Underpricing of Initial Public Offerings

Case study: NASDAQ OMX First North Helsinki

Thien Nguyen Truong

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Abstract:

Underpricing is a famous financial phenomenon that commonly emerges in Initial Public Offerings. This has attracted enormous attention from investing institution and individual investors as well as companies, thus generated many literature inspecting the reasons and characteristics of underpricing. The thesis aims to provide general understanding about IPO and underpricing and attempts to apply these knowledge to case study of NASDAQ OMX First North Helsinki. The purpose of the empirical study is to investigate on initial return rate factor, which affects the attraction of the First North Helsinki market.

The result showed that averaged return rates of First North Helsinki IPOs are negative figure. Further statistics also confirms little evidence of underpricing in First North Helsinki IPOs. However, this could be explained as the studying market participants are relatively small and fresh companies, which can hardly carry the underpricing's drawbacks thus instead concentrate on raising as much capital as possible. Additionally, the result displays a promising future for technology and financial sectors of Finnish economies.

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CONTENTS

Figures

Tables

FOREWORD

This motivation to choose this thesis originates from my enthusiasm for Finance and financial securities market. I would like to express my gratitude for Mr. Andreas Stenius as his first guidance to this business area. Additionally, I would like to thank lecturers from Frankfurt University Applied Science where I had my most immerse study about Finance and Economics subjects.

Last but not least, I would like to thank Mr. Svein Eldon for his support and supervision to guide me to finish this paper on time.

Helsinki, November 2015

Thien Nguyen Truong

1 INTRODUCTION

1.1 Introduction

Over the past ten years, the number of Initial Public Offering (IPO) in Finland is remarkably small. Even though large companies are still important to the Finnish economy, the growth of small and medium-sized ones is essential to Finland's economy well-being and employment. Since, Sweden has got over 160 small companies listed on the NASDAQ OMX First North market, comparing to six companies in Finland (*Economic Growth Through IPOs*. 2014). In Sweden, the number of jobs from listed companies on the First North market increases 21% annually after going public. Additionally, these companies have created a total of 20,000 new jobs through market based financing during the past seven years (*Economic Growth Through IPOs*. 2014). In January 2014, different shareholders and representatives of capital market participants gathered and discussed and drafted proposal for expanding the Finnish IPO and capital markets.

During the past few decades, IPOs have gotten extensive attention in the finance world. When a firms go public, they experience direct and indirect costs. Direct costs consist of as underwriting, external auditor, legal and financial reporting advisor fees. While long-term external reporting, investor relation, executives and employers' incentive plans cost and IPO underpricing, the most puzzling enigmas in finance, belong to indirect costs. Underpricing critically contributes to a high initial return rate, thus attracts great interest from domestic and international investors.

During the author's exchange study in Frankfurt University of Applied Science, he had the opportunity to participate in various discussions with international colleges and instructors and had gained interest in subjects related to international trade and financial instruments such as stocks and currencies. These conversations encouraged the author to investigate the financial market's current situation of his home study country, Finland. Furthermore, in order to test the relativity of underpricing phenomenon to the success of Finnish IPOs, the author chose Nasdaq OMX First North Helsinki as case study. This is due to the ease of data collection, comparing to the main market, and the fascinating recentness feature of the First North market. The availability of this study would be valuable to Finnish companies interested in going public, especially small and medium-sized enterprises, and assist financial institutions and investors in the process of investing in Finland's capital markets. Furthermore, the paper will contribute to the literature about this new First North market, and serve as groundwork for further study and hopefully participate in the process to put Finland's IPO market onto the growing path.

1.2 Research Questions

The purpose of the thesis is to provide information on the First North Helsinki market and investigate its potential to financial institutions and investors. The research questions hence expresses these purposes:

- What is First North market and its purposes?
- How attractive is the Initial Public Offerings in NASDAQ OMX First North Helsinki to international financial institutions and individual investors?

In order to facilitate the development of financial instruments market in Finland and Nordic region, the Exchange proposed a fresh securities market to offer a substitute choice to companies by relieving the regulatory burden and providing expert advisors to support the listing process. NASDAQ OMX First North is the alternative stock market operating parallel to NASDAQ main market. Providing an effective channel for small and medium-sized enterprises to raise market-based capital, the First North assists the participation of institutional and private investors in share matters. To investigate the First North market, it is necessarily to distinguish the First North to the Nordic main market.

Additionally, it is a well-aware fact that IPO shares tend to be priced beneath their intrinsic value when a private company first goes public. As the law supply and demand responds, the market will push the price back to its real value. This phenomenon preserves a huge impact on the initial return for investors who purchased the offering shares (Ibbotson, Sindelar & Ritter, 1994, 67). Thus, the initial rate of return and level of underpricing are required to inspect the viability of IPOs as an investment opportunity. Accordingly, the following questions have to be addressed to answer the above Research Questions:

- What is the difference between NASDAQ OMX First North and the Nordic main market?
- What is the initial return rate and underpricing level of First North Helsinki Initial Public Offerings?
- What do these results expose about the market orientation of First North Helsinki?

1.3 Research Methodology and Data Collection

Research methodology is an essential part of a thesis, in that it has a profound effect upon the way the author construct the dissertation and justify his choice of research conduct within a particular organization (Eriksson & Kovalainen 2008, 25-26). The research will shape the kinds of research methodologies the author uses to underpin his work and methods he uses in order to collect data. A research method consists of research design and choice of data collection. (Saunder, Lewis & Thornhill 2009, 43.) This segment presents the author's choice of research methodology and data collection and provides explanation for these selections.

To begin with, research method is an important component of research design. Conventionally it is divided into two main categories: Qualitative and quantitative methods. Quantitative research is considered the quantification of data its primary purpose. This allows generalizations of results from a sample to an entire population of interest and the measurement of the frequency of various views and opinions in a given sample, by using highly structured, firm techniques such as questionnaires, on-street or telephone interviews. In contrast, Qualitative data analysis is non-statistical, its methodological approach is primarily conducted by the existing material at hand. An example of a qualitative method is unstructured and group interviews which generate qualitative data through the use of open questions. Analysis of qualitative data is demanding and involves accurate description of participant responses, for instance, arranging responses to open questions and interviews into wide-ranging themes. The author found quantitative methods desirable to answer the thesis's research questions.

Subsequently, research approach is another components of research design. The choice of approach defines the connection between literature examination and empirical study, along with the general development of a thesis. Generally, there are two broad methods of reasoning as the deductive and inductive approaches. The main difference between inductive and deductive approaches is that while a deductive approach is designed at testing theory, an inductive approach is concerned with the generation of new theory emerging from the data. A deductive approach usually starts with a hypothesis, whilst an inductive approach will narrow the scope of the study by the use of research questions. Inductive approaches are commonly associated with qualitative research, while deductive approaches are more generally associated with quantitative research. However, there are no set of rules and some opposite combination may be sensible in some scenarios. Overall, the examining nature of this study induces the author to choose deductive approach as the primary guideline.

Furthermore, the assortment of data also demands a systematic approach. Various data sources are employed in this paper, which are allocated into theoretical and empirical segments. Required data for the theoretical segment is collected mostly from textbooks, reports and research articles that emphasis on IPOs and the performance of IPO stocks in short-term. Additionally in this paper, the bridge to connect the theoretical and empirical segments and to narrow the scope of the empirical study is the revision of the NASDAQ OMX First North. Next, the empirical part employs various financial databases to gather companies' data which composes the main source for the analysis. Afterward, the author applies the finance formulas to calculate the return rates and level of underpricing for further analysis.

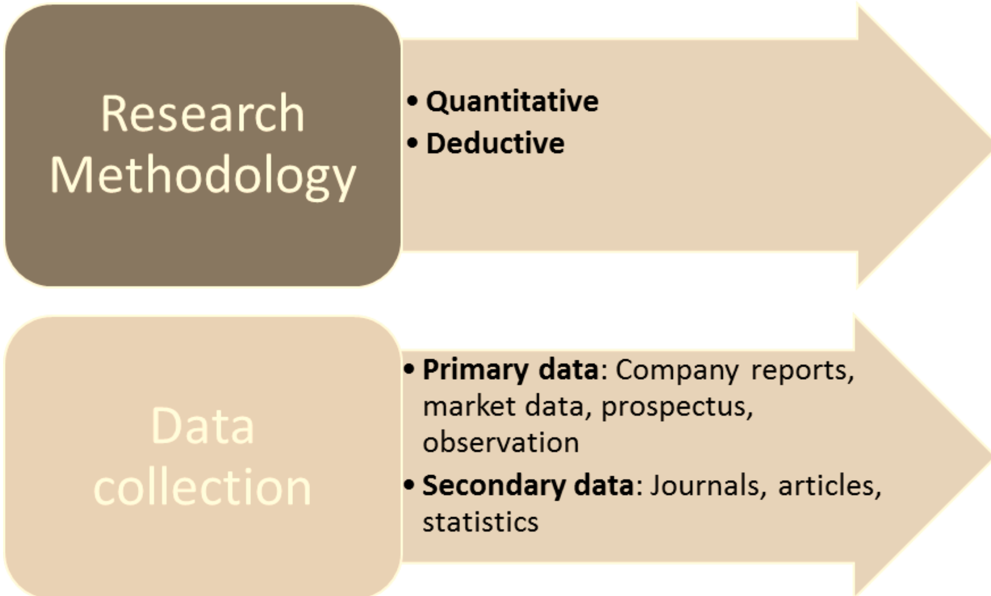

Figure 1. Research Methodology and Data Collection

1.4 Scope and limitation

Firstly, the major concern of this paper is to examine the IPO attraction and the return rate of IPOs in First North Helsinki. IPO is a popular subject in finance literacy with various subdivisions, within the scope of this bachelor thesis the writer chooses to investigate only a narrow topic. The purpose of this is to preserve and condense the quality of the study and provide an enhanced knowledge of the specific market, which can assist as a groundwork for further study.

Moreover, the paper is written from the point of view of and for investors that are interested in Finland, by providing a concise information layout on a segment of Finnish current financial market and analyzing the collected data. Furthermore, this thesis also profits small and medium-sized enterprises with intention to go public in Finland, providing them with information of an alternative market for raising capital. Although the paper comprises a limited topic, the author deems its implication are pervasive and applicable to many business issues and decisions.

Lastly, the paper only covers the investigation of companies that listed on one First North market, the First North Helsinki. The choice is triggered by the current geographic location of the author and his potential occupied business environment in the near future. Even though the First North Nordic encloses with 4 sub-markets: First North Copenhagen, First North Helsinki, First North Stockholm and First North Iceland, one of the inspiration for this research is to partly investigate the current situation of Finnish financial market hence the First North Helsinki would be the most adequate choice out of the four. The market is young with a shallow historical data and its nature and purposes are different from other 'big cap' markets, ex. Helsinki Main Market. Analyzing procedure must be processed carefully and any comparison may only be applicable to a certain degree.

1.5 Thesis structure

The paper starts with introduction in Chapter 1, with background to the topic, brief review of current knowledge and aims of the research. Next, the theoretical framework consists of Chapter 2 and 3, in which the former presents knowledge overview on IPOs from the point of view of the company and the investor; the latter conveys the underpricing phenomenon in IPOs, with a look to incentives for underpricing, its factors as well as its significance in an emerging markets context.

Chapter 4 and 5 of this thesis portrays the empirical study. Chapter 4 provides information and data on the case study's specific market and compares it to the other related one. Chapter 4 also acts as brief guideline for Finnish companies interested in going public by offering information about the Finnish IPO current state and process and their market choice's alternatives. Chapter 5 employs the data collected from financial sources and exercises the formulas to determine the return rates and the level of underpricing in First North Helsinki and place the results to comparison with that of other markets.

Chapter 6 draws on the result in the empirical study to answer the research questions. Furthermore, the consequence of the research will be discussed and employed to pass recommendation to related parties (investors and companies) as well as framework for other research potentials to better the result of the study. Lastly, chapter 7 summarizes the whole thesis.

2 INITIAL PUBLIC OFFERING THEORY

The abbreviation IPO stands for ‘Initial Public Offering’. This occurs when a company issues its shares for the first time on the stock exchange. The issuing company is accompanied by an underwriter. Most of the time the underwriter is a bank which takes care of the introduction of the firm at the stock exchange (Ellis, Michaely and O’Hara, 1999). The market in which the bank offers new shares to investors is called the primary market, which is firmly reserved for stocks that have never been issued before. After the offering process, the shares will be traded on a secondary market, which is usually a national stock exchange. (Bodie, Kane & Marcus 2005, 66). The most important motive of IPO is to attract more capital for investments.

An IPO marks the firm’s conversion from a private business to a public entity, a significant transformation which alters the whole ownership structure and every aspect of the business. Additionally, an IPO is regularly the largest equity issue a company ever offers. (Zingales, 1995, 425) After IPO, all subsequent public offerings are labeled seasoned new issues, which compels less strict procedures and regulations than an IPO. Every IPO involves many different parties, who often work together and requires careful research for several years before the issue is done. (Geddes, 2003) This section provides a general insight on IPO, advantages and disadvantages of going public and brief knowledge about the offering process.

2.1 Advantages and disadvantages for going public

2.1.1 Advantages

Increase Company’s capital: the IPO permits the company to acquire more capital for different opportunities like acquisitions, funding research and development, funding capital expenditure or even used to pay off existing debt. Once public a firm can access additional capital more easily by issuing bonds or a seasonal equity offering. Besides, the public status encloses a positive effect on substitute financing from public or private investors (Ritter and Welch, 2002, p. 1796).

Multiple financing opportunities: Due to better credibility when going public, a listed business perceives more financing opportunities that a private entity does not, such as equity, convertible debt, and cheaper bank loans, etc. Moreover, an offering generally improves a company's debt-to-equity ratio which enables the negotiation to better borrowing terms in the future.

More liquid than stock of private companies: Companies listed on a stock exchange are usually worth more than similar companies that are privately held. The requirement of a public company to disclose its business information by law decreases uncertainty and thereby increases the company's value. Moreover, a public company facilitates the liquidity of stock because it creates a market for buyers and sellers of its stocks, whereas a private company must find this other individual willing to buy his shares. Overall, the listed company will be worth approximately 30 percent more than the private company, even if they are identical in all other aspects. (Geddes, 2003)

Stock can be used as reward: Equity can be used as a performance based incentive. Employees are compensated with shares or options and thus it can increase productivity and loyalty, because the value of these rewards regularly has positive correlation to the well-being of a company.

Facilitating acquisitions: A successful IPO increases a company's assessment and provides opportunities for mergers and acquisitions. Being public makes it easier to see potential synergies between companies thus improves the precision of such decisions.

2.1.2 Disadvantages

Time and money consuming process: It can take more than a year to complete the IPO process. Moreover, companies have to consider various expenses on accountants, attorneys and the underwriters' fee, which costs between 3% and 10% of the total value of the IPO. Other overhead expenses includes costs of activities such as public relations, printing, marketing and consultancy, etc.

Increasing Disclosure: Public companies are regulated in regard to periodic financial reporting, which may be difficult for new public companies. More importantly, especially for smaller companies, the cost of fulfilling regulatory requirements can be very high, which have increased with the initiation of the Sarbanes-Oxley Act. In addition, companies are required to disclose information on a regular basis in order for investors to make decisions as to buy, sell or hold. (Spindler 2010)

Incentives vs. Company benefits: One of the advantages was the compensation to employees with shares to improve productivity and loyalty. Conversely, this can also lead to managers only pursuing a higher stock price, which sometime is not in line with the long-run benefit of the whole company.

Profit and control division: Being a public company means the company has to share its profit and control with the shareholders. Moreover, public companies tends to hire professionals for the management team. Hired managers are believed to work for their best interest since they have no ownership of the company. In order to guarantee that the managers work in the best interest of the shareholders, public companies form board of directors to inspect managers' actions on behalf of the shareholders. (Geddes, 2003, p28)

2.2 Initial Public Offering Procedures

A successful IPO requires careful planning. The preparation process can begin the same day as the IPO decision or delayed to a couple of months before a public offering, it is a recommendation that an orderly plan be executed over a one- to two-year period. The gap gives a company time to reflect, act, and perform as a public company. (Roadmap for an IPO. 2010).

Furthermore, the IPO process profoundly depends on particular laws and regulations concerning to particular countries. However, there are some unities among IPOs around the world (Geddes. 2003, p. 4). Accordingly, an overall knowledge about these unities is important not only to comprehend the whole procedure, but also to differentiate exclusive features when it comes to a specific country.

2.2.1 Corporate issue

During the IPO preparing process, a company must expand its management capabilities. One possibility is to recruit new personnel with public company experience in operations, expansion, marketing and finance. Moreover, the company needs to appoint independent members to the board of directors, which conceivably results in the best sources of objective advice. Most of the main stock exchanges and markets expects a listed company to have a majority of independent directors and this process should not be delayed until the last minute to begin.

Furthermore, corporate structure and organizational issues must satisfy the requirement for a public company. Both the NYSE and NASDAQ have specified and issued corporate governance listing standards concerning an IPO and listing of a company's equity securities, in which addressing matters such as board structure, and process, containing the recommendation of directors, compensation practices, and other matters. (Roadmap for an IPO. 2010)

Last but not least, the company needs to identify the going-public team for the IPO. The decision to go public is one of the most crucial and challenging ones in a company's history. A company needs expert counsel and assistance to execute a successful IPO. The company will have to select many of the participants in the IPO process, such as the auditors, lawyers, underwriters, accounting advisors and other professional advisors. The practice requires a large amount of a company's attention and possibly distract employees from the day-to-day operations of the business and may require employing additional staff. The difference between a successful offering and a failed attempt lies within the team devotion. (Roadmap for an IPO. 2010)

2.2.2 Choice of market

The company needs to decide upon which market to allocate the shares. Today, it is not obligatory that the company must select the domestic list, unlike a couple of years ago. For instance, a large company is the most suitable to be listed on its home country's main stock market and rather sells shares to domestic investors. A very large, well-established and profitable enterprise maybe advised to sells additional shares to international investors. Conversely, second market, for example NASDAQ OMX First North, is the most appropriate choice for young and small companies.

2.2.3 Underwriter

Companies can go through the whole process without an underwriter, but it is so complex and the experience is so specialized that it is hardly done. The complex market matters that are vague to most people are critical to the existence of underwriter, and it is in the best interest for a company to cash in on their expertise. The value brought upon by underwriter should be the guarantee that an IPO will be accurately managed and effectively marketed and supported, before and after going public.

Normally, the underwriter's agreement can come in two basic forms: Firm Commitment and Best Efforts. Using a Firm Commitment arrangement the investment bank will acquire all the new shares from the issuing firm and then be responsible to market it to the public. The compensation for the investment bank is the spread between their purchase price and public offering price. Using this method, the investment bank undertakes the full risk of not being able to sell all the shares at the determined price. By the best effort arrangement, the investment bank assists the issuing firm to sell their shares. The investment bank serves as an intermediary between the potential investors and the issuing firm. Using this arrangement, the investment bank does not bear the risk of unsold shares.

2.2.4 Document and legislation

Different exchanges have distinct regulations and documentation requirements. Therefore, these concerns can only be handled after the company decides on the offering structure, which defines investor's demographic and a precise stock exchange to list on. Afterward, the company and its underwriters must begin to prepare the required documentation for both potential investors and regulators. The main documents are registration statements and a prospectus which contains all the

financial and non-financial information that potential investors require in order to make the investment decision. In most countries, the contents of the prospectus must be approved by the local securities regulators before it can be distributed to potential buyers. (Bodie et al. 2005, p66)
The prospectus holds two important roles in the documentation process. It is a legal obligation that binds the offering parties with legal liabilities. And, it is the only document distributed to investors, and therefore the only opportunity for the issuer to persuade potential customers. A prospectus enclosing thorough information about the offering company can help reduce the risk for misleading future buyers. Nevertheless, balancing the two purposes is not an easy task. With excessive promotion, the prospectus may not provide sufficient disclosure, whereas too much legal information may overthrow the paper's selling purpose. Usually, an effective prospectus has to convey information concisely and accurately about the issuer's business, details of the offered shares and a summary of financial data. (Geddes. 2003, p. 54)

There are two types of prospectuses: preliminary and final. The preliminary prospectus is the first offering document provided by a securities issuer and includes most of the details of the business and transaction, also called "red herring". The final prospectus is published after the deal has been made effective and can be offered for sale, and succeeds the preliminary prospectus. It contains concluded background information including such details as the exact number of shares issued and the final offering price.

2.2.5 Marketing

After all required legal documents have been approved, the company and its consultants start planning for marketing and allocating the shares. Depending on the amount and complication of an offering, the marketing phase can take up to four months or even longer. In some cases, the marketing operation can run more than a year prior to the offering. The goal of this marketing process is to increase investors' awareness about the offering, by familiarize investors with the company before the IPO launches. Furthermore, IPO planning team may also boost corporate advertising, targeted either financial institutions or individual investors, and this is based on who is expected to offer the greatest demand for the offering.

Jenkinson and Ljungqvist (2001) describes the marketing process where the underwriter will also start pre-marketing the issue in order to get some information from the market (the potential investors). The investment bank desires to get some feedback that can be used when determining the offering price range. This process's length depends mostly on the current measure of public exposure of the company and it is often commenced before or simultaneously with the documentation process, prior to the publication of the prospectus. The initial price range will usually alters during the process and only be fixed when the final prospectus is printed, thus the formal marketing period starts. The marketing can be done in various ways. The most common method is Road shows. During a road show, the investment banker aims to publicize and promote the new offer by organizing interaction between potential investors with insiders in the company and asking questions regarding the upcoming offering.

2.2.6 Price Allocation

There are three commonly used techniques to issue shares in an IPO: book building, fixed-price and auctions. In the United States and most other countries, the book building technique is the most frequently used method to determine shares' price, but the auction mechanism has recently gained in popularity due to the internet (Anand. 2005). Which method is ideal is widely discussed in this paper. The next segments will explain the different systems followed by details on a couple of theories.

Auction:

- In an auction the allocation of shares is determined by bids, not taking any previous relationship between the investor and the underwriter into account. The auction takes an important part in generating information from the market about their valuation of the stock. In a uniform price auction, the underwriter announces a minimum acceptable offering price, about one week before the IPO date. Afterward, investors propose for a certain price or quantity of shares. After the bids are gathered, a demand graph is built and an equal offering price is determined for every selected investor. Finally, the shares are distributed, amongst the investors who proposes between the offering price and the maximum price, in a proportion basis. Other forms of auctions are discriminatory auctions, in which the investor pays what he bids; and dirty auction, where the price is set below the market clearing price.

Fixed-price:

- Fixed-price offerings are priced with no consulting on investor demand, with price finding mostly happening in the aftermarket. The offering price is usually fixed about one week prior to the IPO date and is announced and explained in a proposal document, i.e. prospectus. The shares are allocated among investors that bid on the day before the IPO, proportionally. The main benefit of fixed price offerings is low cost and the relative simplicity of implementing the offer. The investors know beforehand the genuine price they pay if they acquire a proportion of the shares. Nonetheless, whether this will be the ideal value cannot be certain up front, which poses the main shortcoming of fixed price offerings.

- This can trigger an informational cascade since investors who observe the actions of previous investors can revise their beliefs about the value of the issue (Welch. 1992). Therefore, issuers have to underprice their shares, to create positive informational and price cascades.

Book Building:

- The most commonly used IPO pricing system over the past decades is bookbuilding. (Sherman 2001) In a book building IPO offering, , the underwriters inspects the market for indications of interest of potential investors by piloting road shows. The underwriter sets a suggestive price range that reflects the market's valuation of the offer in the view of the underwriter. For the duration of the road show, the underwriter gathers the bids from investors and the amount of shares requested. Thus, "the book" is constructed. After this period, the underwriter constructs a demand curve of the collected bids and sets the final offering price. Nevertheless, convincing investors to disclose positive and honest information about the value of the company comes at cost, since investors understand that this information might affect the offering price. Finally, which is the main advantage of book building, the underwriting bank assigns the shares among investors at its own discretion (Benveniste and Spindt 1989). Because the underwriter can proactively distribute shares, the risk of issuing equity is lessened significantly, which compensates for the additional cost of higher underpricing.

- A study by Jenkinson and Jones (2004) generates results that book building is primarily used as an approach of allocating stock to longer-term investors. These longer-term investors will prevent the share price from decreasing in the immediate aftermarket.

Hybrid Offering

- In recent years, a new IPO pricing method have been designed, namely Hybrid Offering. When a firm goes public through hybrid offering, it practices a combination of different pricing techniques. The most commonly used hybrid offering is a combination of book building method for institutional investors and a fixed priced offering to retail investors (Sherman 2001). In this way, the institutional investors disclose their information during the book building phase and the price is set. The uninformed retail investors can acquire a fair allocation in the shares of a firm through the fixed price offering, while not concerning in the price-setting process. Hybrid offerings can happen sequentially, where a public offer follows the book build offering, but more recently they occur simultaneously, as this routine solves the timing difficulties experienced with sequential offerings.

3 UNDERPRICING PHENOMENON

Initial Return is perhaps the most prominent attribute of an IPO, portraying by a significant escalation in the market price at the end of the first trading day on stock market (Ibbotson et al. 1994, 67). This abnormality reveals that IPO shares are usually underpriced compared to where they could have been issued. This phenomenon describes an important problem: had IPO shares been offered higher, issuing companies could have raised more capital. Underpricing an IPO results in wasted capital that in a manner the lost money should be recorded as another listing expense. However, underpricing arises regularly at any time an IPO is recorded. (Geddes et al. 2003, 27.) Consequently, it has drawn enormous attention and produced far-reaching literature, which attempts to clarify this prominent financial phenomenon.

3.1 Asymmetric information model

During the course of a company going public there are three participants: the issuing firm, the investment bank, and investors. Asymmetric information models presume that the purposes of the three participants are not united and one of the participants has more information than the others.

Baron (1982) highlights that when a firm starts an IPO, an investment bank is signed up to execute the underwriting, counseling and distribution of the new shares. Baron conditioned that the underwriter has a better knowledge of the capital market than the company. The greater the uncertainty the issuer has about market, the higher the cost of the underwriting services becomes, and the greater underpricing level of the issue to encourage the bank to do their best effort to sell the security.

Asymmetric information supporters debate that there is a great uncertainty surrounding an IPO caused by information scarcity at the offering period. As a result, it is difficult to identify the true value of the securities. The situation generates two types of investors: those who have superior approach to information, and those who have limited information. Informed investors are in a superior position to focus on underpriced IPOs and discard overpriced IPOs. On the other hand, uninformed investors cannot assign their investment as efficiently as their counterparts, placing them at a disadvantage. However, the uninformed units usually comprises the majority of potential investors. Consequently, uninformed investors face a dilemma: they could obtain all the shares they requested only if the informed counterparts did not want the shares. This generates the winner's curse hypothesis. (Brealey et al. 2003, p. 412.) As a result, the existence of underpricing is intentionally formed to provide a motivation for uninformed investors to overcome this information unfairness (Rock 1986, 190-191). Conversely, Habib & Ljungqvist (1998, 383) presents evidences that underpricing will decrease IPO profits even without any change in uncertainty, proposing that the recorded positive relationship between underpricing and risk consideration is unconvinced.

There has been many more extensive examination of the asymmetric information theory. An empirical research to backing the view of Rock is printed by Michaely and Shaw in 1994. Their outcomes present that underpricing IPOs draw uninformed investors to the market as a compensation for the distributing unfairness caused by their lack of knowledge. IPOs where investors know beforehand that they are contending against only a few investors with better information are overall much less underpriced. IPOs where that knowledge is not revealed, show drastically higher initial returns, caused by higher underpricing level.

3.2 Agency Theory

Benveniste and Spindt (1989) created the Dynamic Information Acquisition model. In this model there are two types of investors: investors who hold good information about the listing company and investors who have bad information about the company. The model presumes that underwriters motivates investors to disclose the information they know about the company in exchange for setting a low offering price and providing advantages in future underpriced IPO distributions. As follows underwriting banks insure themselves of executing offerings in the future as well.

Ljungqvist study (2003) on agency conflicts in IPO underwriting investigates the effect of underwriter compensation on initial returns. He deduced that underwriter compensation and underpricing are supplements of each other. A higher gross spread is paired with lower underpricing.

3.3 Signaling Theory

The signaling hypothesis states underpricing as a technique for a company to signal its quality to the potential investors. The costs of underpricing are redeemed in the following second offerings.

Allen and Faulhaber (1989) demonstrates that underpricing of IPOs happens at certain periods in each particular industry. The listed company wants to imply their quality with a low IPO offering price. High quality firms are able to endure the cost of underpricing which lower quality firms will not be able to. Relatively small companies will either decide to stay private or go bankrupt struggling to go public. In a subsequent second offering, the losses of signaling is redeemed by high quality companies, while bad ones cannot afford to do the same.

This theory is approved further by the study of Welch (1989). Smaller companies cannot bear the cost of reproducing qualities of high quality firms. Via expanding resources and the underpricing cost to signal, high quality companies make it unable for bad companies to continue their operations. High quality companies believe they will recover the loss of underpricing with a higher price in a following seasoned shares issue.

This view is supported by Nanda (1988). Companies with less uncertainty practice underpriced IPOs as a means to convey their quality, meanwhile riskier companies usually desire to issue debt rather than equity.

However, Michaely and Shaw’s (1994) study have little support of companies signaling their quality through IPO underpricing. Quite the reverse, their findings prove that companies that underprice less, have higher earnings, admit dividends earlier and incline to reissue shares in a seasoned equity offering more frequently and for a higher amount.

3.4 Investment banker's monopsony

Underwriters with extensive power in setting the offering price can benefit from their position by underpricing the issue to lessen the marketing effort and favoring themselves with investors. This confliction of interest is well-known and has exposed to public eye in various occasions. Part of the Wall Street scandals of 2000-2002 involved the allocation of IPO security, in which underwriters offer generous IPO allocation to executives of specific companies in exchange for the company's future issuing business. (Bodie et al. 2005, 70.) While the practice is still common, strict regulations and supervision have reduced the rates and levels of the incident. However, in less cultured markets whose regulations are negligent, such as emerging markets, there is no assurance of the restriction of this practice.

3.5 Bandwagon effect hypothesis

The bandwagon effect hypothesis debates that potential investors take into consideration not only the IPO's information but also the actions of other investors. If an investor notices that nobody pursues security of a particular IPO, he or she may decide not to purchase even when there is promising information. To avoid this effect, the underwriter deliberately underprices an IPO to attract the primary few potential investors and therefore convey a bandwagon, in which following buyers will participate regardless of their own information concerning the issue. (Ritter et al. 1998, 9.)

3.6 Lawsuit avoidance

There are few institutional reasons for the underpricing phenomenon. One view emphasizes the significance of legal insurance leading to underpricing in the United States (Tinic, 1988). As private companies do not expose their information to the public, crucial knowledge to evaluate an upcoming IPO is limited for investors. Thus interested investors have to plot their research about the company by information from the underwriters. Additionally, both the company and the investment banks are held responsible for this information as commanded by law. The disclosure, which might be accurate at the time of publication, cannot guarantee that long-term accuracy nor account for fluctuations in management and financial position throughout the IPO process. As a result, both of participants are in risky position to possible lawsuit consequence, despite their intentions. The discount of an IPO functions as a practice to protect against legal liabilities and impairment to underwriters and the listed companies.

Nevertheless, Drake and Vetsuypens (1993)'s study of 93 companies in the United States discarded the lawsuit avoidance hypothesis. Their results showed that prosecuted companies are just at the same underpricing level as a comparable sample of companies that were not sued.

3.7 Ownership dispersion

The ownership dispersion hypothesis claims that IPO issuers aim to extend total return of the offering while reaching a favored ownership structure. Underpricing serves the underwriters as an instrument to attain ownership dispersion and a liquid secondary market. The investment bank deliberately underprices its shares to attract additional investors to achieve a large amount of small shareholders, individually with minor voting power. The intention pursues dual effects: for one, a spread ownership will fuel the stock liquidity on the market, as small shareholders tend to sell stocks for profit, rather than holding onto them for voting privileges. Additionally, this ownership spread makes challenging the board of management a much trickier course.

4 CASE STUDY - NASDAQ OMX HELSINKI FIRST NORTH

The following segment studies the First North as a whole by examining the current issues with Finnish financial market to comprehend the strategical importance of the existence of First North. Furthermore, the author inspects the difference between the NASDAQ First North market and the NASDAQ main market to extend the understanding of this market and to explain the reasons why First North market is such an important occurrence to both investing institutions and companies. The results will prepare the readers for the more immerse study in Chapter 5 about underpricing and its consequence to the studying market.

4.1 IPO situation in Finland and NASDAQ's proposed measures

Due to the low rate of IPO offering during the last decade, numerous investors and representatives of capital market members joined together in January 2014 to discuss and design proposals for improving the Finnish IPO and capital markets. The author studies this topic to further understand the importance of such an alternate market as First North. Relatively small companies affected by following obstacles may perceive First North as the only choice to go public before all the changes to Finnish regulations and listing barriers can be made.

The measures suggested for the Finnish IPO market are reviewed below:

4.1.1 Developing the Capital markets and ownership

In Finland, domestic shares are spread among a limited number of sizable institutional investors, while the small-and-medium-sized investors only possessed a small portion. There would be more depth, liquidity, and a better pricing mechanism on Finnish capital market if the market could attract more investors with broadly diverging viewpoints, risk outlines, and capital sizes. Pension insurance companies and public-sector pension funds are the largest lone investor group in Finland. In Finland, only approximately 6% (EUR 4.7 billion) in investment fund assets are directed into funds investing in Finnish stocks, while the corresponding share in Sweden is 30%. The Exchange encourages opportunities for pension funds to invest in listed equities in order to uphold diversity and liquidity of Finnish capital markets. Additionally, equity investing can be supported by distributing better quality, comparable information on public companies along with investment analysis. Equity research services should also be stretched out to cover all listed firms.

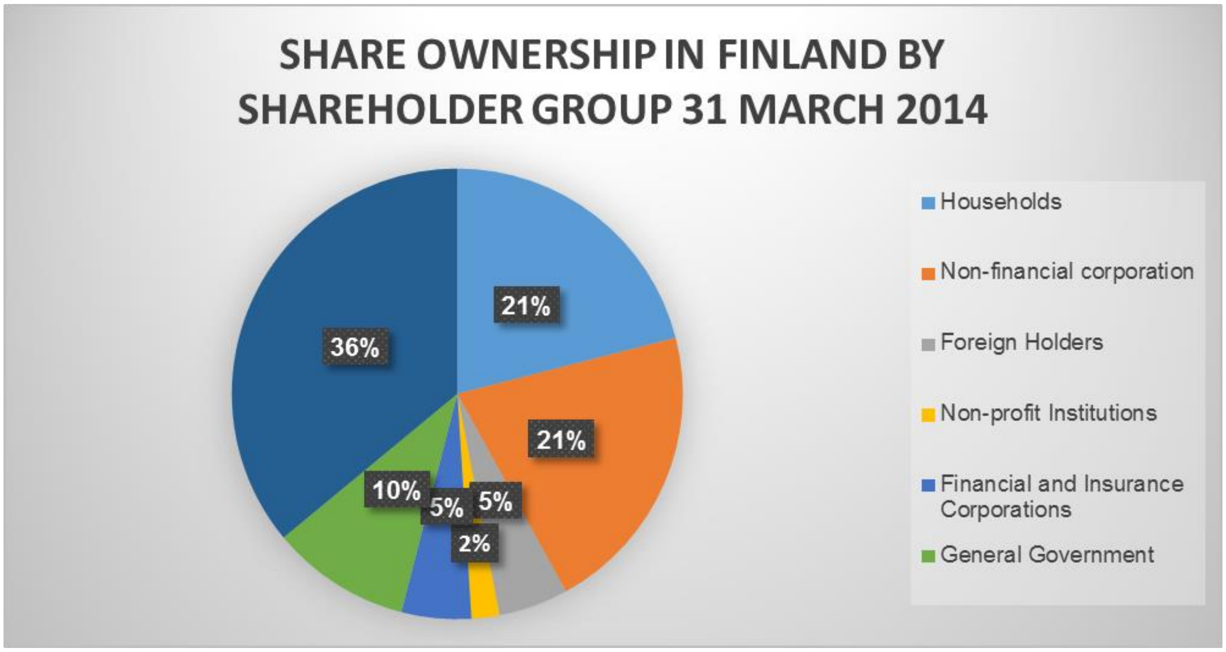

Figure 2 Current state of share ownership in Finland (Euroclear Finland statistics March 31, 2014)

Another problem with our listings market is a low stream of new listed companies. The amount listed companies is directly proportional to the attractiveness of the market to investors. At present, it appears that going public is not the most important aim for Finnish entrepreneurs. This is due to the concern for increasing administrative liability and publicity and fear that the information offered in the prospectus would expose business secrets to private competitors.

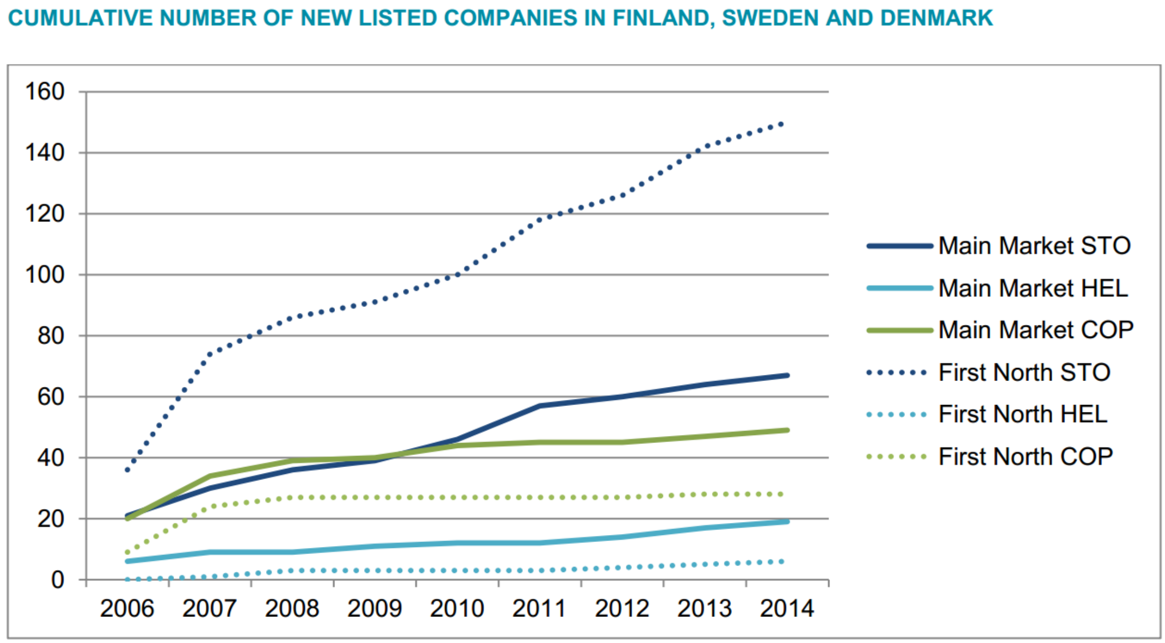

Figure 3Cumulative number of new listed companies in Finland, Sweden and Denmark (NASDAQ OMX statistics April 23, 2014)

Taxation plays an important role to the attractiveness of various investment opportunities as it affects investor's decisions. Currently, equity investing is more strongly taxed than debt investing in Finland. In Finland, the differing tax policy of private companies and public companies shareholders is undoubtedly the barrier to going public. In fact, the dividend tax rate of key shareholders usually increases heavily after the company gets listed. The private stakeholders of public companies pay 3.4 times more in dividend taxes than the ones of unlisted companies. This unfair tax treatment should be made neutral. According to the exchange, equalizing the dividend taxation of First North companies to unlisted companies is an urgent measure to Finnish administration.

Moreover, the current tax policy promotes equity investing through life insurance savings and investment funds. This is caused by the fact that taxation ignores fund dividends and there is no tax for capital gains in funds either. As fund and real estate investment is more economically attractive than direct equity investment, the private persons' wealth are commonly devoted to housing, along with funds offered by banks, life insurance savings, and other deposits. Direct equity investments incentives should be reinforced by means of tax neutrality. Generally, resources income tax system should be completely reformed to promote individual saving and investing. Unless this unfairness in the dividend taxation is corrected, there is a risk that innovative Finnish companies will pursue other opportunities to grow, listing in, for instance, Stockholm or London. Corporations might resign their growth goals or yet offer their business to foreign entities.

OMX also suggests the allowance of multi-tiered custody of securities to Finnish investors; that is when securities are held in the name of a broker or other nominee, instead of being held in the customer's name. The nominee registration is the usual prototype used in Europe, except for Finland and Greece, and other developed capital markets. The existing obligation for direct registration increases a significant amount expense for Finnish investors. The multi-tiered custody of securities would generate numerous benefits for the Finnish capital market through, for instance, superior liquidity, an increasing service offering, and open contest. Sweden practices a registration model, which provides investors with a choice between multi-tiered custody and direct registration. The adoption of this model in Finland would encourage competition, therefore easing the expenses of issuers and domestic investors.

4.1.2 Incentives for listing and reduce listing barriers

The mental barrier for going public is usually found to be high with the process being seen as generating extra work for the participant. Especially, the disclosure responsibility appears to create stress on smaller companies, with the fear of creating mistakes during the process, leaving the company's reputation with a permanent stain. Currently, there is only small degree of flexibility in domestic securities markets regulations since EU regulations are gradually being executed as directly applicable regulations. Up until now, EU regulations have generally been applied without consideration to variances in market size. Finnish public companies are fairly small, thus implemented regulations generates a relatively severer effect on Finnish companies than competitors in other states.

The perceived struggles and costs of adopting the IFRS is one of the main obstacles a company encounters when going public. Adoption of the IFRS takes up a lot of time and expenses, since a private company does not possess a proved financial structure required by IFRS. Therefore, the Exchange suggests the development of a substitute, simple version of IFRS for smaller listed companies at international level. Additionally, modifications to IFRS standards should only be considered if reckoned to be essential and conferring to an approved timeline.

On the other hand, to increase the attractiveness of Finnish market, the Exchange should be able to offer more interesting and diverse companies. This can be done by permitting to the trade of foreign companies' securities. In fact, Finland still does not possess a practical model for the registration of foreign company securities, which has been a major difficulty to the secondary listing of foreign companies in Finland. Currently, Sweden, Denmark, and Norway occupy superior book-entry systems comparing to the Finnish system, as their foreign shares registration system is practical and efficient. In order to attract foreign listings, Finnish book-entry system should firstly be improved to catch up with other Nordic systems.

In Finland, going public is broadly perceived as an expensive practice. Relatively small companies remark the listing expense and, especially, the preparation of prospectuses as the main obstacle. Although this perception is true at a certain degree, companies can still affect the total listing expenses. Nonetheless, relatively small companies, above all, find that efficient consulting services are difficult to find. Certainly, the lack of Corporate Finance consultants is an issue to Finnish capital market. However, the listing expense can as well be lessened by a better clarification of the listing process. Lower publishing costs drive up the number of listings, consequently further reducing costs by economies of scale.

Additionally, Finland needs to raise awareness of benefits from going public to, for instances, companies' growth and job creation. The publicity from getting listed is a dreadful fear in Finnish companies, as they worry that if a mistake in management may result in an excessive volume of negative publicity to the company itself. The media in Finland tends to concentrate on the negative attributes of the securities market. There are numerous highlights on individual errors in news about securities, granting these mistakes substantial publicity even with their insignificance. The media dedicates a smaller amount of consideration to the impact of securities markets in distributing capital, stimulating growth, generating jobs, and increasing prosperity by means of saving. In summary, there are still space for Finland to improve the public's perception to listed companies and going public.

4.1.3 Reducing the regulatory burden for listed companies

Generally, the variation of regulations to public companies is becoming difficult to manage. It is challenging for a specific public company to comprehend what standards essentially employ to its business. Guidelines should be made transparent, thoroughly defined, simple and user-friendly. Reading and clarification of regulations occupy a great deal of time and effort in listed companies. Instead of enrolling new guidelines, the prevailing regulation should be made more concrete. Here are the exchange's suggestion to reduce the regulation for listed company in Finland:

- Templates containing minimum requirements for Corporate Governance reports should be prepared.

- An advisory committee should be formed to specify key situations for regulatory interpretation and determine whether the administrative burden of listed companies could be lightened by means of new guidelines. If deemed appropriate, the committee would submit proposals on the new guidelines.

- It should be evaluated whether the disclosure procedure for stock exchange releases could be simplified by modifying technical requirements.

The regular disclosure requirement which is compliant with the Transparency Directive should be implemented in Finland without the adoption of any additional national requirements. As a result, the requirement for submitting quarterly reports would be eliminated.

4.2 Nordic Main Market versus First North

The main market of NASDAQ, is a standardized market directed by EU and supervised by national Financial Supervisory Authority (FSA), targeting well established companies. The main market’s regulation is more demanding than First North’s, and characterized by quality. Registering on the main market offers full exposure to the companies’ shares and business, thus attracts all kinds of investors, from international to domestic investors along with part-time and professional investors.

First North is a substitute choice to Nordic companies, with simpler requirements and procedures, and conducted by the Exchange and the Advisers. The common legislations in securities market, counting IFRS and disclosure requirements, are not implemented to companies on First North. The market is dedicated to small, fresh or developing companies. First North links the advantages of simple publication and the gateway headed for the main market. The less demanding regulations comes along with a higher risk to investments on First North, which possibly means better profit potential.

The First North market operates parallel to the main market, whereas the securities are exchanged in a single trading system. This benefits around 200 European members of NASDAQ OMX to simply trade on both markets. First North extends an opportunity to domestic and international investors to reach companies that are in an interesting stage of their growth. In addition, First North is a diversified market where companies represent a variety of industries, operating both in the Nordics and globally.

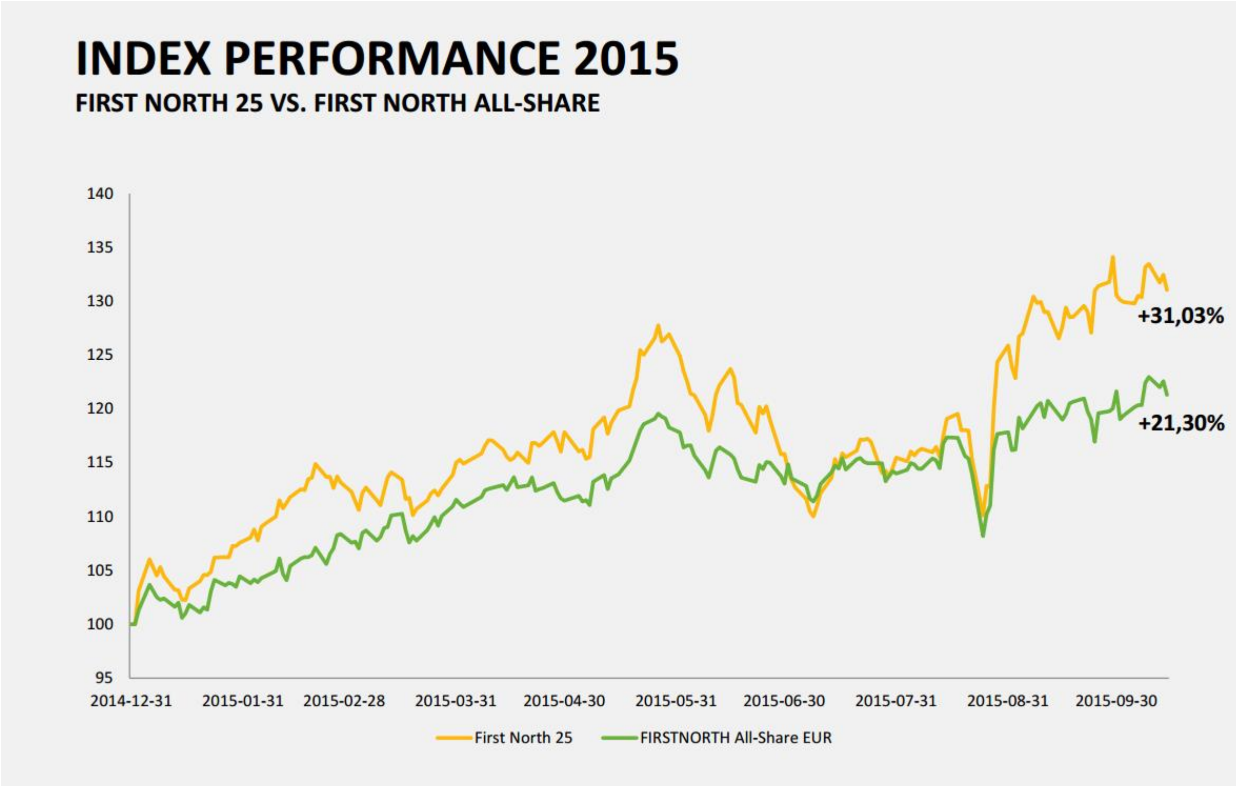

Figure 4 Performance index 2015(OMX NASDAQ, 2015)

First North market comprises of 204 listed companies, most of which are from Sweden, with 176 companies (86.27%). The rest are registers from Finland with 15 companies (7.35%), Denmark with 10 (4.90%) and Iceland with 3 (1.47%).

In term of market composition, First North is skewed towards Technological, Financial and Industrial sectors, with Health Care follows up closely. These 4 sectors takes up more than 60% of the total companies in the market.

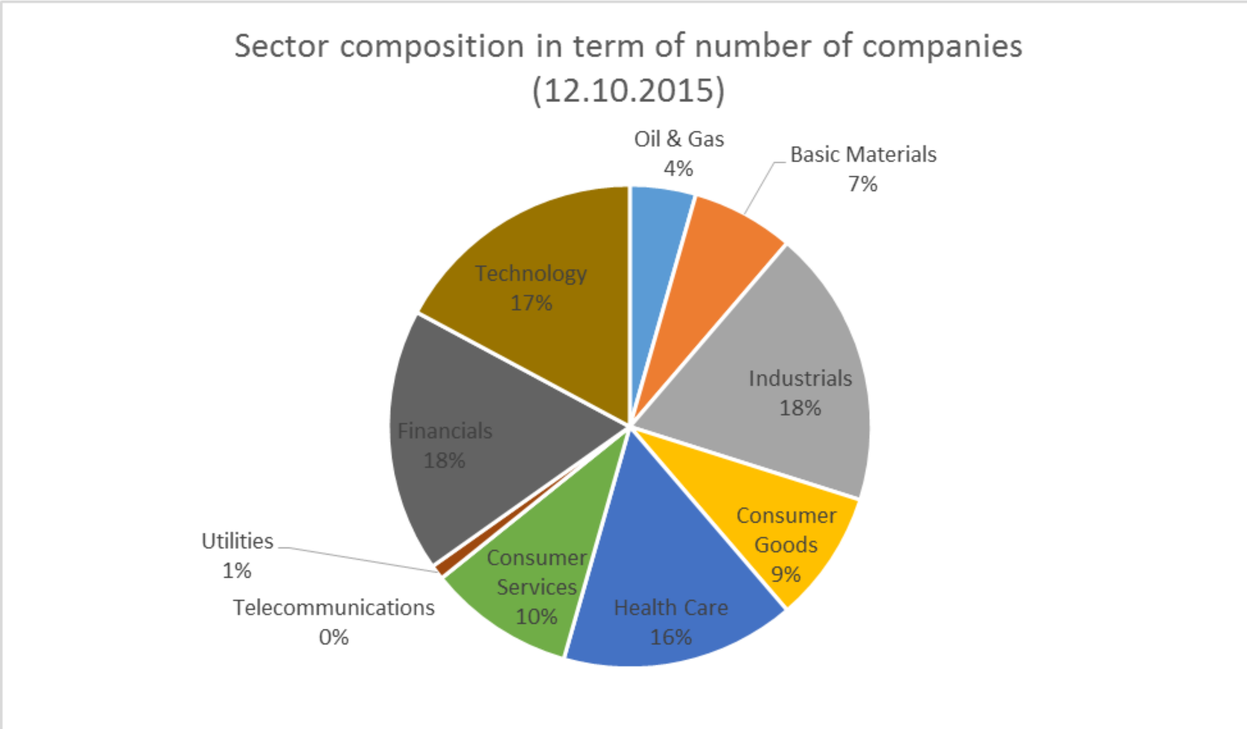

Figure 5 Sector composition in term of number of companies on First North (OMX NASDAQ, 2015)

A company from any country of origin or industry sector can register to NASDAQ First North, as long as there is investor interest to the company's securities. When a company consider listing on NASDAQ First North, the Exchange's staff can propose different options along with necessary information. The agent that guides the company through the application procedure is a called Certified Adviser. An application must be presented to the Exchange for consent before the securities trading can start. During the whole process, the Certified Adviser must guarantee that the company satisfies the conditions of Nasdaq First North on an ongoing basis

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4.2.1 Regulation and Process

Table 1 Differences in admission criteria for the Main Market and First North (OMX NASDAQ, 2015)

MAIN MARKET	FIRST NORTH
A prospectus must be prepared, published and approved by the relevant authorities prior to listing	Prospectus is needed only when securities are offered to the public
Legal examination	Examination by Certified Adviser
Listing approved by the stock exchange	Examination by Certified Adviser and Admission approval by the Stock Exchange
Sufficient operating history, including three annual accounts	Not needed
Demands on documented profitability or sufficient financial resources	Not needed
Minimum 25% of shares in public hands	Sufficient number of shareholders and at least 10% of shares in public hands, or an assigned Liquidity Provider
Minimum market value, 1 MEUR	No minimum market value
Demands regarding the administration of the company	Administration of the company supported by the Certified Adviser
Compliance with Corporate Governance code	Not needed Certified Adviser required at all times

4.2.2 Fees

Table 2 NASDAQ Equity Issuers Pricelist, Effective January 2015 (OMX NASDAQ, 2015)

	MAIN MARKET	**FIRST NORTH**
Fixed APPLICATION FEE	€ 45 000	€ 9 000
Maximum APPLICATION FEE (Fixed + Variable Fee)	€ 120 000	€ 9 000
Minimum ANNUAL FEE (< 20 Mil. EUR Market Cap.)	€ 10 500	€ 8 000
Maximum ANNUAL FEE	€ 73 500	€ 42 800

Application fees, or entrance fee to getting listed, are about 5-10 times cheaper at First North comparing to Main Market. However, when it comes to Annual Fees, this ratio turns into less than 1:2. This can be explained as the First North should not be seen as a ‘cheap market’ but rather an entrance for small and medium sized company to prepare for the main market, thus costing a lot less during the listing process but maintaining fees range are not too distant comparing to the Main Market. This can be further explained by matching other corporate action fees such as new issue, interim instrument, option rights and convertible loans, as the result shows that there is not much difference between First North’s fees and Main Market’s.

5 RETURN RATE OF OMX HELSINKI FIRST NORTH INITIAL PUBLIC OFFERING

This segment is where the main empirical study is conducted to examine the underpricing level in First North Helsinki. Firstly, the author summarizes the essential information about First North Helsinki. This groundwork is important as in four available markets of First North, the First North Helsinki is the only market this study desires to observe the underpricing level. Next, the research findings are displayed after collecting price and other IPO related data and apply these results to the return rate formula. The full details of the calculation can be found in Appendices segment at the end of this thesis. Finally, the author attempts to analyze the results using the final statistics and theoretical literature from chapter 3 to explain the causes and the price movement of the market and summarize the distinctive features of the First North Helsinki IPO price trend.

5.1 First North Helsinki

First North expanded to Helsinki in April 2007. Numerous large and well-known companies started their journey on First North, pursuing growth and obtaining experience. Many of these later advanced to listing on the NASDAQ OMX main market.

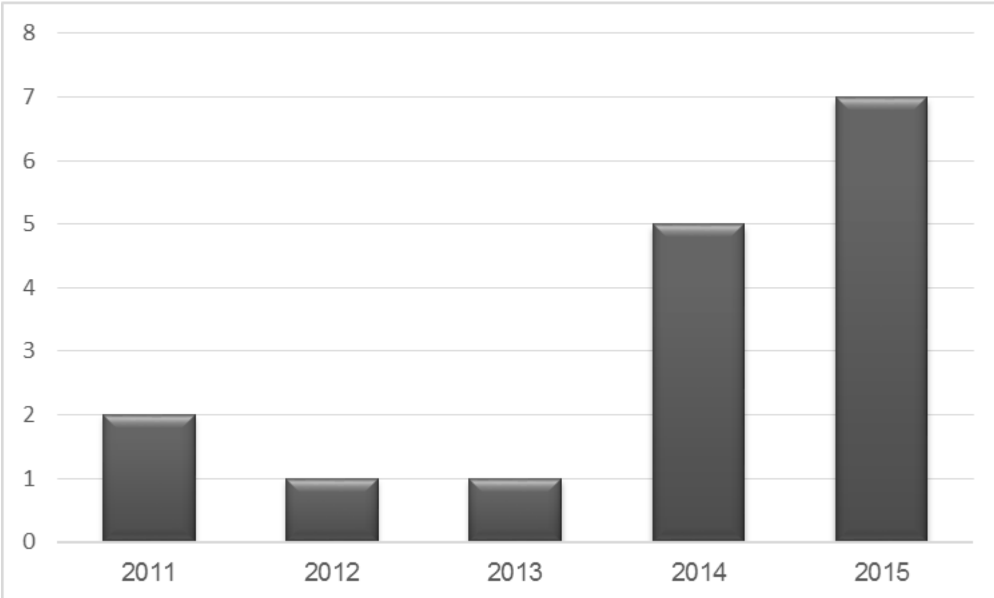

*Figure 6 Number of IPOs in 2011-2015 (*Only include current companies in First North Helsinki)*

First North Helsinki currently comprises of 16 companies (data on October, 2015), with total market capitalization at approximately 843 Million Euros. The most common industry sectors found in the market are Industrials, Financials and Health Care, followed by Consumer Services, Technology and Oil & Gas. However, Consumer Services is the sector with the most capitalization in the market.

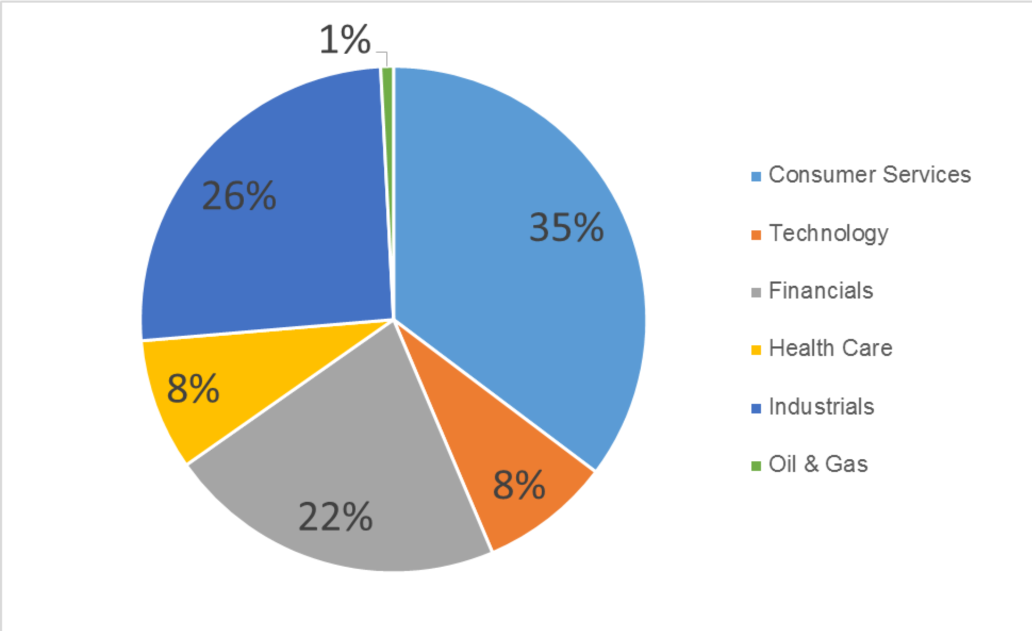

Figure 7 Sector Composition in term of Market Capitalization (Data on October, 2015) (NASDAQ 2015)

5.2 Return rate of NASDAQ First North Helsinki

5.2.1 Initial Return

The extent of the IPO Underpricing could be measured as the difference between the first trading price and the offering price divided again by the offering price. Modern IPO underpricing studies, which develop this model

$$R_{s,t} = \frac{P_{s,t} - P_{s,0}}{P_{s,0}}$$

$R_{s,t}$: The return of the share ‘s’ in the period t

$P_{s,t}$: The price of the share ‘s’ in the end of period t

$P_{s,0}$: The offering price of share ‘s’.

When t = 1 (or the period is day 1) the formula is used to calculate the Initial Return Rate of the share.

When t > 1 the formula is used to calculate the long-term underperformance level of the share. For example: return rate for 1 month, 3 months, 1 year …

The most common selection for period t is one day, which is known as ‘Initial’ return rate, as evidently used in researches about underpricing described in Chapter 3. However, the full scale of underpricing could only be assessed in a longer period, which holds more space for price movement. This reason influences the author to take in other time frames in this study. The selected periods are respectively: 1 trading day, 10 trading days, 1 month, 3 months and 6 months.

Additionally, even though the First North Helsinki comprises of 16 companies, the following analyzations will include data from only 14 of them. Zeeland Family Oyj (Short name: ZEE1V) started trading on First North in 2011 with their company name by purchasing Eiruvika, a previously listed company on First North since 2007. This company data will be excluded since there is no real offering for the listing. The similar case also happens to Savo-Solar Oyj, which also started trading on 2011.

5.2.2 Analyzations of First North Helsinki Return rate

This chapter will present the results of the formulas described above. The chapter starts with the descriptive statistics of the sample through different periods. Secondly, the feature of 14 IPOs, either underpricing or overpricing, will be presented followed by a discussion of these results. The chapter will end with an analyzation of the correlation between return rates and different market sectors.

Table 3 Descriptive statistics on return rates of First North Helsinki IPOs

	1 Day	10 days	1 month	3 months	6 months
Range	0.9453	0.9120	0.8874	0.9953	1.1889
Minimum	-0.8280	-0.8335	-0.8348	-0.8239	-0.7798
Maximum	0.1173	0.0786	0.0526	0.1714	0.4091
Mean	-0.1290	-0.1847	-0.1775	-0.1958	-0.2104
Standard Deviation	0.2942	0.2770	0.2722	0.2866	0.3473
Skewness	-1.7409	-1.4974	-1.5948	-0.9283	0.0738

As can be seen from table above, return rates among the time periods signify a decreasing pattern, from a 1 day average return of -12.90 percent to -21.04 percent average return within 6 months of trading. Overall, all periods disclose a negative return rate, which raises question about the existence of underpricing phenomenon in First North Helsinki.

From the statistics, the average return for the first trading day, the initial return, is -12.90 percent. The range is from a minimum of -82.80 percent to a maximum of 11.73 percent, causing a spread of 94.83 percent between both ends. The result of the first day starts the sequence of overpricing sensation during succeeding periods. Nevertheless, this is the highest average return rate found in 5 time periods the author chooses to conduct the research. The company with the lowest return rate is Verkkokauppa.com Oyj with a significant drop of the 33€ offering price to a day one price of 3.96 €. Nevertheless, Verkkokauppa.com Oyj is still the listed company with the highest market capital on First North Helsinki.

On 10 days trading period, return rates continues to decrease to -18.47 percent at average, with a little change to minimum return rate and a relatively strong drop to maximum return rate of almost 4 percent. The difference between 1 day and 10 days trading period is the most significant one among the inspected periods. If the multi-period research method is to account the time it takes to reflect the share's true valuation according to investors, this consecutive negative return rates indicate no sign for intentional underpricing for First North Helsinki IPOs.

Overall, the descending trend continues through 6 months periods, with a special interval of return rate increasing between 10 days and 1 month trading, only to drop even further below afterward. Generally, the longer investors hold onto the shares the greater the loss is. Consequently, investors who still own First North Helsinki IPO shares 6 months after the listing suffer the worst, to an average of 21.04 percent loss. The movement again confirms that underpricing phenomenon does not essentially exist in the researching market. According to the theories in chapter 3, underpricing happens for various reasons but possess the same effect on the market – increasing attraction to new domestics and international investors. If the investor base is more varied and greater in quantity, the market achieves a better liquidity thus boost the likelihood that a company could raise the capital it needs. Additionally, there is a decline in skewness level, which proposes that the return rates are gradually more evenly distributed after the IPOs.

On a case by case basis, the highest return rate is 40.91 percent and belongs to United Bankers Oyj. This company return rate has a great increase between 3 months and 6 months period, from 9.09 percent to 40.91 percent. It is also the greatest transformation between 2 consecutive periods of any share in the research. On the opposite, the highest recorded overpricing share belongs to stocks of Verkkokauppa.com Oyj, with a return rate of -83.48% after 1 month of listing. The next 3 lowest return rates also belong to the same company.

Table 4 Number of Underpricing and Overpricing IPOs in 2011-2015

	Underpricing	Overpricing
Number of Companies	5	8
Mean	0.0733	-0.2716
Maximum	0.1173	-0.8280
Minimum	0.0086	-0.0236
Standard Deviation	0.0429	0.3238
Skewness	-0.9038	-1.1484

The study finds that the overpricing phenomenon is dominating in the sample. Except for Savo-Solar Oyj with initial return rate of 0 percent, 8 out of 13 companies have negative return rates after the first trading day. Furthermore, overpricing IPOs have more dramatic changes in initial return rates, with an average rate of -27.16 percent comparing to 7.33 percent of underpricing IPOs. The lower negative skewness indicator of overpricing return rates suggests a high price movement of several IPO cases. In this sample, they are Verkkokauppa.com Oyj and Taaleritehdas Oyj with initial return rates of 82.80 percent and 70.87 percent respectively, highly stretched from the next overpricing case of 33.33 percent.

On the other hand, investigating on IPOs with positive initial return rates hardly display a significant underpricing phenomenon in First North Helsinki. The positive return rates are moderate comparing to their negative figure counterpart. The highest return rate belongs to Piippo Oyj with 11.73 per cent, thought this descends over the next 10 trading days to -0.67 percent and continues to -22.67 percent at 6 months trading period. Comparing to overpriced shares, skewness level for underpriced shares show a lower value, suggesting a more consistent trend due to the lack of particular unusual-return-rate cases.

Studying on special cases shows that Savo-Solar Oyj IPO is the only case with a 0 percent initial return rate. However, this declines over later periods, resulting in a -35.00 percent return rate at 6 months trading period. Alternatively, Detection Technology Oyj shares mark 0.38 percent return rate after 6 months trading, making it the only IPO converting from a disposition to another, in this case from an overpriced level after the first trading day to positive figure return rate afterward.

Table 5 Market Sector Underpricing and overpricing

Average Return Rate	1 day	10 days	1 month	3 months	6 months
Consumer Services	-0.8280	-0.8335	-0.8348	-0.8239	-0.7798
Technology	0.0239	0.0109	-0.0096	0.1153	0.0893
Financials	-0.3271	-0.3278	-0.3134	-0.2749	-0.1183
Health Care	-0.1161	-0.1661	-0.1406	-0.2486	-0.2597
Industrials	-0.0047	-0.0890	-0.0864	-0.1205	-0.2025
Oil & Gas	0.0000	-0.1750	-0.1500	-0.2500	-0.3500

From the statistics, the lowest return rate belongs to Consumer Services sector with an extensive gap to others. This can be explained by the unusual high overpricing level of Verkkokauppa.com Oyj.

According to the data, IPOs in five out of six sectors result in overpricing. Technology sector is the only one group maintaining a positive return rate overall, except for 1 month trading period. This resulted from the vast growth of technological companies in Finland and demonstrated investors' confidence about Finnish Technology companies.

However, the most potential sector should be Financials group. The average return rate of this sector increases 20.88 percent through the researching periods, which is the highest figure in 6 sectors. This signifies a generally well operating business

5.2.3 Deduction

In summary, the analysis shows that the return on First North Helsinki share is not very desirable, which corresponds to a consistent overpricing level. The market, as defined by NASDAQ OMX, is uncertain and risky. The result above shows that investors taking part in First North Helsinki overall suffers loss after IPOs. Even though there are several underpricing cases, the statistics hardly expresses a clear trend toward the understudying phenomenon. On the other hand, the overpricing cases are dominating in the market, with several IPOs with unusual high overpricing level. Nevertheless, investors who purchased shares in Technology sectors are the most profitable one, as only this group sustains an overall positive return rate through the researching periods. Additionally, Financials sectors have the most promising value with a consistent increasing return rates. The longer investors hold onto Financials sector's shares, the better the profit may turn to be in the future.

However, this lack of positive initial return rates also comes with positive implication. As investors benefits less from selling IPO shares, the issuing companies profit from the process by raising more capital. It is true that companies and investors might be on opposite stances in term of IPO benefit. To a company, the whole purpose of the IPO is to raise as much capital as possible. They are not doing the market some grand favor in return for a loss in their most important financial campaign. As explained in chapter 2, primary market is where companies raise capital for future investment, which is an essential difference from secondary market as companies gain nothing from it. Furthermore, companies did not enlist an IPO so they could survive for two months. They raised capital so it could survive for twenty years or a lifetime, by taking new equities to leverage up their business so they can multiply profits. On the other hand, not all investors on IPO expect a quick return when purchasing a company's shares. In some cases, long-term shareholders could benefit from an over-pricing IPO as companies could access to more capital and grow stronger, which profits shareholders even more in the future.

Moreover, this can be deduced as a move to support new and growing companies in Finland. As the universal common points among First North companies is their miniaturization in company size and capital. As the theories on chapter 3 have mentioned, underpricing phenomenon is big corporation's specialties. By underpricing their IPOs, companies could demonstrate their capital strength and confidence in their business, thus regaining their loss by later secondary issues. First North companies, however, hardly fit in this category, as they need as much capital as possible to survive and grow in time. A small difference in number in the early stage can lead to huge influences in the future, especially when companies are in shortage of means to execute a secondary offer. This can also be perceived as another method to achieve economic growth, instead of emerging by attracting new investors through underpriced IPOs.

6 CONCLUSION

Investment is an essential determinant of economic growth and generates wealth for entities. It is also an unpredictable and complex activity to accomplish without the support of different tools along with extensive investigation and knowledge about the matter. This research is conducted to reinforce those who are taking part in IPO investment in Finland, both investors and companies. Precisely, the author inspects different proposals to the Finnish securities markets by the Exchange. Furthermore, the paper studies about the First North and conducted research about underpricing phenomenon. The section will discuss further the results from previous chapters.

6.1 Reflection about First north and Investment decision on First North Helsinki

Finnish financial market is one of the most potential aspect to economic growth that has not achieved its expectation. Numerous investors and capital market agents has discussed and designed proposals for improving the Finnish IPO and capital markets. The foremost measure to facilitate the Finnish financial market is to develop a stronger and more versatile securities market and provide support to potential entities. Additionally, the Exchange displays existing barriers to companies in Finland as they tackle the listing process. The measures suggest more devotion to assist companies with consulting tools to reduce time and monetary expense, as well as raising awareness about the benefit of IPOs to the public. Lastly, a more transparent and simpler guideline along with concrete regulations should motivate more Finnish companies to enlist their shares to public.

The empirical study finds that only an insignificant underpricing level exists in First North Helsinki IPOs. The return on IPO investment in First North IPOs stands at -12.90 percent, which indicates that investors would likely suffer loss if they sell shares shortly after IPOs. The high level of overpricing level suggests the favor toward companies' growth instead of investor's attraction via high initial return rates. The author also take in consideration the special features of First North companies to explain the low return rates, as small cap companies can hardly endure a high underpricing IPO but have a tendency to concentrate on raising as much capital as possible. The domination in underpriced IPOs and low level of initial return rates have further approved this expectation. Additionally, this study also examines the relation between industry sectors and return rates, in which the outcome indicates the potentials of Financials and Technology companies to investment decisions.

In summary, the author identifies First North Helsinki not as the potential market for short-term profits from IPOs but rather a prospective market for long-term investors who are interested in risky but rewarding investments. More and more companies have enlisted to First North as a mediate step to raise capital for operation and potential investment. The existence of the market is undoubtedly a crucial determinant toward prosperity of Finnish financial market and economic growth.

6.2 Future Research Possibilities

6.2.1 Initial Return rates for Finnish Main Market IPOs

This study focuses on IPOs of First North Helsinki, an alternate market specializing for small and medium sized companies. As smaller companies tend to overprice their IPOs in order to raise more capital, it is hard to judge the overall initial return rates of IPOs investment in Finland based on the results from First North market. In order to attain a better judgement, the author suggests a more expansive study about the OMX main market of Finland. The main market is the where bigger companies trade thus provides a better insight about underpricing level of Finnish IPOs. Based on that result, further statements about current situation and attraction of Finnish securities market can be made. This information would reinforce the development of strategies to advance and regulate Finnish companies' IPOs as well as provide Finnish companies with better insight for future decisions on going public.

6.2.2 Other determinants of IPO underpricing level

The study in this paper only takes into account the location of IPOs and industry sector of companies to investigate on IPO underpricing level. However, there are various theories discussing other factors influencing the initial return rates such as company's age, IPO size, time lag between offering date and listing date. An immerse investigation on these factors based on data from real market would provide better explanatory toward the trend of price movement of a security market. The degree in which these factors impact the market would differ from countries to countries, markets to markets.

Moreover, financial indicators study would supplement this thesis and provide investors with more powerful recommendation for IPO evaluation. These indicators may comprise of debt ratio, return on equity rate, price/earnings ratio and EBITDA (earnings before interest, taxes, depreciation, and amortization).

6.2.3 Long term performance of Finnish IPO shares

Underpricing phenomenon arises when the offer price is too low. In this case, the issue is understated and its price will ascend on the first trading day. However, the followed price may exceed its fundamental value. Accordingly, the trading value will drop over time, thus generating long-term underperformance. Consequently, shares from freshly listed companies are usually measured as an inadequate long-term investment. Combining this research with the study about Finnish main market would generate extensive results about IPOs trends in Finland, thus providing investors with more insights about IPO investment decisions.

However, in First North Helsinki case, the existence of underpricing IPOs is miniature. Moreover, some research cases display an upward price movement following the IPOs. These two factors have raised questions about a reverse scenario about First North Helsinki IPOs, as both of the common features of IPOs are swapped in this market. A research on this topic will benefit certain correlated institutions and investors interested in this market, as well as completing the assessment of IPOs trend in First North Helsinki.

7 SUMMARY

The purpose of this thesis is to investigate the profitability of First North Helsinki IPOs as an investing channel as well as to introduce the market as an alternate choice for relatively small companies to go public. Furthermore, the paper investigates the existence of underpricing, a well-known financial phenomenon and its presentation in investing in this alternate market. By design, the results have satisfied the research questions.

To begin with, theoretical framework takes over the first parts of this thesis. Different aspects associated with IPO and underpricing phenomenon are examined with the intention to provide the foundation for the empirical segment. Especially, the IPO and its price allocation mechanism are discussed in detail so that investors can achieve a more extensive view on the IPO process. Afterward, the study discussed underpricing with regard to motives, leading factors and international historical data. The information is then employed to analyzing the empirical results of Finnish market.

In the following segment, the author pursues for answers for the research questions in the empirical study. The current obstacles with Finnish financial market are presented, giving primary understanding to the existence and purposes of First North market. Afterward, general description and statistics of First North are then portrayed as for investors and interested parties could achieve a more extensive look into the market. To further this purpose, the author compares the First North market to the main market in essential details as well as listing expenses differences between the two markets.

Next, the author researched further about the studying subdivision of First North market – the First North Helsinki, pertaining to market formation. Afterward, regarding IPOs listing on the First North Helsinki, the author inspects their initial price movement in different time frames and categories the return rate to groups of interest. The findings answer first sub research question, in which the authors confirm the lack of underpriced IPOs on the studying market. Conversely, this displays the rational features of a market with small and fresh companies, in which IPO is probably the most important opportunity to concentrate on raising capital instead of attracting uncertain future investors by underpriced shares. The finding on positive IPO shares' performance suggests a promising investment for long-term oriented institutions and investors into First North Helsinki and Finnish securities market.

In conclusion, the author finds the First North market a potential investment opportunity regarding a long-term profit strategy for investors interested in Nordic securities market. To support this finding, the author also suggests three additional topics for further study to achieve a greater understanding of the First North share price movement as well as the Finnish main market as a whole. To conclude this thesis, the author expects that this paper could assist not only investors but also companies that desire to enlist to NASDAQ through an alternate market, as the main market usually packs with numerous obstacles and complex regulatory. This study provides the very first guideline and information as well as general statistics for such an aspiration.

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APPENDICES

Appendix 1

Details of current listed Companies on OMX First North Helsinki (Data on 15.10.2015)

	Currency	Exchange	Industry	Short Name	Market Cap	ISIN
Cleantech Invest Oyj	EUR	HEL	**Industrials**	CLEAN	€ 8,015,935.00	FI4000092523
Detection Technology Oyj	EUR	HEL	**Industrials**	DETEC	€ 65,402,424.00	FI4000115464
FIT Biotech Oyj	EUR	HEL	**Health Care**	FITBIO	€ 24,839,835.00	FI4000148606
Herantis Pharma Oyj	EUR	HEL	**Health Care**	HRTIS	€ 4,698,893.00	FI4000087861
Nexstim Oyj	EUR	HEL	**Health Care**	NXTMH	€ 41,287,089.00	FI4000102678
Nixu Oyj	EUR	HEL	**Technology**	NIXU	€ 26,342,871.00	FI0009008387
Piippo Oyj	EUR	HEL	**Industrials**	PIIPPO	€ 6,334,460.00	FI4000123070
Robit Oyj	EUR	HEL	**Industrials**	ROBIT	€ 93,715,010.00	FI4000150016
Savo-Solar Oyj	EUR	HEL	**Oil & Gas**	SAVOH	€ 6,884,553.00	FI4000123096
SAV-Rahoitus Oyj	EUR	HEL	**Financials**	SAV1V	€ 1,767,393.00	FI0009015713
Siili Solutions Oyj	EUR	HEL	**Technology**	SIILI	€ 43,953,073.00	FI4000043435
Taaleritehdas Oyj	EUR	HEL	**Financials**	TAALB	€ 118,259,961.00	FI4000062195
Talenom Oyj	EUR	HEL	**Industrials**	TNOM	€ 41,689,722.00	FI4000153580
United Bankers Oyj	EUR	HEL	**Financials**	UNIAV	€ 62,494,186.00	FI4000081427
Verkkokauppa.com Oyj	EUR	HEL	**Consumer Services**	VERK	€ 293,824,648.00	FI4000049812
Zeeland Family Oyj	EUR	HEL	**Consumer Services**	ZEE1V	€ 3,555,311.00	FI0009015580

Appendix 2

Price movement of Current listed Companies on OMX First North Helsinki, regarding to 4 different periods

	Start trade date	Offering Price	Day 1 Price	10 days	1 month	3 months	6 months	R-1	R-10	R-1m	R-3m	R-6m
Cleantech Invest Oyj	June-14	€ 0.65	€ 0.57	€ 0.42	€ 0.44	€ 0.41	€ 0.40	-12.31%	-36.00%	-32.31%	-36.31%	-38.46%
Detection Technology Oyj	March-15	€ 5.20	€ 5.07	€ 4.97	€ 5.13	€ 5.15	€ 5.22	-2.50%	-4.42%	-1.35%	-0.96%	0.38%
FIT Biotech Oyj	July-15	€ 1.56	€ 1.04	€ 1.06	€ 1.04	€ 0.88		-33.33%	-32.05%	-33.33%	-43.59%	
Herantis Pharma Oyj	June-15	€ 10.50	€10.59	€ 9.13	€ 10.00	€ 9.00	€ 6.60	0.86%	-13.05%	-4.76%	-14.29%	-37.14%
Nexstim Oyj	November-14	€ 6.35	€ 6.20	€ 6.05	€ 6.09	€ 5.29	€ 5.41	-2.36%	-4.72%	-4.09%	-16.69%	-14.80%
Nixu Oyj	December-14	€ 4.40	€ 4.17	€ 4.15	€ 4.19	€ 4.66	€ 4.62	-5.23%	-5.68%	-4.77%	5.91%	5.00%
Piippo Oyj	March-15	€ 7.50	€ 8.38	€ 7.45	€ 7.42	€ 6.73	€ 5.80	11.73%	-0.67%	-1.07%	-10.27%	-22.67%
Robit Oyj	May-15	€ 5.70	€ 6.19	€ 5.97	€ 6.00	€ 5.95		8.60%	4.74%	5.26%	4.39%	
Savo-Solar Oyj	April-15	€ 2.00	€ 2.00	€ 1.65	€ 1.70	€ 1.50	€ 1.30	0.00%	-17.50%	-15.00%	-25.00%	-35.00%
SAV-Rahoitus Oyj	June-11		€ 3.76									
Siili Solutions Oyj	October-12	€ 7.00	€ 7.70	€ 7.55	€ 7.20	€ 8.20	€ 7.90	10.00%	7.86%	2.86%	17.14%	12.86%
Taaleritehdas Oyj	April-13	€ 10.30	€ 3.00	€ 3.19	€ 3.48	€ 3.70	€ 3.65	-70.87%	-69.05%	-66.26%	-64.08%	-64.56%
Talenom Oyj	June-15	€ 7.36	€ 6.78	€ 6.76	€ 6.35	€ 6.10		-7.88%	-8.15%	-13.72%	-17.12%	
United Bankers Oyj	November-14	€ 33.00	€ 34.80	€ 34.15	€ 34.18	€ 36.00	€ 46.50	5.45%	3.48%	3.58%	9.09%	40.91%
Verkkokauppa.com Oyj	April-14	€ 23.00	€ 3.96	€ 3.83	€ 3.80	€ 4.05	€ 5.07	-82.80%	-83.35%	-83.48%	-82.39%	-77.98%
Zeeland Family Oyj	June-11		€ 8.72									

Appendix 3

Total Market capitalization Categorized by Industry Sectors on OMX First North Helsinki (Data on 15.10.2015)

Industry Sectors	Market Capitalization
Consumer Services	€ 297,379,959.00
Technology	€ 70,295,944.00
Financials	€ 182,521,540.00
Health Care	€ 70,825,817.00
Industrials	€ 215,157,551.00
Oil & Gas	€ 6,884,553.00

Appendix 4

Number of companies on NASDAQ OMX First North (Data on 16.07.2015)

		XSTO	XHEL	XCPH	XICE	Total	First North Premier
N 0001	Oil & Gas	9	-	-	-	9	-
N 1000	Basic Materials	13	-	-	1	14	2
N 2000	Industrials	29	5	2	-	36	5
N 3000	Consumer Goods	15	-	1	2	18	4
N 4000	Health Care	29	3	1	-	33	5
N 5000	Consumer Services	17	2	1	-	20	3
N 6000	Telecommunications	-	-	-	-	0	-
N 7000	Utilities	2	-	-	-	2	-
N 8000	Financials	31	3	1	-	35	8
N 9000	Technology	29	2	4	-	35	10
		174	15	10	3	202	37
Excluding 2 multiple listings							

The following 2 companies with multiple listings are only included in "Home Exchange" in the above spreadsheet.

	Sectors	Home Exchange	Also listed
Nexstim Oyj	4500	XHEL	XSTO
Savo-Solar Oyj	0500	XSTO	XHEL