with weak performance will choose to go private because the risk of bankruptcy increases financial distress costs. In such a case, the firm cannot afford listing status or amortize previous listing costs.

Hypothesis 3 (Growth prospects): There is a negative relationship between firm's growth prospects and the decision to go private.

Jensen's argument about the importance of free cash flow is also linked to growth opportunities (Jensen 1986). Firms with low growth opportunities may spend the cash on negative net present value projects because there are limited opportunities for profitable investment within the firm's areas of operation. A number of studies have used different measures of growth opportunities. For example, sales growth was found to be significantly lower for firms going private by Lehn and Poulsen (1989). However, Opler (1993) and Halpern (1999) found no evidence that Tobin's Q is lower for firms going private. In the thesis it is assumed that firms are more likely to go private if they are characterized by lower growth prospects.

Hypothesis 4 (Liquidity of Shares): There is a negative relationship between stock liquidity and the decision to go private.

Amihud (1998), Bolton and Von Thadden (1998) and Boot, Gopalan and Thalor (2006) in their papers found a liquidity of share trading to be a primary benefit of going public. As a consequence, if the liquidity benefit associated with being listing deteriorates, firms will be more likely to go private. Further, share trading on an exchange is cheaper compared to bilateral trades, and this liquidity benefit (which is an increasing function of the trading volume) leads companies to go public.

Therefore, it is hypothesized that there is an inverse relationship between stock liquidity and the probability of voluntary delisting. Based on the theoretical implications of the models,

liquidity is, therefore, a benefit to being a public firm that is considered in the choice between public and private ownership.

In addition to the Hypothesis 4 described above, the following situations of undervaluation, agency problem, crisis years and direct listing costs will be studied in this paper.

Element related to the more traditional explanations for going private is a free cash flow. First, free cash flows are cash balances in excess of what is required to fund projects with positive net present values (Jensen 1986). Firms with high free cash flows, therefore, incur high agency costs because the funds could be returned to shareholders in the form of higher dividends or used to repurchase stock, which again increases returns to shareholders. Evidence about the role of free cash flow in the decision to go private is mixed. Lehn and Poulsen (1989) find evidence that firms going private had higher free cash flows whereas Opler (1993) reported an insignificant relationship.

During the crisis years companies face a difficult situation due to tough and unstable market conditions. The main purpose of the companies is to survive and overcome the difficulties imposed by the environment. Therefore, companies cannot afford extra costs of public status and are more likely to go private during difficult years.

Four categories of costs are incurred by public firms:

1. Fixed costs following IPOs, including annual listing fees (imposed by exchanges and regulatory bodies), trading costs (i.e. brokerage fees) and information production costs (i.e. audit and publication costs related to disclosure).
2. Compliance costs to meet regulatory and corporate governance standards.
3. Indirect costs related to the firms' undervaluation.
4. Financial distress costs due to poor performance.

Kim and Lyn (1991) investigated the size of the company. In any public company, there are operating costs, such as those associated with offering a large buyout price in the delisting process, and with the need to offer minority shareholders – a decent price, so that the veto to affect a deal is not used. These costs are likely to increase with the size of the firm and the number of shareholders. In addition, the degree of asymmetry of information, and therefore the underestimation of the value of the company is likely to be related to the size of the firm. For example, Verrechia (1984) and Buzby (1975) proved that the degree of disclosure of financial information has a positive relationship with the size of the firm. That is, the larger the company, the more expensive the process of disclosing financial information.

Martinez and Serve (2011) followed similar results. In their work, they noted the results of DeAngelo (1984), according to which the listing generates annual expenses through

registration, bidding and other costs of servicing the stockholders. Since large firms may be more efficient at amortizing these fixed costs, most likely small businesses will be more motivated to implement delisting when the direct costs of maintaining the listing increase.

Managers and owners of the company can have richer and more reliable insider information than the potential investors. Investors can only estimate the value of the company and cannot know the true value of the company. It is possible that management, which has superior inside information and knows the true distribution of future returns, realizes that the share price is undervalued in relation to the true potential of the firm. Ventoruzzo (2010) argued that delisting will occur when market prices do not fully reflect the real value of a firm. Under such circumstances, the reduction of the cost of capital may not compensate the costs of staying public. Hence, undervaluation will create an incentive for a firm to exit the public market. In this case, the objectives of controlling shareholders and managers would be to hide the real value of the firm and avoid opportunity costs (i.e. adverse selection costs) related to undervaluation.

Testing the abovementioned hypotheses would allow drawing conclusions, whether the following aspects in Figure 2 serve as determinants for the decision to go private:

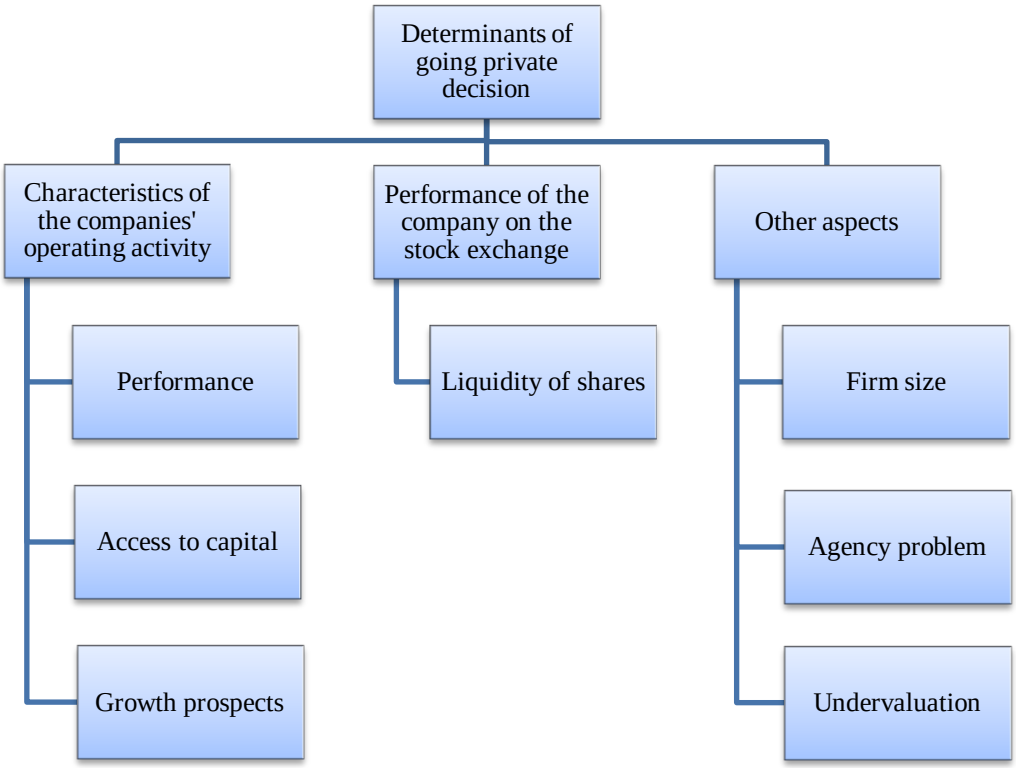

Figure 2. *Determinants for the decision to go private. Source: created by the author.*

CHAPTER 2. EMPIRICAL STUDY

2.1 Research Design

Statistical and econometrical analysis is used in this master thesis. According to the analysis of the modern and most relevant empirical researches, these instruments are the most adequate for answering the main research question.

In the latest researches authors started using the survival models (mostly Cox proportional hazard model), which in economic studies are called duration models. This model shows good results of establishing the determinants of the going private decision by the company. Bharath and Dittmar (2010) used a Cox proportional hazard model, which determined the hazard (probability) a firm would go private given its initial firm characteristics and their evolution over time, relative to other firms. In doing so, authors revealed many novel insights into why firms go private and shed light on the relevant costs and benefits of being a public firm. Kashefi-Pour and Lasfer (2011) used Cox model to investigate the determinants of the delisting decision.

Therefore, the technique chosen for this master thesis is Cox proportional hazard model. This model takes into account the observation of the companies' decision-making process during the whole process of its listing on the stock exchange. In this model any public firm is studied as a subject to binary outcome at the end of each year: it is either delisted or not.

Survival analysis takes into account the fact that each company has its own IPO date and entry time into the study. The fact that the follow-up period varies across companies is therefore not a problem. Further, if company does not delist during the study period, then the last follow-up time is recorded and the data is considered right-censored, unlike in logit model. Survival analysis techniques are specifically designed to properly handle censoring.

Survival model, unlike logit/probit model allows not to lose important information contained in year-to-year outcomes. In logit/probit models the results will be optimal when the number of delisted companies will be as close as possible to the number of companies stayed public. Due to the fact that there are in reality more companies that stayed public and did not delist, the logit/probit model limits the number of companies included in the sample. This situation is not a problem for the Cox proportional hazard model, as the results are handled by software in a proper way even if the number of public companies is not equal to gone private companies. Moreover, Cox model is preferred to a logistic model, since the latter one ignores survival time and censoring information.

So, Cox model is very useful for determining the factors which are related to the companies' decision to go private.

Hazard rate in this model is a conditional probability of a firm being delisted in a given year (given that it did not do so in the previous years). Thus, hazard rate is an independent variable in Cox proportional hazard model. The model itself looks as follows:

$$h_i(t) = h_0(t)\exp(\beta_1 X_{i1} + \beta_{i2} X_{i2} + \cdots + \beta_n X_{in}),$$

Where $h_0(t)$ is the baseline hazard. If all covariates (X_{in}) are equal to zero, then the interpretation of the baseline hazard is thus the hazard of a company. It is estimated from the data.

$\beta_1, \beta_2, \ldots, \beta_p$ are regression parameters estimated by the model;

$X_{i1}, X_{i2}, \ldots, X_{in}$ is the covariate value for covariate 1 for company I;

Time t is the duration of the company on a stock exchange in year t.

The hazard rate will be calculated automatically by statistic package Stata upon entering the following inputs:

- Binary variable, which is equal to 1, if company went private, 0 – if did not.
- Duration – number of time periods passed from the beginning of the study.

In this case binary variable will take on a value 1 if a firm went private or 0 if it stayed public. Duration is measured in years and for each observation it will equal the number of years passed since the beginning of the study (in this thesis the data is collected on firms beginning 2005). Mathematically, hazard ratio at the beginning of some year t will be equal to the number of firms that were delisted in year t divided by the number of public firms at the start of year t:

$$\text{hazard ratio} = \frac{\text{number of firms that delisted in year t}}{\text{number of public firms at the start of year t}}$$

The coefficients (βs) and hazard ratios are estimated using statistical software Stata, which will estimate them using maximum likelihood.

The Cox regression estimates the coefficient vector beta. The Cox proportional hazard model does not impose any restriction on $h_0(t)$, the baseline hazard. Cox's partial likelihood estimator provides a way of estimating β without estimating $h_0(t)$. A positive coefficient on variable x in the hazard model implies that a higher x is linked to higher hazard rate and thus a lower expected duration. The hazard ratio, which is simply e^{β}, tells how much the hazard (i.e. instantaneous risk) the going private event increases for a unit change in the independent variable. In simple terms, a 1 unit increase of x_j leads to an increase in linear combination of $x'\beta$ on coefficient β_j and an increase of risk function in every point t in e^{β_j} times (Ratnikova and Furmanov 2014):

$$e^{\beta_j} = \frac{h_0(t)\exp(x'\beta + \beta_j)}{h_0(t)\exp(x'\beta)}$$

More specifically, results of the Cox proportional hazard model have the following interpretation presented in Table 7. A positive coefficient implies hazard rate greater than 1, which means lower duration for the going private transaction and higher risk for the event to happen. Negative coefficient implies hazard rate from 0 to 1, which means higher duration for the going private transaction and lower risk for the event to happen.

Table 7. *Interpretation of coefficients and hazard rates in Cox model.*

Coefficient	Hazard rate	Interpretation
Positive	>1	Lower duration for the delisting, higher hazard rates (more likely for the event to happen)
Negative	(0,1)	Higher duration for the delisting, lower hazard rates (less likely for the event to happen)

Source: created by the author.

Cox regression is the prediction of risk of the event occurrence for the object under consideration and the assessment of the influence of predetermined independent variables (predictors) on this risk. Risk is considered as a function of time. The object (observation) is a company, for which the risk of an event is projected. This object is under surveillance and therefore is at risk: at any time, an event may occur with it, in which case it is eliminated from the risk group. The companies delisting is considered as an event.

Moreover, in order to check the consistency of the results of Cox proportional hazard model the three parametric models are used:

1. Exponential model.
2. Weibull model.
3. Gompertz model.

Parametric models can assume different parametric forms for the hazard function, presented in Table 8.

Table 8. *Parametric models functions*

Parametric model	Hazard function $\boldsymbol{h(t\|x)}$	Survival function $\boldsymbol{S(t\|x)}$
Exponential	$\exp(x'\beta)$	$\exp(-t\exp(x'\beta))$
Weibull	$pt^{p-1}\exp(x'\beta)$	$\exp(-\exp(x'\beta)\,t^p)$
Gompertz	$\exp(\gamma t + x'\beta)$	$\exp(-\gamma^{-1}\exp(x'\beta)(\exp(\gamma t) - 1)$

Source: created by the author.

Independent Variables Description

First of all, a ratio of Capital Expenditures to net sales (CAPEX_Sales) was included in the model. This measure controls the capital market access for the companies. This variable describes the activity of the company in terms of investments in property, plant and equipment and machinery. Low ratio might mean that access to capital is less important for a company and that it would more likely go private. It is assumed that for firms that do not have large investments or future growth opportunities the delisting is more likely to happen. Therefore, it is expected to have a negative relationship between the variable and the conditional probability of a firm being delisted.

Secondly, the variable OpPerf was also included to control the operating performance of the company. The poor future prospects and/or financial distress can motivate the managers of the company to go private in order to hide poor financial results. Moreover, Thomsen and Vinten (2007) argued that inefficient firms may be more likely to be delisted, either because they go bankrupt, or because they become a target for restructuring. Thus, it is posited that firms with weak performance will choose to go private because the risk of bankruptcy increases financial distress costs. In such a case, the firm cannot afford listing status or amortize previous listing costs. The variable is defined as EBITDA divided by Total Assets. It is composed of Asset Turnover multiplied by Operating Margin.

The EBITDA Return on Assets ratio measures the amount of EBITDA profit generated in comparison to total assets. This ratio measures how efficiently a company is generating EBITDA. This means capital structure, different tax rates, and different CAPEX costs would not affect comparisons between companies. The higher the EBITDA Return on Assets percentage, the greater the ratio of EBITDA profit to the company's total assets. Therefore, a negative relationship between this ratio and the conditional probability to go private is assumed.

Thirdly, sales growth opportunities are included in the model with a variable SalGr. A number of studies have used different measures of growth opportunities. For example, sales growth was found to be significantly lower for firms going private by Lehn and Poulsen (1989). However, Opler (1993) and Halpern (1999) found no evidence that Tobin's Q is lower for firms going private. In this master thesis the variable is measured by $((\text{Current Year's Net Sales} / \text{Net Sales four years ago, reduced to a compound annual rate}) - 1) * 100$ and the negative relationship between this variable and the conditional probability of going private is assumed.

Another variable included in the model is the log of average annual number of transactions with shares (turnover by volume). The previous research studies by Amihud (1998) and Boot, Gopalan and Thalor (2006) show that liquidity of share trading is a primary benefit of

going public. Thus, when this benefit deteriorates, the likelihood of a firm going private increases and the negative relationship between turnover by volume and conditional probability of being delisted is expected.

The decision to go private was driven by a perception that the market had not accurately valued the companies in terms of their share prices. An important theme running through the comments made about the perceived undervaluation is that it had occurred over a period of time and was expected to persist. Undervaluation may, therefore, be defined in terms of the deterioration of the company's share price relative to firms remaining public. This will, therefore, hamper management's ability to use the expected benefits available to quoted companies. Its main consequence is the very limited access to the funds required to finance either expansion or acquisitions. The price-to-book ratio (which is equal to share price divided by book value per share) was included as a proxy for undervaluation and undervalued companies are assumed to exit the public market.

In case of large undistributed free cash flow, conflicts between shareholders and managers may take place. This happens because the presence of high free cash flows may give managers a possibility to spend cash on unprofitable and low potential projects. Therefore, the going private transaction consolidates the ownership and management. Hence, companies with large amount of undistributed free cash flows are more likely to go private and a positive relationship between FCF and the conditional probability of going private is expected. Free Cash Flow (FCFrat) represents the cash earnings net of capital expenditures and total dividends paid of the company, for the 12 months ended, divided by net sales.

Further, a variable describing the firm size is included in the model. The variable LnSales is equal to the natural logarithm of Net sales or Revenues (gross sales and other operating revenue less discounts, returns and allowances). Firm size measures how the company is able to maintain public status through amortizing fixed costs of the listing procedure. That is, the larger the company, the more expensive the process of disclosing financial information but the company is better at amortizing these fixed costs.

Crisis: a dummy variable that takes the value of 1 from 2007 to 2008 and zero otherwise (2005-2007, 2009-2016). The crisis period creates more financial constraints and more difficulties for firms. Raising the funds needed for a buyout becomes extremely difficult, which negatively affects the probability of a voluntary delisting (Croci 2014).

The list of independent variables with their description (formulas for computation) and expected sign is provided in Table 9.

Table 9. *Description of the independent variables.*

Variable	Description	Sign
CAPEX_Sales	Capital Expenditures/Sales	-
OpPerf	EBITDA/Total Assets = (EBITDA/Net Sales) * (Net Sales/Total Assets)	-
SalGr	((Current Year's Net Sales/Net Sales four years ago, reduced to a compound annual rate) – 1) * 100	-
Liq	Log of Annual number of Transactions (Turnover by Volume)	-
PB	Share Price/Book Value per Share	-
FCFrat	Free Cash Flow/Sales	+
LnSales	Log Sales	-
Crisis	Dummy variable. 1 – if 2007 or 2008 years, 0 - otherwise	No direction of relationship

Source: created by the author.

2.2 Sampling and Data Collection

The majority of the studies examining the decision to go private include companies delisted mostly from the US stock exchanges in the sample. However, the access to the statistics of the listings on the American stock exchanges is rather limited. It requires a special access to the databases and can be obtained only with the permission of the stock exchange.

Moreover, the data on the delistings is not published by any stock exchange. Most of the stock exchanges provide information for the listing companies, while the data for the going private transactions is very limited. The collection of the representative sample from stock exchanges of the US by searching and analyzing the relevant news about delisting is very complex due to the large amount of information. Analyzing the different statistical resources of the most well-known stock exchanges of Europe, it was decided to concentrate on the companies listed on the London Stock Exchange due to its size and the availability of the published information. It should be mentioned that in this research only voluntary going private transactions are studied. Thus, in the final sample only the companies that went private voluntarily were included.

Company Data Selection

2.2.1 Alternative Investment Market

The list of traded companies on the London Stock Exchange was obtained from the exchange's official statistical web-page. Companies that were listed at some point between 2005 and 2016 were selected for this study. Initially the total number of companies on the AIM was

1555 of which 787 have already delisted from 2005 and 768 were still listing on the stock exchange. The data for independent variables was taken from Thomson Reuters Datastream, Thomson Reuters Eikon databases and annual reports of the companies.

The total number of firm-years observations was almost 19000. Some of the companies dropped out of the sample because for some of the individual variables there were missing data. If the data for any of the variables was impossible to collect, companies were excluded from the sample. Firm-year observations, for which the data was absent for at least one of the years, were excluded from the sample. After that the companies, which went private in order to transfer from AIM to Main Market of the London Stock Exchange, and investment trusts companies were excluded. Some of the companies published their annual report even after the delisting transaction. Therefore, such figures were excluded from the model, because the data from such reports cannot have predictive power over what had already happened.

In the end, the final sample contained 4768 firm-year observations representing 613 unique firms of which 285 delisted and 328 were still public by the end of 2016. These companies perform in different industries. The Figure 3 represents the distribution of the companies across industries. 24% of these companies represent industrials (according to Industry Classification Benchmark)[28], 19% of the companies represent the technology industry, 16% of the companies work operate in consumer services industry, 13% of the companies are from financial industry, 9% of the companies are from healthcare industry.

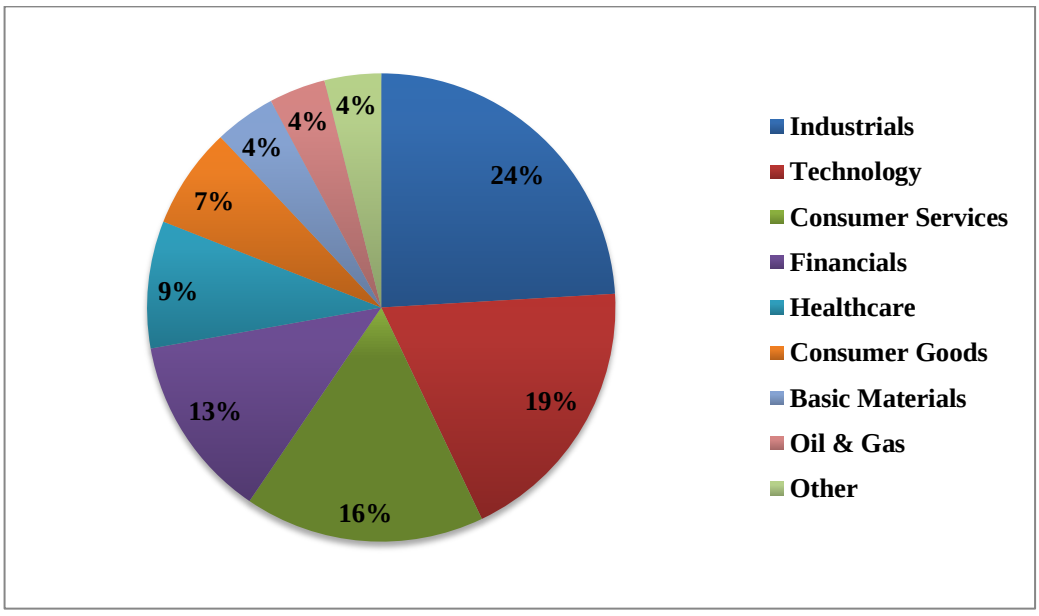

Figure 3. *Distribution of the AIM companies across industries. Source: created by the author.*

[28] Industry Classification Benchmark (ICB). *ICB.* Accessed March 25, 2017. Retrieved from http://www.icbenchmark.com.

Descriptive Statistics

In the period between 2005 and 2016 an average listed company on AIM had sales of 69 million UK pounds, price-to-book ratio 2.662 and free cash flow to sales -0.458. It spent 27% of sales on capital expenditures. The average growth of sales for such companies was 11.574% and operating performance was -0.089, which means that, on average, the companies were growing but the operational performance was quite low. The full results of the descriptive statistics are presented in Table 10.

Table 10. *Descriptive statistics for the variables of AIM companies*

Variable	Mean	Std. Dev.	Min	Max
Duration	5.513	3.423	1	12
OpPerf	-0.089	0.801	-3.732	5.121
Sales [1]	69 030	454 133	30	4 991 500
SalGr	11.574	46.897	-167.850	299.511
CAPEX_Sales	0.274	1.431	0	27.509
Turnover volume [2]	70 225	454 133	1.1	20 800 000
FCFrat	-0.458	5.623	-49.571	69.252
PB	2.662	7.315	-92.851	92.721

1 - in thousands of UK pounds
2 – in thousands of shares

Source: created by the author.

The results of testing for pairwise correlations between all the independent variables are presented in Table 11. A sample of all firms was used to calculate the coefficients. The strongest significant positive correlation (0.327) is between size of the companies and the operating performance ratio, which is the highest ratio in terms of absolute values. Large companies tend to have better operating performance. A significant negative correlation (-0.307) takes place between free cash flow ratio and the ratio of capital expenditures to net sales. Companies, which have large undistributed free cash flows, do not spend a lot of it on capital expenditures. Also, larger companies have lower capital expenditures (-0.230).

Table 11. *Pairwise correlations between the independent variables.*

	CAPEX_Sales	PB	FCFrat	LnSales	OpPerf	SalGr
CAPEX_Sales	1					
PB	0.007 (0.610)	1				
FCFrat	-0.307*** (0.000)	0.001 (0.933)	1			
LnSales	-0.230*** (0.000)	-0.045*** (0.002)	0.194*** (0.000)	1		
OpPerf	-0.036** (0.014)	0.014 (0.331)	-0.074*** (0.000)	0.327*** (0.000)	1	
SalGr	0.041*** (0.005)	0.037** (0.011)	-0.058** (0.0001)	0.063*** (0.000)	0.100*** (0.000)	1

*** denotes significance at 1% level

** denotes significance at 5% level

* denotes significance at 10% level

Source: created by the author.

The characteristics of companies that went private and those that stayed public by the end of 2016 were compared. Student's t-tests were conducted to assess the statistical significance of differences between the two samples. The results of the difference-in-means testing are presented in Table 12.

Table 12. *Difference-in-means test results.*

	Firms that went private	**Firms that stayed public**	**Difference**
CAPEX_Sales	0.168	0.310	0.142***
PB	2.474	2.725	0.251
FCFrat	1.141	-1.001	-2.141***
Sales[1]	54 543	73 946	19 403**
OpPerf	-0.286	-0.022	0.265***
Operating Margin	-1.540	-0.910	0.630***
Asset Turnover	1.258	1.219	-0.038
SalGr	-8.182	18.278	26.459***
Turnover volume[2]	81 965	66 241	-15 724
Firm-year observations	1208	3560	

1 - in thousands of UK pounds
2 – in thousands of shares

*** denotes significance at 1% level

** denotes significance at 5% level

* denotes significance at 10% level

Source: created by the author.

Firms that went private spent less on capital expenditures and had lower sales growth measures. Moreover, companies that stayed public, on average, were larger because they had larger sales. The operating performance results for companies stayed public were higher, than of those that went private. Decomposing operating performance into operating margin and asset turnover shows that the difference originates from the operating margin (-1.540% for delisted firms versus -0.910% for control firms). There is no significant difference in mean of price-to-book ratio, turnover volume of shares between two groups. However, these results need to be confirmed by an empirical study before any definitive conclusions can be made.

2.2.2 Main Market

For the Main Market companies, the companies that were listed on the London Stock Exchange for the same period were also selected. Initially the total number of companies on the Main Market was 1754, of which 884 have already delisted from 2005 and 870 were still listing on the stock exchange. The data for independent variables was taken from Thomson Datastream, Thomson Reuters Eikon databases and annual reports of the companies. The total number of firm-years observations was almost 18000. Again some of the companies were excluded, because there were no data for some of the variables in databases and the reports.

The same procedure of collection the data as with AIM was repeated, and firm-year observations, for which the data was absent for at least one of the variables in the model, were eliminated. In the end, the final sample contained 6276 firm-year observations representing 799 unique firms, of which 435 delisted and 364 were still public by the end of 2016. The Figure 4 represents the distribution of the companies across industries. 27% of these companies represent industrials, 20% of the companies represent consumer services industry, 15% of the companies are from financial industry, 11% of the companies are technological companies, while another 9% are companies producing consumer goods.

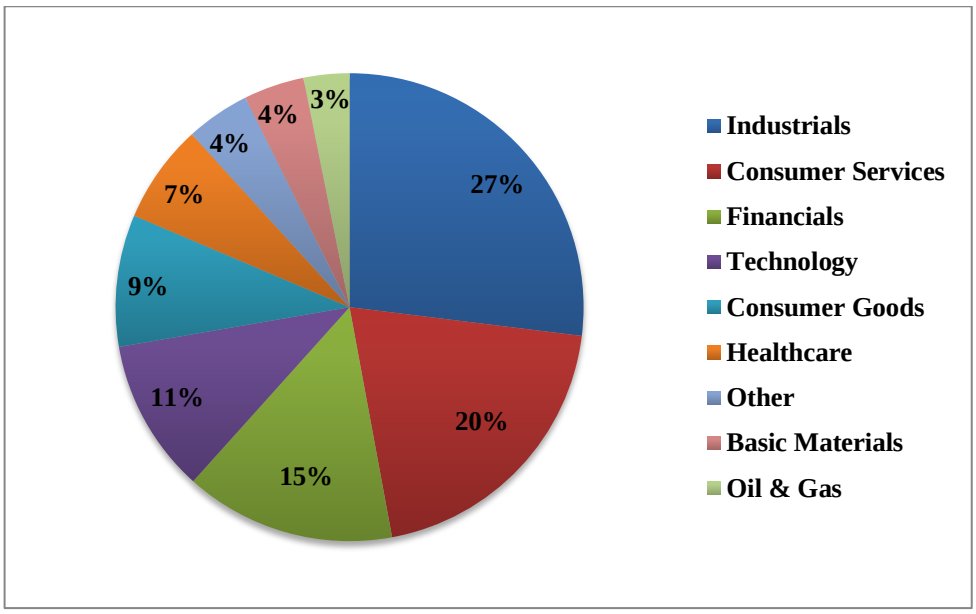

Figure 4. *Distribution of the Main Market companies across industries. Source: created by the author.*

Descriptive Statistics

In the period between 2005 and 2016 an average listed company on Main Market had sales of 3.3 billion UK pounds, price-to-book ratio 2.743 and free cash flow to sales -0.106. It spent 12.7% of sales on capital expenditures. The average growth of sales for such companies was 5.178% and operating performance was -0.082, which means that, on average, the companies were also growing but the operating performance was negative. The full results of the descriptive statistics are presented in Table 13.

Table 13. *Descriptive statistics for the variable of Main Market companies.*

Variable	Mean	Std. Dev.	Min	Max
Duration	5.656	3.451	1	12
OpPerf	-0.082	0.902	-1.962	1.765
Sales [1]	3 319 809	16 300 000	45	362 000 000
SalGr	5.178	28.634	-100	914.72
CAPEX_Sales	0.127	0.617	3.00e-05	19.843
Turnover volume [2]	593 513	2 877 341	2	92 600 000
FCFrat	-0.106	1.059	-29.725	15.987
PB	2.743	4.088	-14.95	38.97

1 - in thousands of UK pounds
2 – in thousands of shares

Source: created by the author.

The results of testing for pairwise correlations between all the independent variables are presented in Table 14. A sample of all firms from the Main Market was used to calculate the

coefficients. The strongest significant positive correlation (0.396) is between size of the companies and the operating performance ratio. Large companies tend to have better operating performance. A significant negative correlation (-0.540) takes place between free cash flow ratio and the ratio of capital expenditures to net sales, which is the highest correlation value in terms of absolute values. Companies, which have large undistributed free cash flows, do not spend a lot of it on capital expenditures.

Table 14. *Pairwise correlations between the independent variables.*

	CAPEX_Sales	PB	FCFrat	LnSales	OpPerf	SalGr
CAPEX_Sales	1					
PB	-0.052*** (0.000)	1				
FCFrat	-0.540*** (0.000)	0.001 (0.925)	1			
LnSales	-0.155*** (0.000)	0.062*** (0.000)	0.255*** (0.000)	1		
OpPerf	-0.036*** (0.005)	0.059*** (0.000)	0.206*** (0.000)	0.396*** (0.000)	1	
SalGr	-0.023* (0.070)	0.082*** (0.000)	-0.019 (0.134)	-0.026** (0.039)	0.048*** (0.000)	1

*** denotes significance at 1% level

** denotes significance at 5% level

* denotes significance at 10% level

Source: created by the author.

The characteristics of companies that went private and those that stayed public on Main Market by the end of 2016 were also compared. The results of the difference-in-means testing are presented in Table 15.

Table 15. *Difference-in-means test results.*

	Firms that went private	**Firms that stayed public**	**Difference**
CAPEX_Sales	0.153	0.115	-0.038**
PB	2.389	2.898	0.509***
FCFrat	-0.196	-0.066	0.129***
Sales [1]	758 682	4 446 987	3 688 305***
OpPerf	-0.514	0.107	0.856***
Operating Margin	-1.762	0.143	1.905***
Assets Turnover	1.011	0.983	-0.029

SalGr	-1.938	8.311	10.249***
Turnover volume [2]	136 593	794 608	658 015***
Firm-year observations	1918	4358	

1 - in thousands of UK pounds
2 – in thousands of shares

*** denotes significance at 1% level

** denotes significance at 5% level

* denotes significance at 10% level

Source: created by the author.

Firms that went private spent more on capital expenditures and had lower sales growth measures. Moreover, companies that stayed public, on average, were larger in terms of net sales value. The operating performance results for companies stayed public were higher, than of those that went private. The difference comes from operating margin (0.143 for companies stayed public and -1.762 for delisted companies). Companies that delisted from the Main Market on average had lower price-to-book ratios, free cash flows and were less liquid on the market, as they had lower turnover by volume. Again these results need to be confirmed by an empirical study to make any exact conclusions.

2.2.3 Summary of Data Description

The companies of both markets mostly operate in the same industries. Largest share of both markets companies operates in industrials. The descriptive statistics of the variables for both AIM and Main Market companies is presented in Table 16. Main Market companies, on average, stayed longer on the stock exchange. The operating performance of the companies, on average, was almost the same and negative for companies of both markets. Companies on the Main Market are much larger than companies on AIM in terms of generated net sales. The sales growth figure, on average, is larger for the companies on AIM because there are young and growing companies, which are still developing. The Main Market companies are more stable in the sales growth figures and for such large companies the sales growth number is smaller because they have already passed the period of high upswings of sales. Companies on AIM, on average, are investing in capital expenditures almost twice more than companies on Main Market. Again for growing companies these investments can be described by the fact that they are still developing their business. Turnover volume of share trading, as well as free cash flow ratio and price-to-book ratio is higher for Main Market companies.

Table 16. *Descriptive statistics of variables of companies on AIM and Main Market.*

Variable	AIM	MM
Duration	5.513	5.656
OpPerf	-0.089	-0.082
Sales [1]	69 030	3 319 809
SalGr	11.574	5.178
CAPEX_Sales	0.274	0.127
Turnover volume [2]	70 225	593 513
FCFrat	-0.458	-0.106
PB	2.662	2.743

1 - in thousands of UK pounds
2 – in thousands of shares

Source: created by the author.

2.3 Empirical Results and Discussions

In this section, different descriptive analyses and modeling techniques are used. There are three parametric models, which were built for the purpose of determining the factors related to the company's decision to go private. The final model, which is used for the interpretation of the obtained results, is a semi-parametric Cox proportional hazard model.

2.3.1 Alternative Investment Market

The description of the sample made for the modeling is provided in Table 17. It can be seen again that the number of subjects is 4768 and time at risk is 26340, which equals the sum of all the observations' years included in the sample. Each of the observations has been observed between 1 and 12 years. The number of failures (delistings) is equal to 1208 and consequently 25% of all the companies.

Table 17. *Sample description.*

		[----------Per subject----------]			
Category	Total	Mean	Min	Median	Max
no. of subjects	4768				
no. of records	4768	1	1	1	1
(first) entry time		0	0	0	0
(final) exit time		5.512794	1	5	12
subjects with gap	0				
time on gap if gap	0				
time at risk	26285	5.512794	1	5	12
failures	1208	0.2533557	0	0	1

Source: created by the author.

The incidence rate is presented in Table 18. It equals to 0.046, which is the incidence rate of the delisting of all time at risk.

Table 18. *Incidence rate description.*

				[----------Survival time----------]		
	Time at risk	Incidence rate	No. of subjects	25%	50%	75%
Total	26285	0.0459578	4768	6	-	-

Source: created by the author.

The smoothed hazard estimate is presented on the Figure 5. The hazard rate is going down particularly over the periods from 4 to 10. As the time goes on, companies are less likely to go private from the AIM of the London Stock Exchange.

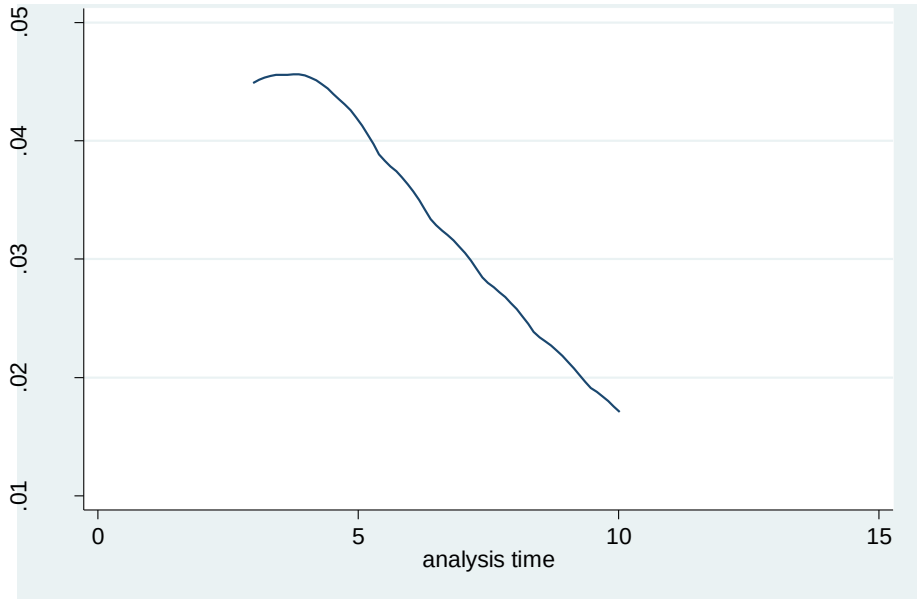

Figure 5. *Smoothed hazard estimate. Source: created by the author.*

On the Figure 6 the cumulative hazard estimate is presented. It is increasing over time and shows the cumulative estimates. It takes the maximum number at the end of the 12th observed year and the cumulative hazard estimate equals to 0.42. The hazard rate is steeper for the first 6 years of observation. Therefore, the risk of delisting is higher during the first 6 years.

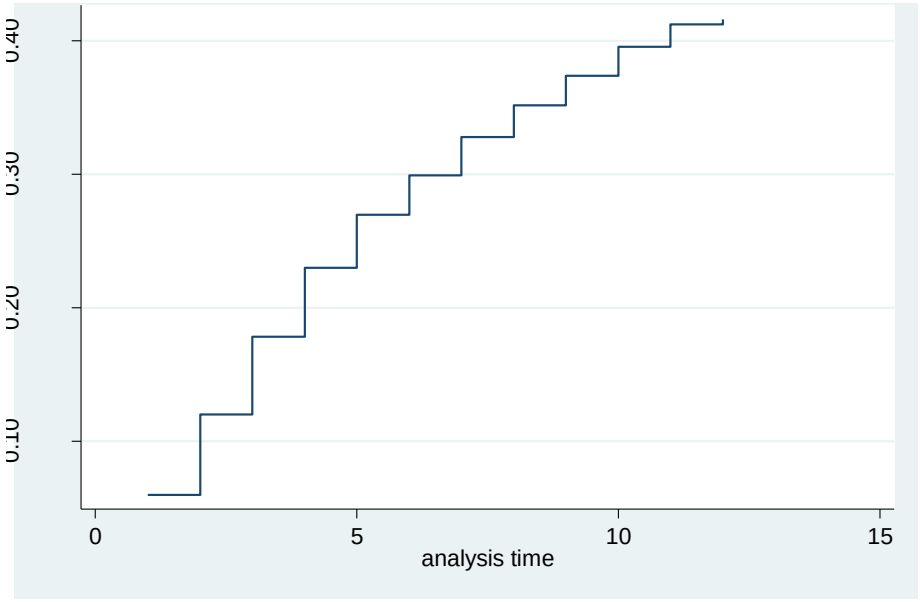

Figure 6. *Nelson-Aalen cumulative hazard estimate. Source: created by the author.*

The survival estimates are presented on Figure 7. They always start from 1, as the sample is full and at the beginning of the period none of the companies is gone private. As time goes on, they are going down to 65% of the sample that remained at the end of the study. So, during the period number 5 (year 2010) about 75% of the sample remained public, while during the period number 8 about 69% of the companies were still surviving, meaning that they have not delisted.

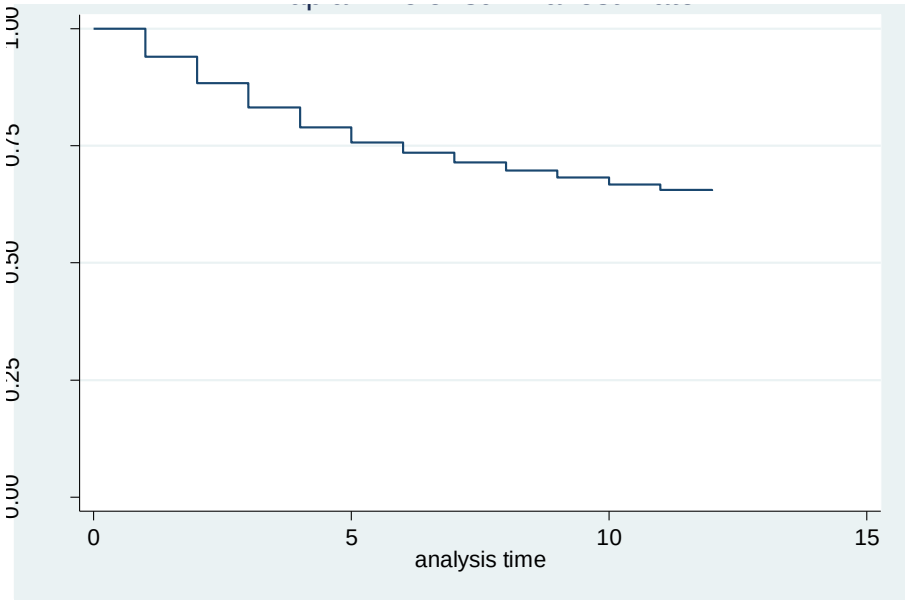

Figure 7. *Kaplan-Meier survival estimate. Source: created by the author.*

The more detailed list of the survivor function is presented in Table 19. This represents the table with all the periods, the total number of the companies beginning in the sample, how many companies delisted in each period. Moreover, the survivor function is presented over time,

which comes to already mentioned number of 65% of survived companies in the end of the study.

Table 19. *List of survivor function.*

Time	Beg. Total	Fail	Net Lost	Survivor Function	Std. Error	95% Confidence Interval	
1	4768	285	328	0.9402	0.0034	0.9331	0.9466
2	4155	250	328	0.8837	0.0047	0.8740	0.8926
3	3577	210	325	0.8318	0.0057	0.8204	0.8425
4	3042	157	313	0.7888	0.0063	0.7762	0.8009
5	2572	103	309	0.7573	0.0068	0.7437	0.7703
6	2160	64	300	0.7348	0.0071	0.7205	0.7485
7	1796	51	290	0.7140	0.0075	0.6989	0.7284
8	1455	35	284	0.6968	0.0079	0.6810	0.7119
9	1136	25	282	0.6814	0.0083	0.6649	0.6974
10	829	18	274	0.6666	0.0088	0.6491	0.6836
11	537	9	270	0.6555	0.0094	0.6367	0.6736
12	258	1	257	0.6529	0.0097	0.6335	0.6716

Source: created by the author.

In this master thesis three parametric models were considered:

1. Exponential regression coefficients and hazard rates.
2. Weibull regression coefficients and hazard rates.
3. Gompertz regression coefficients and hazard rates.

All the model results are presented in the Table 20. The results, coefficients, their magnitude, interpretations of the model and the hazard ratios are very similar to the semi-parametric Cox proportional hazard model. Therefore, the obtained results of the research study can be considered consistent across models, as they produce the same conclusions. Thus, for the purpose of interpretation of the results, it was decided to concentrate on the results of the Cox model. The coefficients and hazard ratios of different models are presented in Table 20. A positive coefficient means a lower duration on the exchange, while a negative coefficient means higher duration. Hazard ratios from 0 to 1 signify negative relationship between variable and the conditional probability of being delisted. The hazard rate more than 1 signifies a positive relationship between the variable and the conditional probability of being delisted.

Table 20. *Empirical study results (coefficients, hazard ratios) for AIM companies.*

Variable	Exponential coefficient	Weibull coefficient	Gompertz coefficient	Cox coefficient	Exponential H.R.	Weibull H.R.	Gompertz H.R.	Cox H.R.
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
CAPEX_Sales	-0.076**	-0.078**	-0.076**	-0.0739**	0.927	0.925	0.927	0.929
OpPerf	-0.042**	-0.048**	-0.042**	-0.038**	0.959	0.954	0.959	0.963
SalGr	-0.010***	-0.010***	-0.010***	-0.010***	0.989	0.989	0.989	0.989
Liq	-0.020	-0.024*	-0.021	-0.014	0.979	0.976	0.979	0.986
PB	4.13e-04	4.97e-04	4.08e-04	6.44e-04	1.000	1.001	1.000	1.001
FCFrat	0.018***	0.019***	0.018***	0.018***	1.019	1.019	1.019	1.018
LnSales	-0.039**	-0.043**	-0.040**	-0.035**	0.961	0.958	0.961	0.965
Crisis	1.091***	1.256***	1.099***	0.934***	2.979	3.511	3.004	2.546
Firms that went private	1208	1208	1208	1208				
Control firms	3570	3570	3570	3570				
Firm-year observations	4768	4768	4768	4768				
Log likelihood	-3433.828***	-3405.510***	-3433.775***	-9520.204***				

*** denotes significance at 1% level
** denotes significance at 5% level
* denotes significance at 10% level

Source: created by the author.

First of all, the model itself is significant at 1% level, as evidenced by log likelihood statistics. The effect of variable CAPEX_Sales is significant at 5% level. A negative coefficient of -0.076 means that if the capital expenditures of the company increase, the time to going private increases, so the event of delisting is less likely to happen. The hazard rate of this variable equals 0.929. So, holding other variables constant, for a 1 unit change in capital expenditures divided by net sales the hazard rate of the going private decreases by 6%, which is in line with our hypothesis. This means that the more company invests in capital expenditures, the less likely that the company will go private. Hence, there is a necessity for the companies on AIM to raise more capital and first hypothesis can be accepted.

Operating performance of the companies appeared to be significant at 1% level in the model. The coefficient equals -0.042 suggesting that operating performance is important for the companies considering the decision to go private. The negative coefficient means that an increase in operating performance, and EBITDA more precisely, decreases the time to go private. The hazard rate equals to 0.963, meaning that, holding other variables constant, for a 1 unit increase in operating performance ratio, the hazard rate of going private decreases by 3.7%. Therefore, the second hypothesis is accepted.

The coefficient of sales growth is significant at 1% level. The coefficient equals to -0.010, meaning that an increase in sales growth increases the time to going private event. The hazard rate equals 0.989, meaning that holding other variables constant, for a 1 unit increase in sales growth the hazard rate decreases by 1.1%. This can be explained by the fact that companies from the alternative investment market have very volatile sales figures. For example, Lehn and Poulsen (1989) found an evidence for the hypothesis of the situation when companies going private showed lower growth figures. Thus, the third hypothesis is accepted.

As shown in the model specification, liquidity is insignificant, indicating the importance of liquidity (hypothesis 4) to the decision of being public cannot be interpreted.

The effect of the variable LnSales is significant and negative at 5% level, suggesting modest support for the existence of a negative relationship between firm size and likelihood of going private. According to the results of the research by Martinez and Serve (2011) since large firms may be more efficient at amortizing fixed costs of public status, most likely small businesses will be more motivated to implement delisting when the direct costs of maintaining the listing increase. This means that the larger the net sales of the company, the risk of going private is lower. The hazard ratio equals 0.97, meaning that holding other variables constant, for a 1 unit increase in net sales, the hazard ratio decreases by 3%.

The free cash flow ratio to sales is significant at 1% level. The coefficient equals 0.018, which means that an increase in undistributed free cash flow of the company means the shorter

time to delist, so the going private event is more likely to happen. The hazard rate equals 1.02. If the free cash flow increases by 1 unit, the hazard rate increases by 2%. Therefore, there is evidence in favor of Jensen free-cash-flow hypothesis, supporting the idea of agency costs. This can be explained by the fact that in companies from AIM there are high agency costs and the funds could be returned to shareholders in the form of higher dividends or used to repurchase stock, which again increases returns to shareholders.

The dummy variable crisis is significant at 1% level, which means that there is a significant difference for companies that went private during the financial crisis and in other years. The hazard rate equals 2.55. It means that companies during the crisis years are 2.55 times more likely to go private than in non-crisis years.

The price-to-book ratio is also not significant in the model.

Thus, the research goal is met by establishing the relationship between companies' size, capital expenditures, free cash flow, operating performance and liquidity of share trading and the decision to go private on the AIM market.

To sum up, evidence for three hypotheses out of four stated in the first section of the master thesis was found. The results of the hypothesis 4 cannot be interpreted as the coefficient for this variable was insignificant. The hypotheses 1, 2 and 3 can be accepted and it can be concluded that companies that spend more on the capital expenditures, have better operating performance, and those with higher growth prospects in terms of sales growth, are less likely to delist. These results can be explained by the fact that the alternative investment market consists of the young, risky and growing companies. The results of their investments are difficult to predict, and sales growth does not motivate them to go private. Moreover, it can be concluded that larger companies which are more efficient at amortizing listing costs are less likely to go private. Finally, companies which have higher free cash flow are more likely to go private and probably via LBO, as the increased debt repayment obligations will positively influence the distribution of cash flows and eliminate the agency problem.

2.3.2 Main Market

The description of the sample of Main Market companies made for the modeling is provided in Table 21. It can be seen again that the number of subjects is 6276 and time at risk is 35497 which equals the sum of all the observations' years included in the sample. Each of the observations has been observed between 1 and 12 years. The number of failures (delistings) is equal to 1918 and consequently 31% of all the companies.

Table 21. *Sample description*

		[----------Per subject----------]			
Category	Total	Mean	Min	Median	Max
no. of subjects	6276				
no. of records	6276	1	1	1	1
(first) entry time		0	0	0	0
(final) exit time		5.655991	1	5	12
subjects with gap	0				
time on gap if gap	0				
time at risk	35497	5.655991	1	5	12
failures	1918	0.305609	0	0	1

Source: created by the author.

The incidence rate is presented in Table 22. It equals to 0.054, which is the incidence rate of the delisting of all time at risk.

Table 22. *Incidence rate description*

				[----------Survival time----------]		
	Time at risk	Incidence rate	No. of subjects	25%	50%	75%
Total	35497	0.0540327	6276	5	-	-

Source: created by the author.

The smoothed hazard estimate is presented on the Figure 8. The hazard rate is going down, particularly over the periods from 4 to 10. As the time goes on, companies are less likely to go private from the Main Market of the London Stock Exchange.

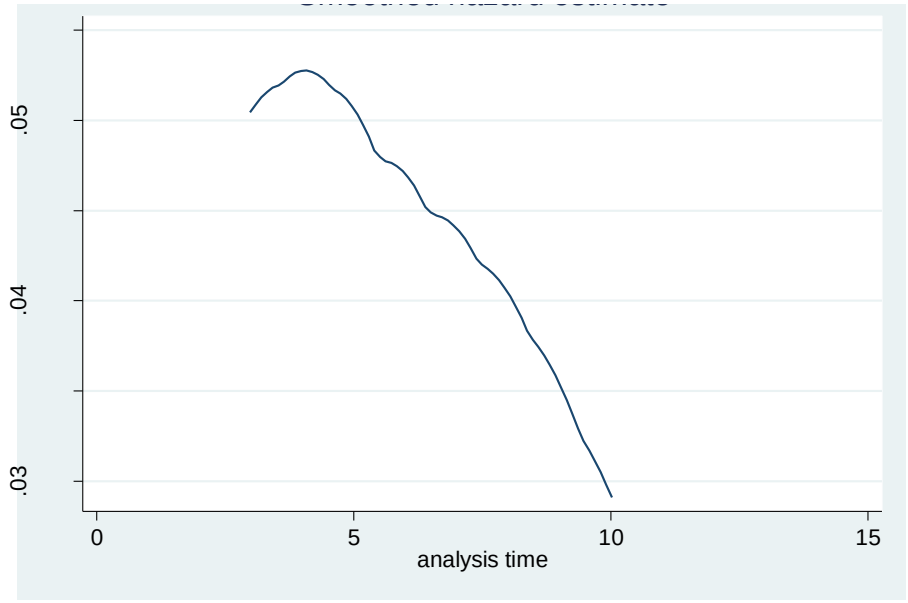

Figure 8. *Smoothed hazard estimate. Source: created by the author.*

On the Figure 9 the cumulative hazard estimate is presented. It is increasing over time and shows the cumulative estimates. It takes the maximum number at the end of the 12th observed year and the cumulative hazard estimate equals to 0.54. The hazard rate is steeper for the first 5 years of observation. Therefore, the risk of delisting is higher during the first 5 years.

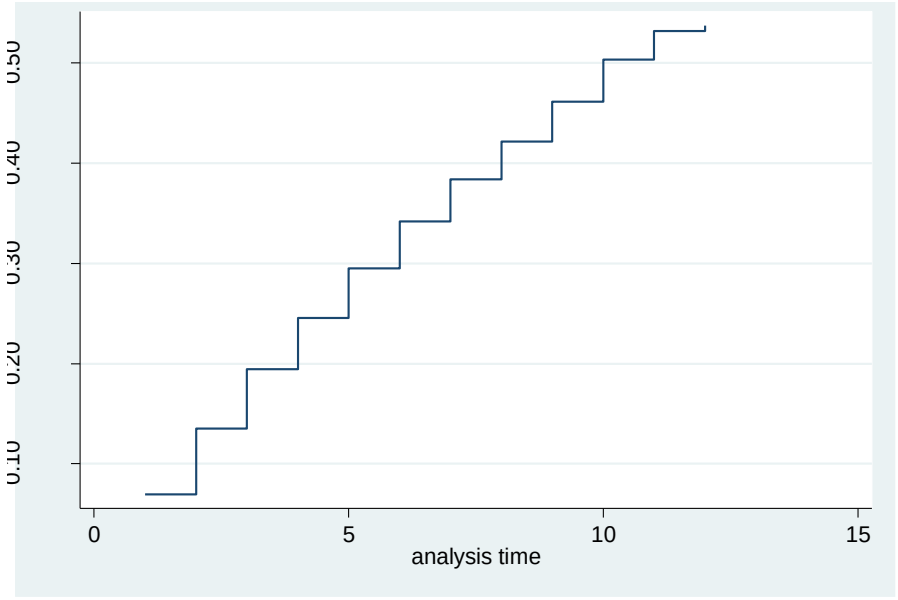

Figure 9. *Nelson-Aalen cumulative hazard estimate. Source: created by the author.*

The survival estimates are presented on Figure 10. On the first period it equals 1, as the sample is full and at the beginning of the period none of the companies is gone private. As time goes on they are going down to 58% of the sample that remained at the end of the study. So, during the period number 5 about 74% of the sample remained public, while during the period number 8 about 65% of the companies are still surviving, meaning that they have not delisted.

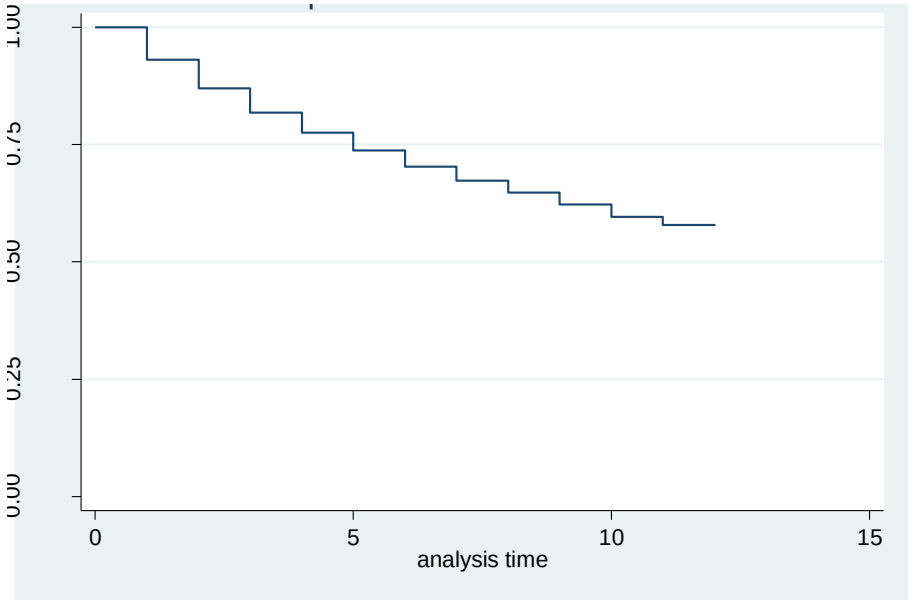

Figure 10. *Kaplan-Meier survival estimate. Source: created by the author.*

The more detailed list of the survivor function is presented in Table 23. This represents the table with all the periods, the total number of the companies beginning in the sample, how many companies delisted in each period. Moreover, the survivor function is presented over time, which comes to already mentioned number of 58% of survived companies in the end of the study.

Table 23. *List of survivor function.*

Time	Beg. Total	Fail	Net Lost	Survivor Function	Std. Error	95% Confidence Interval	
1	6276	436	364	0.9305	0.0032	0.9240	0.9366
2	5476	359	364	0.8695	0.0043	0.8608	0.8777
3	4753	281	364	0.8181	0.0050	0.8080	0.8278
4	4108	212	364	0.7759	0.0056	0.7648	0.7866
5	3532	175	364	0.7375	0.0060	0.7255	0.7490
6	2993	139	364	0.7032	0.0064	0.6905	0.7155
7	2490	105	363	0.6736	0.0067	0.6602	0.6865
8	2022	76	363	0.6482	0.0071	0.6342	0.6619
9	1583	63	363	0.6224	0.0075	0.6075	0.6370
10	1157	49	363	0.8961	0.0081	0.5801	0.6117
11	745	21	362	0.5793	0.0086	0.5621	0.5960
12	362	2	360	0.5761	0.0089	0.5584	0.5933

Source: created by the author.

The full results of Exponential, Weibull, Gompertz and Cox survival models are presented in the Table 24. The results of the hazard ratios are consistent across models, because they produce the same conclusions for the hypothesis testing and determinants interpretation.

Table 24. *Empirical study results (coefficients, hazard ratios) for Main Market companies.*

Variable	Exponential coefficient	Weibull coefficient	Gompertz coefficient	Cox coefficient	Exponential H.R.	Weibull H.R.	Gompertz H.R.	Cox H.R.
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
CAPEX_Sales	-0.005	0.001	-0.002	-0.006	0.995	1.001	0.997	0.994
OpPerf	-0.088***	-0.095***	-0.092***	-0.086***	0.916	0.909	0.912	0.918
SalGr	-0.012***	-0.0112***	-0.011***	-0.012***	0.988	0.989	0.989	0.988
Liq	-0.047***	-0.048***	-0.048***	-0.047***	0.954	0.954	0.953	0.955
PB	0.002	0.002	0.001	0.002	1.002	1.002	1.001	1.002
FCFrat	0.078***	0.084***	0.082***	0.078***	1.082	1.087	1.009	1.081
LnSales	-0.218***	-0.227***	-0.223***	-0.216***	0.804	0.797	0.801	0.805
Crisis	0.818***	1.039***	0.942***	0.803***	2.267	2.829	2.566	2.232
Firms that went private	1918	1918	1918	1918				
Control firms	4358	4358	4358	4358				
Firm-year observations	6276	6276	6276	6276				
Log likelihood	-4817.203***	-4739.164***	-4799.258***	-15342.772***				

*** denotes significance at 1% level
** denotes significance at 5% level
* denotes significance at 10% level

Source: created by the author.

The ratio of capital expenditures to net sales is not significant in the model and, thus, the results cannot be interpreted for the first hypothesis.

Operating performance of the companies appeared to be significant at 1% level in the model. The coefficient equals -0.086 suggesting that operating performance is important for the companies considering the decision to go private. The negative coefficient means that an increase in operating performance, and EBITDA more precisely, decreases the time to go private. The hazard rate equals to 0.916, meaning that holding other variables constant, for a 1 unit increase in operating performance ratio, the hazard rate of going private decreases by 8.4%. Therefore, the second hypothesis is accepted.

The coefficient of sales growth is significant at 1% level. The coefficient equals to -0.012, meaning that an increase in sales growth decreases the time to going private event. The hazard rate equals 0.988, meaning that, holding other variables constant, for a 1 unit increase in sales growth the hazard rate decreases by 1.2%. So, it can be concluded that in the case of Main Market the third hypothesis was accepted. So, for large companies on the Main Market an increase in sales is rather difficult task, therefore growth prospects play an important role in the decision to go private.

As shown in the model specification, liquidity is significant at 1% level, indicating the importance of liquidity to the decision of being public. The coefficient of this variable equals -0.047 meaning that an increase in turnover by volume increases the time to delist. The hazard ratio of this variable equals 0.955. This means that, holding other variables constant, for a 1 unit increase in turnover volume of shares the hazard rate decreases by 5.5%. The evidence for the same hypothesis was found in previous studies Bharath and Dittmar (2010), Boot, Gopalan and Thalor (2006), Martinez and Serve (2011), suggesting that liquidity (volume of turnover of shares) may be a consistent motivation for the delisting. Hence, the fourth hypothesis is accepted.

The free cash flow ratio to sales is significant at 1% level. The coefficient equals 0.078, which means that an increase in undistributed free cash flow of the company means the shorter time to delist. The hazard rate equals 1.081. Holding other variables constant, if the free cash flow increases by 1 unit, the hazard rate increases by 8.1%. This result confirms the hypothesis and, therefore, there is evidence in favor of Jensen free-cash-flow hypothesis, supporting the hypothesis of agency costs.

The effect of variable LnSales is significant and negative at 1% level, suggesting modest support for the existence of a negative relationship between firm size and probability of going private. According to results in the research of Martinez and Serve (2011), since large firms may be more efficient at amortizing these fixed costs, most likely small businesses will be more

motivated to implement delisting when the direct costs of maintaining the listing increase. This means that the larger the net sales of the company, the going private transaction is less likely to happen. The hazard ratio equals 0.8, meaning that for a 1 unit increase in net sales, the hazard ratio decreases by 20%. The Main Market of the London Stock Exchange is more regulated than AIM. Moreover, the fees for the admission of shares and annual fees are much higher for the companies on Main Market.[29, 30] As a result of this, companies have much higher costs of being public and in such circumstances it is crucial to amortize fixed costs of being public. Companies which are unable to amortize these fixed costs are more motivated to go private.

The dummy variable crisis is significant at 1% level, which means that there is a significant difference for companies that went private during the financial crisis and in other years. In other words, during the crisis years companies are 2.23 times are more likely to leave Main Market.

The price-to-book ratio is not significant in the model and the result cannot be interpreted.

Thus, the research goal is met by establishing the relationship between companies' size, capital expenditures, free cash flow, operating performance and liquidity of share trading and the decision to go private on the Main Market.

To sum up, evidence for three hypotheses out of four stated in the first section of the master thesis was found. The results of the hypothesis 1 cannot be interpreted as the coefficient for the variable was insignificant. The hypotheses 2, 3 and 4 are accepted and it can be concluded that companies that have better operating performance, higher growth prospects in terms of sales growth and which shares are more liquid, are less likely to delist. Larger companies, which are more efficient at amortizing listing costs, are less likely to go private. Companies, which deteriorate the volume of trading, are more likely to go private, as for such companies on the Main Market the liquidity of share trading is a primary benefit of going public. Also share trading on an exchange is cheaper compared to bilateral trades, and this liquidity benefit (which is an increasing function of the trading volume) leads companies to be public. Finally, companies, which have higher free cash flow, are more likely to go private, because in case of LBO, for example, the increased debt repayment obligations will positively influence the distribution of cash flows and eliminate the agency problem.

[29] Fees calculator. *London Stock Exchange*. Accessed April 1, 2017. Retrieved from http://www.londonstockexchange.com/exchange/companies-and-advisors/main-market/listing-fees/mm-fees-calculator.html.

[30] AIM. Fees for companies and nominated advisers. *London Stock Exchange*. Accessed April 1, 2017. Retrieved from http://www.londonstockexchange.com/companies-and-advisors/aim/publications/aim-fees.pdf.

2.3.3 Summary of Empirical Results

The hypotheses testing results are presented in Table 25. Moreover, the assumptions on the expected sign of other determinants for the decision to go private and sign approval for both markets are also included in the table. The first hypothesis is accepted only for the sample of AIM companies. Companies on this market are young and growing; they have a large leverage and/or high transaction costs. They need to attract large amounts of capital to keep on developing. Such companies invest in capital expenditures and they have an access to the low-cost external financing on the stock exchange for such investments. For Main Market companies this variable is insignificant and interpretation about capital expenditures serving as a determinant for the delisting decision cannot be provided.

The operating performance appeared to be a significant driving factor for the delisting decision. The hazard ratio of this variable is two times stronger for the Main Market companies. This can be explained by the fact that companies on AIM have rather volatile operating performance figures, while more stable companies on Main Market strive to achieve more efficient operating performance and as a result have more stable figures. So, for Main Market such unexpected drops of operating performance are more sensible and can be an indicator that the company should delist in order to restructure. The results of the models also showed that managers of both markets companies can voluntary delist in order to hide the deteriorating operating performance, because such figures increase the risk of bankruptcy due to increase in financial distress costs.

The growth prospects are also important for the companies of both markets. While AIM companies have rather unstable sales growth figures, Main Market companies have more stable growth prospects. For both markets an increase in sales leads to a decrease of hazard rate of going private. For Main Market companies, decrease of hazard rate of going private is slightly more sensible, because their growth prospects, unlike AIM's companies figures, are more constant and they, on average, do not have shocks in sales. So, the companies with high growth opportunities prefer to stay in the market to raise further capital. The results of this hypothesis can also be strengthened by the agency costs hypothesis. The results of the models on both markets showed that desirable candidates for going private transactions are firms where agency costs of free cash flows are high, that is, firms with low growth prospects and large free cash flows. Additionally, these firms may have managers who may not be increasing or may even be reducing dividend payout to increase further the resources, and thus the control, available to them.

The liquidity appeared to be a significant determinant for the Main Market companies. Zingales (1995) and Mello and Parsons (1998) posit that the role of an IPO is to establish the market price/value for a firm and thus provide liquidity. Based on the theoretical implications of these models, liquidity is therefore a benefit to being a public firm that is considered in the choice between public and private ownership. So, when the liquidity of shares on Main Market deteriorates, companies are more likely to go private, because models showed that their time to delisting is shorter.

Size of the company is significant for the models of both markets. Annual listing fees, trading costs (brokerage fees), information production costs, compliance costs to meet regulatory and corporate governance standards; financial distress costs due to poor performance; indirect costs related to the firms' undervaluation are incurred by the public companies. The models results showed that for both markets companies able to more efficiently amortize fixed costs of listing will leave the public market later. The hazard ratio of the size is stronger for the Main Market companies. The regulation process on the Main Market is stricter and it is more expensive to list on the Main Market than on the AIM. On AIM market the companies have either to comply with the rules of the exchange or explain to the exchange and shareholders why it is not done.

During the crisis years for the companies on both markets the hazard ratios are more than two times higher than during non-crisis years.

Finally, while for the AIM companies only operating performance plays an important role in the decision to go private, for the Main Market companies market performance is also important (liquidity).

Table 25. *Research results.*

Hypothesis	**Alternative Investment Market**	**Main Market**
There is a negative relationship between the ratio of capital expenditures to sales and the decision to go private	Accepted	-
There is a negative relationship between the performance and the decision to go private	Accepted	Accepted
There is a negative relationship between firm's growth prospects and the decision to go private	Accepted	Accepted
There is a negative relationship between stock liquidity and the decision to go private	-	Accepted

Assumption about the expected sign and hazard ratio	Alternative Investment Market	Main Market
Agency problem	Proved	Proved
Size of the company	Proved	Proved
Crisis	Proved	Proved
Undervaluation	-	-

Source: created by the author.

The results of the study have a number of managerial implications. For the owners of the companies both on AIM and Main Market, which have a situation when there is a high level of undistributed free cash flow and low growth opportunities it is proved to be wise to go private in order to decrease the agency conflict and to stimulate managers for an efficient work and not to distribute cash on projects of low potential. Since going private transactions are frequently leveraged buyouts, which are financed by high debt, the proposal is to delist to reduce the agency cost of free cash flows.

For the investors seeking a profitable strategy it would be important to monitor the companies, which have decreasing turnover volume of shares (on the Main Market) and operating performance (on both markets), as in this case the company is more likely to go private and shareholders can get an excess return like in the case of Daisy Group. Numerous studies showed that higher debt to capital ratio of the company was negatively correlated with productivity growth. Thus, private companies investing in capital expenditures can go to the AIM in order to rebalance their financial structure, as the results of the model showed the longer time to delist for companies investing in capital expenditures due to the access to low-cost capital market. So, the companies on AIM interested in future productivity growth due to previous capital expenditures should rebalance their capital structure with share trading.

For the London Stock Exchange it is important to enhance the liquidity of shares of Main Market companies, because the increased number of delistings due to poor liquidity of shares leads to the loss of listing costs for the exchange. The survival of firms could be a benchmark for regulators to measure the success of the rules that they impose on firms planning to be listed or undertake a reverse takeover. Additionally, firms and policy markets are interested in IPO survival, given that as long as a firm remains listed, it can raise funding from public markets.

2.3.4 Research Limitations

This research has a number of limitations due to some aspects described hereunder:

1. The London Stock Exchange discloses the information about the delistings from Alternative Investment Market only. The companies included in the research were chosen from the lists of the delisted companies. The collection of the companies from Main Market for the research was done manually and this significantly increased the time of the collection of the representative sample.
2. The absence of the access to the databases with more complete information for the variables. Some of the companies were excluded from the final sample due to inability to find data for the variables.
3. The list of the variables included in the model can be extended in the future researches. It might be interesting to cover other aspects of the companies' structure, such as corporate governance.
4. The study can be extended to other markets in order to compare the determinants of the going private transaction.

CONCLUSION

In this study the determinants of the going private transaction were analyzed. The goal of the study was to determine the factors that are related to the company's decision to go private. In order to reach the goal, all the objectives of the research were achieved.

In the first step the theoretical concepts of the going private transactions were analyzed and key components and aspects of these types of change of the legal form of organizations were considered. Based on theoretical and empirical literature determinants of the going private decision were observed from the point of two different categories: the operational performance of the companies and the results of activity on the stock exchange.

Furthermore, the theoretical approaches to motivations of the delisting decision were described and justified. In the second step an econometrical analysis was conducted, which helped to identify the determinants of the decision to go private.

The results of the empirical study for the companies on Alternative Investment Market suggest that the most significant factors that determine the risk of a company going private are the level of operating performance (how efficiently a company is generating EBITDA), and the level of capital expenditures (easier access to the equity market). The level of growth prospects also appeared to be a significant driving factor for the delisting decision. These results show that the operational performance of the companies on Alternative Investment Market plays a significant role in the company's decision to go private. The results of the activity on the stock exchange appeared to be insignificant for the companies on Alternative Investment Market, while the amount of free cash flow generated by the company was also found to have some effect on the risk of the company being delisted. Consistent with previous studies, the size of the company describing its ability to amortize fixed costs of public status had relation to the decision to go private. Moreover, during the crisis years the companies are more likely to delist from the Alternative Investment Market of the London Stock Exchange.

The obtained results for Alternative Investment Market companies allowed to accept three out of four hypotheses of the research: the hypothesis that there is a negative relationship between the ratio of capital expenditures to sales and the decision to go private; that there is a negative relationship between the performance and the decision to go private; and that there is a negative relationship between firm's growth prospects and the decision to go private.

The hypothesis about a presence of a negative relationship between stock liquidity and the decision to go private cannot be interpreted as the result of the regression analysis showed that this factor is insignificant.

The results of the study for companies on Main Market showed slightly different results. The most important driving factor in the decision to go private is the size of the company, operating performance and the liquidity of shares (opposite to the companies on Alternative Investment Market). The level of free cash flow and growth prospects had some effect on the hazard of the companies being delisted. Moreover, during the crisis years the companies are more likely to delist from the Main Market of the London Stock Exchange. The level of capital expenditures for such companies appeared to be insignificant. The price-to-book ratio as well as for the companies on Alternative Investment Market also was insignificant.

The obtained results for Main Market companies allowed to accept three out of four hypotheses of the research: the hypothesis about the presence of a negative relationship between the operating performance and the decision to go private; the hypothesis that there is a negative relationship between firm's growth prospects and the decision to go private; and that there is a negative relationship between stock liquidity and the decision to go private. The hypothesis about a presence of a negative relationship between capital expenditures to sales and the decision to go private cannot be interpreted as the results of the regression analysis showed that these factors are insignificant.

The overall results of the hypothesis testing for both markets of the London Stock Exchange are presented in the Table 26.

Table 26. *The results of the hypothesis testing.*

Hypothesis	**Alternative Investment Market**	**Main Market**
There is a negative relationship between the ratio of capital expenditures to sales and the decision to go private	Accepted	-
There is a negative relationship between the performance and the decision to go private	Accepted	Accepted
There is a negative relationship between firm's growth prospects and the decision to go private	Accepted	Accepted
There is a negative relationship between stock liquidity and the decision to go private	-	Accepted

Source: created by the author.

The survival analysis allowed identifying the financial profile of voluntarily delisted firms from both markets. Delisted companies on AIM spent less on capital expenditures and did not need an access to the capital market, performed more poorly than their listed counterparts on average over the same period and their growth prospects were lower. In addition, these companies faced agency costs and were smaller in size and unable to amortize fixed costs of

listing. Thus, weak performance in combination with a reduction in listing benefits may explain how public status can become too onerous.

Delisted companies on Main Market also performed more poorly than their listed counterparts on average over the same period and there growth prospects were lower. In addition, the liquidity of these securities was sharply below the benchmark values. Furthermore, delisted companies faced higher agency costs and were smaller in size and as a result amortized fixed costs of listing worse. Thus, weak performance with deterioration of liquidity and reduction of listing benefits explained the going private decision. So, these factors appear to be the primary motivations for delisting on both markets of the London Stock Exchange.

Thus, the research goal of determining the factors which are related to the company's decision to go private was achieved. The results of the study have a number of managerial implications. For the owners of the companies both on Alternative Investment Market and Main Market, which have a situation when there is a high level of undistributed free cash flow and low growth opportunities, it proved to be wise to go private in order decrease the agency conflict and to stimulate managers for an efficient work and not to distribute cash on projects of low potential. Since going private transactions are frequently leveraged buyouts, which are financed by high debt, the proposal is to delist in order to reduce the agency cost of free cash flows. For the investors seeking a profitable strategy it would be important to monitor the companies on the Main Market, which have decreasing turnover volume of shares and operating performance, as in this case the company is more likely to go private and shareholders can get an excess return like in the case of Daisy Group. Moreover, private companies investing in capital expenditures can go to the AIM in order to rebalance their financial structure, as the results of the model showed the longer time to delist for companies investing in capital expenditures due to the access to the capital market. For the London Stock Exchange it is important to enhance the liquidity of shares of Main Market companies, because the increased number of delistings due to poor liquidity of shares leads to the loss of listing costs for the exchange.

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