Contributions of short selling

A qualitative study of short selling on the Swedish stock market

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Abstract

Since the subprime crises numerous articles examining short selling have been published, most of them present positive contributions of short selling to financial markets. Short selling, however, is continually a subject for criticism and mistrust. The critique presented by legislators, media and bankers are hard to back up with sufficient evidence according to the researchers in the field. There are assumptions that short selling contribute to increase financial crisis, short selling is also a subject to ethical questioning. The research question of this thesis is “how does short selling affect the Swedish stock market?” with the purpose to examine the positive and negative contributions of short selling, to generate an understanding to why it exist different perspectives regarding short selling.

This is a bachelor thesis written by two students at Umeå School of Business and Economics. The epistemological view of this thesis is interpretivism and the ontological standpoint is constructionism. By having this view the authors have drawn their conclusions based on existing studies. By identifying a set of factors that are needed to create an understanding about the negative and positive contributions of short selling, a theoretical framework was gathered and analyzed. After the analysis the authors conducted five in-depth interviews to get the views from respondents with a close connection to short selling. Analyzing the respondent’s answers with the theoretical framework the authors developed an understanding covering positive and negative contributions of short selling.

The conclusions made in this paper are that short selling overall is positive for financial market by arguing reductio ad absurdum. The author’s conclusion is that short sales strengthen the Swedish financial market in the long run by increasing market efficiency, liquidity and stability. Hence the critique against short selling are in most cases unjustified and based on lack of knowledge. Furthermore the authors of this thesis, based on the conducted interviews, argue that the conclusion can be a foundation for authorities in Sweden for future legislations. The conclusion is that the legislations overall is useful since they aim to prevent market abuse and gives security to the financial market. However, the authors have found indications showing that the disclosure requirement today is misallocating resources. Therefore the authors recommend that the Swedish Financial Supervisory Authority should investigate how much the disclosure actually is contributing to the market efficiency in Sweden. Furthermore, the authorities should develop a solution solving the problems regarding market abuse without restricting short selling.
Acknowledgements

The authors would never have had the skills required to write this thesis without the support received during three years at Umeå School of Business and Economics. Our gratitude is great towards all the lecturers the authors meet during our time here. Furthermore the authors would like to thank our supervisor Natalia Semenova, guiding and improving us during this research process. Finally, all our respondents taking time to participate and answering our questions with dedication should be mentioned, your inputs and knowledge is invaluable for this thesis.

__________________________  ______________________
Parsa Lalehzar               David Lennartsson
List of words
The key theoretical concepts and expressions that are used in this thesis are briefly described by the authors, in their own words, below.

**Arbitrage** - Taking advantage of price differences. Commonly anticipated to be risk free.

**Asymmetric information** - The different amount of information regarding the same subject different parties’ hold.

**Baisse** - Substantial declines in financial markets during a short period of time.

**Bear and bull** - Certificates where bull is for a market the investor think is going to increase in price and bear if the prices is to decline.

**Bid-ask spread** - The spread between the lowest offered buying price and highest selling price.

**Circuit Breaker** - Switch preventing overload, in finance i.e. by closing trade if the decline is abnormal.

**Contrarian** - Investors taking the opposite position against the majority.

**Credit default swap** - Swapping exposure of products between parties.

**Derivative** - Contracts that can be used as an underlying asset.

**Exchange Traded Fund, ETF** - Funds traded on markets, much like stocks.

**Financial instrument** - Any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity.

**Financial security** - Tradable financial assets. Can be divided to, debt, equity and derivative securities.

**Futures** - Financial contract obligating the holder to buy a financial security in a certain time at a certain price.

**Hausse** - Substantial increases in financial markets during a short period of time.

**Hedge funds** - Is a fund taking both short and long positions with main purpose of making profit at all times.

**Hedging** - Investments made to reduce expositor against risk.

**Herding behavior** - In finance, this term describes how individual’s behavior is affected by others.

**Long positions** - Long positions is when stocks are owned. Often reflecting the horizon the investor has for that particular security.

**Market efficiency** - Theory explaining that all available information on markets already is calculated to a securities price, making it impossible to in theory “beat the market”

**Market maker or specialist** - Individuals and companies providing liquidity to markets by buying and selling financial instruments.

**Naked short selling** - Like short selling, but the security sold in this case however is not in the seller's position. Naked short sellers sell something they don’t own and making profit, in hopes of later be able to buy and deliver the security, to a lower price than it where sold for.

**Post-earnings-announcements drift** - Earnings announcements that surprise the market will lead to a drift upwards or downwards in the price for a period.

**Random walk** - Assumption explaining stock prices being random and independent from previous movement.

**Seasoned equity earnings** - When new equity is issued by a public company.

**Short and distort**

**Short and distort** - When an investors after going short on a security tries to make the price decline by manipulating markets i.e. by spreading rumors.
**Short selling** - Explained by the U.S. securities exchange committee, SEC, as “A short sale is the sale of a stock that an investor does not own or a sale which is consummated by the delivery of a stock borrowed by, or for the account of, the investor. Short sales are normally settled by the delivery of a security borrowed by or on behalf of the investor. The investor later closes out the position by returning the borrowed security to the stock lender, typically by purchasing securities on the open market” (SEC, 2015).

**Short position** - Investors whom are short on the borrowed equity and are obligated to give back the amount they owe.
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1. Introduction

This chapter will focus on the background of short selling and will explain how short selling works. The chapter will present the problem discussion which derives in a research question. Finally the chapter will discuss the purpose and different objectives of this thesis.

1.1 Background

Short selling, speculation that a stock price will decline, is a controversial phenomenon that captured the headlines when several hedge funds earned big on the financial crisis of 2007 (Mölné, 2015). Short selling has even been called the dark art of Wall Street (Matsumoto, 2009). Short selling is not a new phenomenon, the first short sale took place in the Netherlands the year 1609 by a Dutch businessman named Isaac Le Maire, owner of the East India Company. After a conflict with the other owners at the East India Company, he sold both his own shares and shares he did not own, with the anticipation that the market price would be lower when it was time to hand over the shares to the lender. The following 12 months Le Maire made a profit since the East India Company shares dropped 12%. This angered other shareholders, and in 1610 the Amsterdam Exchange market presented the first regulation against short selling (Bris et al., 2007, p.1029).

Since then, short sellers have been blamed to cause declines in the stock market and this has led to various regulations against short sales (Bris et al., 2007, p.1030). For almost twelve years, between 1979 –1991, short selling was banned in Sweden (Ek & Petersson, 1994, p.5). The ban was lifted in 1991 and the trading volume with lending stocks increased in the following years. From the period 1993 May to 1994 April it reached a total value of 3 billion SEK (Ek & Petersson, 1994, p.54).

During 2007, short selling reached a peak level of 5.5% of the total stock trading in the U.S. and was said to be a contributory factor to the financial crisis (Di, 2014). Shortly after the bankruptcy of the America investment bank Lehman Brothers, one of Sweden’s biggest bank aimed to forbid short selling in Sweden after a restriction had been entered into force in various stock markets around the world (Svensson, 2008). Also Germany's chancellor Angela Merkel and the President of France Nicolas Sarkozy demanded action against short selling from the EU (SvD, 2010). The debate led to the introduction of a new regulatory framework from EU in 2012. The framework prohibited naked short selling and increased the transparency and began to apply in Sweden on November 1, 2012 (SvD, 2012). This meant that all major short sales had to be reported to the Swedish Financial Supervisory Authority (FI) and that naked short selling was banned.

1.2 How short selling works

Short selling is a speculative investment strategy, which is used to make a profit on the financial market. By short selling, or to “go short”, it is made possible to get a positive return if the stock loses value. Short selling means that someone sells a security, in most cases a stock, without being the owner of the asset at the time of the sale. This is made possible through intermediaries, which lends stocks to the short seller, and the short sellers are obligated return the stocks at a later stage. Since the short seller never actually is in possession of the stocks, it is called going short. After
borrowing the stocks, the short seller sells the stocks with expectations that the stock price will fall so he/she can pay the debt to the lender at a lower price. (FI A, 2013)

If the stock price decreases in value when it is time to repurchase the stock from the market, the short seller makes a profit. This is since the short seller manages to sell the stock at a high price and to repay the loan at a lower price, making the price difference into profit. Short selling will also include some charges for the loan and transactions cost. This makes a short sale into the exact opposite of a common stock purchase where the stocks is bought with the expectation stocks with the expectations that the stock price will rise. (FI A, 2013)

![Figure 1.1 – Steps in short selling](image)

Short selling can be explained by four steps.

**Step 1**: The short seller borrows stocks from the lender, i.e. 10 stocks.

**Step 2**: The short seller instantly sells the stocks to the market. The market price for the stock is 10 SEK/stock which lead to 100 SEK for the short seller.

**Step 3**: The short seller buys stocks from the market now at the lower market price of €5/stock, so the short seller only have to pay 50 SEK for 10 stocks.

**Step 4**: Short seller returns the borrowed stocks to the lender, leaving a profit of 50 SEK (fees not included).

Since short selling means that investors sell shares they do not own, they first need to borrow the shares as coverage. Various financial intermediaries can do this, and short selling can be done with or without coverage. Short selling with the promise to borrow the stocks is called regular short selling, if the short seller engages in short selling without coverage, it is called naked short selling (Riksdagen, 2012).

In Sweden everybody is allowed to short sell, however, hedge funds, individuals and market makers are the most common short sellers (Märder, 2014). These actors decide to go short because they are more predisposed to act on market volatility on short term. The most usual lender of stocks to the mentioned short sellers is funds, investment banks, banks and wealthy individuals, seeing the lending as an opportunity to make additional profit on their long term investments (Märder, 2014).
1.3 Problem discussion

Short selling is currently not prohibited in most western countries, however it is still a comprehensively discussed issue. In 2008 the Swedish financial minister, Anders Borg stated that “The 80s ban in Sweden simply moved the transactions to London and making regulations today without New York, Japan and Hong Kong simply will not give any result” (SVT, 2010).

During the financial crisis in 2007-09 most legislators in the world banned short selling for a short period (Beber & Pagano, 2013, p.1). United States Securities and Exchange Commission (SEC) released a statement expressing that short selling was banned because “unbridled short selling is contributing to the recent sudden price declines in the securities of financial institutions unrelated to true price valuation” (SEC, 2008).

U.S. senator and member of the House Committee on Government Oversight and Reform, Ted Kaufman expressed, during a hearing of Lehman brothers CEO Richard Fuld, his views regarding short selling as “Abusive short selling amounts to gasoline on the fire for distressed stocks and distressed markets” (Matsumoto, 2009). The argument made by SEC when banning short selling in a period during 2008 was that it could be used as a tool for market manipulation (Matsumoto, 2009).

According to Bris et al (2007) the critique presented by legislators, media and bankers are hard to back up with sufficient evidence. There are some assumptions that short selling contribute to increase financial crisis, short selling is also a subject to ethical questioning (Bris et al., 2007, p.1072). Regulating short selling, like EU in 2012, is hard to argue for and find evidence supporting such decisions (Bailey & Zheng, 2012, p.45). On the contrary, several studies argue that short selling has positive effects for the market efficiency and that a ban decreases the positive effects. According to Boehmer et al (2013, p.1384 & 1386) a ban on short selling increases the price volatility, at least for large cap companies, the intraday volatility were estimated approximately to increase from 5% to 10% during the two week ban in 2008.

1.4 Problem formulation

There are positive and negative opinions whether investors trying to speculate, vouch and manipulate stocks are using short selling in their favor, or if it actually is something contributing to the financial markets and its efficiency. According to the problem discussion there are different points of view when it comes to the negative and positive contribution of short selling on financial markets. This leads the authors to the research question (RQ) of this thesis.

**RQ:** How does short selling affect the Swedish stock market?

In order to answer the research question the authors will examine and analyze the following research objectives (RO).

**RO 1:** What are the main contributions of short selling?

**RO 2:** What were the effects of the EU regulations of short selling in 2012?

**RO 3:** How will short selling be in the future?
By answering the three RO the authors will be able to answer the RQ and develop an understanding for the positive and negative contribution of short selling.

1.5 Purpose

The author's purpose is to examine how short selling affects the Swedish stock market and thereby create a better understanding for the positive and negative arguments regarding short selling and why they exist. This understanding will generate an accurate description on how short selling effect the Swedish stock market. Hence this thesis could provide legislators a foundation for decision making in the future and extend prior research on contributions of short selling.

1.6 Disposition

- **Introduction**: This chapter gives the reader a basic understanding of short selling and its background. It also presents the thesis problem and purpose.

- **Method**: In this chapter the thesis methodological choices are carefully explained and describes the authors overall view on the approach towards reality and scientific knowledge. It also explains the data collection and limitations.

- **Theoretical framework**: In this chapter the authors present identified factors that are needed to create an understanding about what influences short selling and whether or not short selling is good for the market.

- **Empirical results**: In this chapter the authors present the conducted in-depth interviews with five respondents with a close connection to short selling. Each respondent represents a different perspective of the financial markets.

- **Analysis**: This chapter provides an analysis of how the empirical evidence is consistent with the theories that the thesis uses. The respondents opinions are linked together with the theoretical framework and serve as the basis for the conclusions.

- **Conclusion**: This chapter refers back to the research question and the thesis results are presented. The authors also present suggestions for further research.


2. Method

This chapter will present the authors prerequisites, the epistemology and ontology this thesis will be based on. Furthermore the chapter will present the research strategy used and explain the literature gathering. In the end of this chapter the trustworthiness, timeframes and confinement of this thesis will be presented.

2.1 Authors prerequisites

After three years at the Master of Science in Business and Administration program, the authors have developed an interest in short selling. The authors have noticed the negative reputation surrounding short selling. The authors aim to find out the negative and positive contributions of short selling. The regulation of short selling and the media attention short selling has received recent years are factors that have shaped the research question as well as the pre-understanding. Before writing this thesis the authors had a rather negative perception of short selling, a view which the authors interpret as a more general preconception without any theoretical linkage. However, the authors set the pre-understanding aside during the research process so that the thesis acquires as much scientific and objective interpretation as possible.

2.2 Research philosophies and approaches

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Table 2.1 - Fundamental differences between quantitative and qualitative research strategies

2.2.1 Epistemology

Bryman (2011) states in his book, Samhällsvetenskapliga metoder, how knowledge from different perspectives is best pursued. A scientific theory of knowledge called positivism advocates that only those events and phenomena confirmed by the senses can be regarded as knowledge (Bryman, 2011, p.30). Hence, it is only what can be predicted that can be regarded as real knowledge. Knowledge that cannot be weighed or measured is less interesting. Positivism is used to clarify and to test theories when developing scientific laws (Bryman, 2011, p.30).

Another scientific perspective, the interpretative approach, is not searching for the explanation but for the understanding of a particular event (Bryman, 2011, p.30). A researcher who uses interpretivism is trying to interpret the discourses and then reflects on the meaning. When using interpretivism the researcher should strive to create an overall picture of reality. Although positivism and interpretivism are two variations on an empiricist epistemology, they are often considered as opposites to each other (Bryman, 2011, p.32).
Since the author’s purpose writing this thesis is to examine how short selling affects the Swedish stock market, the authors believe that the interpretative approach reflects what the authors are trying to achieve. If the authors succeed in achieving an understanding of the effects associated with short selling, the authors believe that the results of this thesis will be relevant and interesting for policy makers, private investors and other stakeholders. Since the interpretation of collected material will form the basis for the analysis and substantially affect the thesis as a whole, the authors see clear element of interpretivism.

2.2.2 Ontology

The science that concerns nature of reality is named ontology (Bryman, 2011, p.35). In this context it is important to question whether social entities can or should be perceived as objective entities that possess one for the social actor’s external reality, or whether they should be regarded as constructions based on operators' perceptions and actions. The different standpoints are called objectivism and constructivism (Bryman, 2011, p.36).

Objectivism is the ontological standpoint that implies that the authors meet social phenomena in terms of external facts that are beyond intellect, which we cannot influence. Objectivism also implies that a social phenomenon has an existence independent of the social actors. Constructionism is the ontological standpoint that implies that social phenomena are constructed by social actors (Bryman, 2011, p.36-37). This means that researchers with objectivism as ontological standpoint looks at the facts with the aim of understanding how things work instead of creating facts through social experiences trying to understand why things work as they do. With constructionism as an ontological standpoint the research focus on the details of a social phenomenon with the aim of understanding the reality behind the social phenomena.

When studying the effect of short selling on the Swedish stock market and the future prospect, the authors aim is to examine how short selling affect the market and why. This indicates an ontological approach based on both objectivism and constructivism. When studying how short selling affects the Swedish stock market the authors will use an objective approach building an understanding based on conventional truth. This allows the authors to ignore facts that are not quantifiable and proven, such as feeling about short selling. This information will be gathered in the theoretical framework, but since the authors chose which theories to include this also indicates for a constructive approach. When collecting the empirical content the authors aim is to understand why short selling affects the Swedish stock market the way it do, the authors will solely be using a constructive approach and take into account others images of reality when constructing an own. Since different people perceive reality differently, the authors also aim to look at different perspectives when constructing an own reality regarding short selling. Hence the authors will focus on the details of short selling’s effects on the Swedish stock market with an aim and understanding the underlying factors behind short selling the authors have a stronger constructionist approach than objective.
2.2.3 Inductive approach
To seek answers about short selling, the authors will use an inductive approach. An inductive approach means that the empirical data is the starting point on which will derive a conclusion (Bryman, 2011, p.28). Another way to answer a research question is the deductive approach, which means that the starting point is the theory, which then is tested in practice (Bryman, 2011, p.26). One of the reason the authors will approach the research question inductively is that the authors intend to acquire a deeper understanding of the problem and to understand how, so the authors can derive a conclusion based on observations and individual statements.

Another criterion that should be fulfilled for the thesis is to be regarded as inductively, is that most of the work should be carried out during data collection and the analysis of this data (Bryman, 2011, p.28). This is how the authors have chosen to undertake this research process, to let the answers come to the authors during the work process until the authors have enough evidence to formulate a conclusion about the problem in the final stages of the thesis. The author’s ambition is that the thesis conclusion ultimately will help to examine the negative and positive contributions associated with short selling and to contribute with a realistic description on how short selling affect the Swedish financial market.

2.2.4 Research strategy
There are two methods that can be used when answering a research question, namely quantitative and qualitative. Bryman (2011, p.150) argues that quantitative research in general terms consists of collection of numerical data. These quantifiable data is collected and summarized in statistical form so the hypotheses can be tested and analyzed. According to Bryman (2011, p.150), the link between quantitative research and theory often is of the deductive kind.

When it comes to the qualitative approach, Bryman (2011, p.40) claims that this approach emphasizes more on words, unlike quantitative that focus on quantification. In addition, the qualitative method usually uses a strategy comprising an inductive and interpretive approach (Bryman, 2011, p.340). Hence, the qualitative method puts the emphasis on understanding and is more focused on interpretation than quantitative method is. This is why the qualitative method suits this thesis better according to the authors.

The authors decided to create a qualitative thesis. First and foremost this is because a qualitative approach is best suited to be used in in-depth interviews instead of for example statistical surveys. Since the authors need a deep understanding and to be able to ask follow-up questions, the authors believe that this approach is better suited. Furthermore, it would not be possible to create a quantitative thesis based on the few respondent intended to participate. Interpretations and understanding will be required and in-depth interviews offer the opportunity to be able to do so. The authors will interpret these interviews in accordance with the qualitative approach and since the thesis is inductive a qualitative strategy is best suited for this thesis.
2.3 Qualitative interviews

2.3.1 Population and sample of respondents
To get relevant result there are certain guidelines that should be followed when a researcher select respondents to a qualitative thesis. The respondents should be heterogeneous within the given homogeneity and the respondents should in some way be affected by the research question but may well bring different perspectives (Trost, 2010, p.137).

In this thesis the selected respondents are all related to short selling. To get a good variation all respondents represent different companies and perspectives. One requirement the authors had when selecting respondents is that the link to short sales must be relevant to the thesis research question and that they are skilled in the area of short selling.

2.3.2 Response-rate ratio and access
Early in the research process the authors noticed that short selling is an issue that interests and concerns many actors in the financial community, both locally and nationally. Despite this, the authors encountered problems finding respondents who could represent the different perceptions that the authors, based on the theoretical collection and processing wanted to include. Due to time constraint and the geographical restriction to the Umeå region, there were difficulties in making appointments for interviews with all of the relevant companies. Looking at the biggest short sellers on the Swedish stock market, it is foreign financial institutes with offices based i.e. London and New York. It would have been possible to do an in-depth interview with representatives from these companies over the telephone, or using Skype. But these institutes have declined the author's requests and the overall feeling is that these institutes were not keen to take part in this thesis. Sweden's ministry of finance also declined to take part and referred all the questions to FI. This lead to that the FI got to represent the states perspective as well as the regulatory perspective.

2.3.3 Respondents and perspectives
To reach a conclusion and to facilitate for the authors when conducting the analysis and discussion the authors chose to include different perspectives on short selling (see figure 2.2). This also meant that the thesis got a wider and fairer view on how short selling affect the Swedish stock market. To get representation from the stock market perspective the authors got in contact with Joakim Strid, head of Nordic surveillance at Nasdaq OMX Nordic, who accepted to be part of this study. To cover the market perspective the authors got savings economist Claes Hemberg from Avanza bank to
take part. Anders Wennberg, portfolio manager at Brummer & Partner represent the hedge fund perspective. The FI is represented by Ludwig Sandhagen, financial supervisor and finally Reimo Juks, PhD at Stockholm business school and today employee at Swedish house of finance and advisor for the Swedish central bank is contributing to this thesis with a research perspective.

![Diagram](https://via.placeholder.com/150)

**Figure 2.2 – Different perspectives of short selling.**

2.3.4 Interview structure

After creating a better understanding about short selling through collection of relevant facts and theories, the authors used a semi-structured interview technique while conducting the in-depth interviews. A semi-structured interview is formed by use of a so-called question schedule where the order of the questions may vary and there is an opportunity for follow-up questions and counter-questions (Bryman, 2011, p.206). This kind of interview fits the author’s aims perfectly since the authors prepared questions with the ability to shift sequence. At the same time, the authors wanted to have the opportunity to ask counter-questions to immerse additional information. Bryman states that the answers may vary from respondent to respondent (Bryman, 2011, p.415). Therefore, the opportunity to customize the order of the questions is important since the authors interviewed individuals on various positions and different perceptions on short selling.

Due to the geographical limitations the interviews were conducted over the telephone. Telephone interviews have some advantages over face-to-face in-depth interviews. One obvious advantage is cost. It is cheaper to make a qualitative interview over the phone, especially when the respondents do not live nearby (Bryman, 2011, p.432). Also, since the respondents have high positions their schedule are fully booked and it is easier to make time for a phone call than a meeting.

Bryman (2011, p.433) points out that there is evidence that the differences are small between the responses received by phone and by face-to-face interviews, however
there are disadvantages. It is not recommended to do long interviews over the telephone since it is easier for the respondent to end the interview compared to when interviews is done face to face. In addition to this, Bryman argues that the researcher cannot see the respondent's body language to determine how he or she responds to a question (Bryman, 2011, p.433). Another risk the authors were aware of with telephone interviews is the technical problems. Therefore the respondents was told that if the line were to disconnect they would immediately receive another call and if other interference were to occur the authors would have to postpone the interview.

Looking at the timeframe of each interview the aim was that the interviews should not be less than 20 minutes and no more than 40 minutes. This aim is to get enough relevant data while not overstepping the time line since the quality of the transcription must comply with the author’s requirements. Transcriptions of interviews are to be made directly after the interviews to facilitate the analysis for the researchers and to better recall the interviews (Bryman, 2011, s.428). The authors transcribed the interviews the same day to take advantage of the feeling from the interviews and avoid any misinterpretation of the recorded material.

2.3.5 Interview processing
In order to best analyze the interviews, after transcription the researchers should conduct a thematic analysis. A thematic analysis is one of the most common approach when analyzing qualitative data. The thematic analysis method is structured in such a way that the researchers seeking different indexes of qualitative data in the form of various themes. After this, possible sub-themes can be detected and lead to an even more accurate structural analysis (Bryman, 2011, p.528).

To divide the respondent’s answers into different themes, the authors created the themes so that they correspond with the three RO’s (see figure 2.3). The authors then structured the interviews so that the interview questions also corresponded to the three RO’s. The RO’s also were the foundation on which the authors based the theoretical framework on. The theoretical framework in combination with the empirical part lead up to the analysis. Since the authors in the empirical part present each respondent’s opinions based on the RO’s, the authors chose to directly start comparing their answers to see similarities and differences. This can be considered as a so-called between case analyses. The authors chose not to present any detailed analysis of the individual respondent, since the authors felt that the presentation of empirical data gives a good insight and understanding regarding what each respondent’s opinions. Instead the authors focused on comparing the answers the authors received from the respondents with the theoretical framework. The analysis laid the foundation for the conclusion where the RQ is answered.

1 Due to limitations in this thesis, the transcriptions will not be included. At requests the transcriptions can be provided from the authors
2.4 Literature gathering

The theoretical framework is as previously mentioned, see figure 2.3, based on the RO’s. The literature gathering for RO 1: *What are the main contributions of short selling?* focused solely on finding basic knowledge regarding short selling, such as pros and cons with short selling and how short selling actually works. For RO 2: *What were the effects of the EU regulations in 2012?* the authors narrowed the literature gathering to finding articles about different aspect of regulation and the EU regulation in particular. For RO 3: *how will short selling be in the future?* the authors had no incitements to gather any literature since previous articles combined with the respondents answers would help to analyze and draw own conclusions regarding the future of short selling in Sweden.

In the search for literature to use as support for this thesis the authors mostly used the search engine Business Source Premier. This engine allows the user to limit the amount of hits, or suggested article based on keywords, by using different tools. Using the library in university of Umeå and their search engine the authors acquired 122,384 suggested books, articles, reviews and web pages on this topic. The author’s first search for simply the word “short selling” in EBSCO, a tool collecting different databases, suggested 6,017 articles. Clearly a narrowing was needed. By using Business Source Premier and limiting the search to only peer reviewed articles the suggestions declined to 1,394. After this different combinations of words where used to find different perspectives of short selling. These delimitations forced the authors to choose from the different articles and by getting a brief understanding for the different articles by reading the abstract, an even more selective choosing of the articles were made. By reading relevant articles the authors found that they often referred and used other relevant articles. This gave the authors the incentive to search for them in EBSCO and mostly in Business Source Premier since the authors strived for the use of primary sources.
Example of words searched in combination with short selling was:
- Financial crisis
- Hedge funds
- Ban
- Market efficiency
- Restrictions
- Regulations
- Critics
- Information
- Financial regulations
- Market quality

The authors decided to use articles published by renowned journals in the theoretical framework and choose articles that in the author’s opinion gave different perspectives. The ambition has been to only use primary sources. This allowed control over what the references actually are communicating and gave the authors a clearer view of entire articles rather than fragmented selections.

Important for this thesis have been not to only collect science opinion of this topic but also media, legislators and other financial parties i.e. banks. To collect information regarding this EBSCO where less used and the popular search engine Google were used instead. This gave a good overview of newspaper articles and webpages to collect different perspectives and valuable information regarding legislations.

2.4.1 Critical assessment
Authors cited and referred to in this thesis are only used if the authors have had access to the primary source, by doing so misinterpretations of their words was avoided. The authors have not used secondary sources to avoid misinterpretations. The thesis manual at Umeå School of business and administration which should be followed as a guideline throughout this thesis states that “So called secondary references should be avoided as far as possible for quality reasons. If you cite a source second hand, you run a rather large risk of distorting its original meaning.” (Thesis writing in Business Administration - Umeå School of business and administration” 2014, p.40). There are four critical approaches that should be maintained in critique namely; rhetoric, tradition, authority and objectivity. An explanation of this is that problems should be evaluated by effective use of language and when other author’s works are being read it should be with a critical mindset (Saunders et al., 2012, p.77).

Using primary sources alone is not enough to secure the legitimacy of the sources the authors will use in this thesis as evidence. The authors mention earlier that peer review articles have been used, and also different tools to find background information about the authors of articles.

A high amount of articles have been processed and not all remained in this thesis. All the articles used in this thesis have been compared to other articles and any outstanding information widely different from other studies has been subject for discussion before making it to this thesis. The authors are obligated to make clear that the use of only primary sources is only for the use of academic articles and not in the case of media or books because the accessibility is circumstantial moderate.
One of the most fundamental sources of knowledge used in this thesis is a book written in 1994 by Ek & Petersson. It should be mentioned that this book is 21 year old and much have changed when it comes to short selling. The authors have used this book knowing and discussing this issue. The book is mostly used to get historical perspectives on short selling in Sweden, and its fundamental information regarding short selling is still the same and is confirmed by others. The book is cited by many previous studies in Sweden. As the authors will mention later in this chapter, the authors are not the first Swedish student covering some of the perspectives that is related to short selling.

2.4.2 Previous research
Short selling, as mention before is both an old phenomenon and also comprehensively covered. For the past years in Sweden bachelor and master thesis in Gothenburg, Umeå and Lund have covered this topic. In 2014 Karlsson & Kauerauf analyzed if short selling did affect the volatility on Swedish markets. Andersson & Börjesson thesis from 2008 examines how short selling influences the Swedish market (2008) and in 2010 Jönsson et al investigated divergent volumes of short selling in different branches.

In addition to these mentioned thesis, academic journals covers different aspects of short selling like its influence on the financial crisis (Liu et al., 2012) and about banning short selling (Marsh & Payne, 2012). These are just a few off the different researches done regarding short selling, the key articles and contributions in this subject will be presented later on in the theoretical framework.

2.5 Trustworthiness and authenticity
Assessment of a quantitative research is based on reliability and validity. In the qualitative method, there are alternative criteria for the assessment, namely trustworthiness and authenticity (Bryman, 2011, p.351). The authors have chosen to use these alternative criteria’s for the assessment of the qualitative thesis to achieve the best possible assessment of our thesis. Below the authors will describe them and explain how they will be used.

Trustworthiness has four sub-criteria, these are transferability, credibility, dependability and confirmability. Transferability means whether the outcome of the thesis is transferable to another environments (Bryman, 2011, p.354). Given that this thesis is specialized on short selling that is independent in its function and unchanged regardless of financial markets. Different countries have different legislations and politics deciding their view on short selling. Much of the literature gathered in this thesis should be considered transferable to other countries, assuming they have a financial system similar to most of the western countries. One of the studies presented in this thesis, written by Beber & Pagano (2013), is based on observations on 16,000 stocks in 30 countries. The authors have tried to create a general and clear view of what short selling actually is by gathering different opinions and analyzed them. So the authors result should as well be considered transferable.

Credibility ensures that the research is conducted by current regulations and that the results are outlined to respondents who participated in the thesis to confirm that the
researcher understood everything correctly (Bryman, 2011, p.355). The authors have chosen to use the respondent validation which according to Bryman (2011, p.353) implies that the researcher leaves the report or the transcription to the participants to confirm that the researcher interprets everything correctly or if something is misinterpreted.

According to Bryman (2011) dependability ensures the creation of a full description of all phases of the research process in a complete way. A further way to create dependability, he argues, is by allow colleagues to act reviewers of the process during the study. Even assessment of the theoretical conclusions of the research question is performed by the reviewers to see if it is well founded (Bryman, 2011, p.355). Since the authors have little time to work on this thesis, the authors have not had time to let someone examine the work in addition to the authors supervisor who gave advice and vital support in the work, and provided insight into whether the study’s direction is the right direction or not. By thoroughly describing the research process and the review made by the supervisor the authors consider this thesis dependability has increased. Furthermore, the university of Umeå have strict policies on how to conduct a bachelor thesis and before publishing the thesis have been subject for opposition and approved by the Grading Committee.

Confirmability implies that the researcher has the realization that it is not possible to achieve absolute objectivity in the study (Bryman, 2011, p.355). The authors have during the research process gathered empirical and theoretical material covering different perspectives and during this process the authors have tried not to be influenced by the respondent’s answers in the creation of the authors own conclusion.

When it comes to authenticity, there are several sub-criteria’s. These criteria’s revolves more around general issues regarding research consequences and policies (Bryman, 2011, p.356). The criteria for authenticity to be achieved are to present ontological authenticity, a fair idea, educational authenticity, catalytic authenticity and tactical authenticity (Bryman, 2011, p.357). The authors have chosen not to put any emphasis on authenticity and its criteria’s as the purpose of this thesis is not to create a true understanding of the individuals who participated in the thesis. Thus, the authors will not explain these sub-criteria any further.

2.5.1 Ethical considerations
In this thesis the main focus is on collecting different opinions and understanding for the subject of investigation. As mentioned earlier in this thesis, the methodology is to be objective. This sets high demands on the authors to present this subject and the opinions regarding this subject in an unbiased way. Short selling is highly discussed by many people. This means that the sample of respondents and articles must be carefully chosen to give a fair picture of the different perspectives. By doing this the authors hope to be able to create a representative picture of what short selling is, and by combining interviews and articles present a conclusion based on facts rather than presumptions.

When it comes to interviews respondents shall be informed that they have the right to cancel the interview whenever they want, that their personal information is kept confidential, that the respondent may remain anonymous if desired and that the
researchers only use the information collected in order to develop the thesis (Bryman, 2011, p.131-132). Before each interview the authors thoroughly explained for the respondents the ethical demands placed on the authors and explained what rights the respondent has when involved in a scientific research. All the respondents were informed about the information requirements, the requirements of consent, the confidentiality obligations and the utilization requirements. The authors explained the aim and purpose of the thesis for the respondents. Also, the transcriptions were sent back to the respondents for approval to avoid any misinterpretations before the authors started to analyze them. This gave the respondents the chance to add further comments that they might have missed during the interview.

2.6 Time frame

Before beginning this thesis the authors made a Gantt-schedule to plan and visualize the different sections of the thesis and set up different goals for when the objectives should be completed. It is significant for the authors to express that a bachelor’s thesis in business and economics are 15 ECTC credits and that the first draft of the thesis should be sent for opposition just about one month into the thesis writing. This is a limitation for the authors and sets high expectations to be precise and adjust their decision of subject matter to be possible to make within the time frame.

Below are the estimated Gantt schedules for the thesis.

<table>
<thead>
<tr>
<th>Table 2.2 – Gantt scheme</th>
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<tbody>
<tr>
<td>Research idea</td>
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<tr>
<td>Problem background</td>
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<tr>
<td>Research question</td>
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<td>Interviews</td>
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<td>Theoretical framework</td>
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<td>Empirical study</td>
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<td>Analysis &amp; Conclusion</td>
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<td>Deadline</td>
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| Week: | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |

Below is a Gantt schedule made in the period of finishing the thesis and representing the real amount of time spent on the different sections.
The real amount of time spent on most sections was longer than expected. A contributing factor is the author’s decision of only using primary sources for academic literature, resulting in long days of searching in databases. This made the literature gathering and theoretical framework to take more time than expected. Making sure that this thesis actually would provide future researchers with relevant information and for the authors to analysis different aspect of short selling the analysis section of this thesis is profounder than expected. These exceeding time frames have however not affected the researchers or limited the providing of information. On the opposite the authors believes that this extra time has resulted in adding more value to this thesis.

### 2.7 Confinement

Finding data showing the volumes of short selling is an unyielding task, due to the time restrictions. Since the EU regulations in 2012 NASDAQ no longer retain statistic over the short selling. The Swedish Financial Supervisory Authority (FI) is the ones, due to the new legislations, tracking all transactions exceeding 0.5% of a stock's market value. Transaction smaller than this is not accessible for the public. This limits the authors to only be able to present the data that is available for us. Another problem is that the purpose of stocks being borrowed not always is to short sell them.
3. Theoretical framework

This chapter is based on research objectives and is the basis to selected literature. This chapter will present factors that the authors have identified and consider needed to create an understanding about what influences short selling and whether or not short selling is good for the market. In order to answer the research question and to obtain a foundation for the interview questions, the authors have chosen to look at the contributions of short selling from a theoretical perspective.

3.1 Short selling

The authors mentioned and briefly explained in figure 1.2 how short selling works in practice. The authors will now by presenting an example try to demonstrate how short sellers make profit, and why stockholders lend their stocks.

Suppose Adam is holding 1,000 stocks of Company A, he is 25 years old and have a long investment horizon, he does not feel any urge to sell these stocks for the next five years. Eva is a hedge fund manager, she tries to maximize the funds profit and have a incitements making here believe that Company A shares will decline in value the up-coming month. Eva contacts Adam and borrows his 1,000 stocks, with promise to give them back by the end of the month. On top of that she pays a transaction cost of 500 SEK, brokerage fees of 300 SEK, and an interest of 2% for the borrowed amount. The stock price when Eva is borrowing the Company A stocks is 400 SEK and she sells the 1,000 shares for that price, gaining 400,000 SEK. Then she has to pay Adam 2%, in this case 8,000 SEK and in addition also pay the brokerage fees and transaction cost. So far Eva has made 400,000 SEK minus 8,800 SEK with gives her 392,200 SEK. She has to buy back Company A stocks and give them back to Adam in one month. If the share price declines, Eva’s profit increases. Let say that the share price has declined to 350 SEK when Eva buys the stocks to give back Adam, then the total price she would pay is 350,000 SEK and her profit will be 42,000 SEK.

In reality the financial actors that short sale is often much bigger than the two individuals, Eva & Adam, mentioned in previous example. The most common lenders of financial securities are Bank's own funds, insurance companies, and different funds. To borrow these shares there is often intermediaries such as banks and brokers whom the borrowers use. The primary borrower is hedge funds, individuals, trading divisions, asset managers, investment banks and investment funds. On the Swedish stock market there are a limited number of stocks approved to short sell. But that the stocks are approved does never guarantee that equity loans are available and therefore the opportunity to short sell a certain stock can vary rapidly over time. The supplies of stocks that can be borrowed constantly change and depend on the demand and other factors such as situation on the financial market and company-specific events (IG, 2015).

3.1.1 The use of short selling

There is a reason to why stockholders would lend their stocks. Lending of stocks is free from market risks and a path towards increasing the return on the equity portfolio through a lending premium, which supplements dividend income. This gives the borrower an opportunity to make a profit even if the stock is declining in value, if the borrowed stocks are used to short sell (Swedbank, 2012). The one who borrows stocks do not necessarily need to have any intentions to short sell. Borrowed stocks
can be used for their voting rights during an annual meeting as well (Ek & Petersson, 1994, p.14).

According to Ek & Petersson (1994, p.43) the borrower has multiple uses for short selling, which can be divided into three main groups:

- Arbitrage
- Hedging
- Speculation

Usually, the lender have a more long term perspective, long position, in mind compared to the one borrowing the stocks, taking a short position, for those certain stocks (Ek & Petersson, 2014, p.43). Each of the three main reasons will be explained below.

**Arbitrage**

Brealey et al (2011, p.57) explains the word arbitrage by citing “There is no such thing as a surefire money machine” and then continues with writing that this money machine is arbitrage. This kind of risk free, moneymaking opportunities will only exist for a brief period before the markets adjusts itself and the opportunity expires. In the case of short selling, arbitrage is used by taking opportunity on wrongly price setting on the market to make risk free profit. In practice a short seller acts on a highly priced stock, and then sells it when the price goes down (Ek & Petersson, 1994, p.14).

**Hedging**

Hedging is to insure and act towards risk. In finance, a common way to hedge against risk is by using different derivatives explained as different tools used in financial markets. Another type of hedging is for i.e. insurance companies charge a deductible, to limit the incentives of moral hazard, explained as taking advantage of asymmetric information (Brealey et al., 2011, p.645-649). Short selling is used as a derivative instrument to hedge, against an increase in stocks. An example of this is the delta hedge, this is when short selling is combined with options to neutralize the effect and risks in a stock (Ek & Petersson, 1994, p.50).

**Speculation**

To take risk and knowing that the profit can be big, but the loss in the theory, can be limitless. Short sellers hope for the invested stock price to decline, and in the best case the corporation default would give a big profit. The alternative is for the security to increase in value, and if a security only can lose 100% of its value, it can gain much more, something that exposes short sellers to a great risk (Ek & Petersson, 1994, p.50). Look again at the example above with Eva & Adam. If the stock price instead for declining to 350 SEK would increase to 500 SEK Eva would have to pay Adam 500,000 SEK and her total loss, with the other costs taken to account, would be 107,800 SEK. The biggest danger in this case being that the stock price increase in theory could be limitless. There are also other risks for individuals who take short positions. One of these is the so-called short squeeze. This arises when a stock that already is heavily shorted begins to increase in price, instead of declining in price. In other words the opposite of what the short sellers expect. When this happens it forces the short sellers to add to the increasing prices by selling their stocks, to avoid even bigger losses (Investopedia, 2013).
3.2 Legislations

During the mid-late 80's there was a deregulation of the financial markets, both in the international and Swedish financial market, in favor of free market forces (Ek & Peterson, 1994, p.5). The Swedish brokerage Act of 1979 forbade brokerage companies and banks to broker short sales for own accounts, which basically made it impossible for private individuals and companies to short sell shares (Ek & Peterson, 1994, p.10). This Act was created based on three main arguments: that the turnover on the Stockholm Stock Exchange was considered to be too small, that short selling was speculative and that short seller had information advantage over his opponent (Ek & Peterson, 1994, p.10).

In the 80's, the Stockholm Stock Exchange’s share trading increased significantly and the value increased from 56 billion SEK in 1980 to 412 billion SEK in 1988, this led to the fact that the Stockholm Stock Exchange could no longer be regarded as "too small" (Ek & Peterson, 1994, p.10). Ek & Petersson (1994, p.10) argued that the speculative element cannot be regarded as something unique in short selling since it occurs in all forms of stock trading, and the argument that one party has an information advantage applies generally, not only in short selling. This crumbled the three main arguments for the short selling ban and led to an investigation about the legitimacy of the ban, the investigation led to a considerably simplification on short selling on August 1, 1991 after a change in the law (Ek & Peterson, 1994, p.19) The short selling ban applied for about 11,5 years in Sweden (Ek & Petersson, 1994, p.10). After the deregulation, the market for short selling was rather small at first but took off when FI changed the tax regulations in 1992 (Ek & Petersson, 1994, p.11).

3.2.1 Uptick rule

In 1938 the uptick rule were created by the SEC. The rule prohibited short selling unless the price previously had gone up. This rule was untouched more or less until 2004 when SEC started an investigation and finally in 2007 all prohibitions were lifted. During the prohibition of short selling during the crises of 2007-2009 the market volatility increased not only in the U.S. but also in most stock markets around the world and SEC had to make regulations and actions towards short selling. (Schapiro, 2010)

3.2.2 Legislation after the financial crises

Several studies have been conveyed since the subprime mortgage crisis in 2007-2009. These studies explained the downside of regulation on short selling. Most of the bans and constrains against short selling during the financial crisis was harmful for the financial markets liquidity (Beber & Pagano, 2013, p.379). Constraining short selling will result in a reduction of the efficiency of price and information resulting from short selling (Diamond & Verrecchia, 1987, p.292). During the financial crisis there were a ban on short selling. The ban on short selling did in reality only reduce short selling on the markets during that period with 77% in U.S. large cap stocks (Boehmer et al., 2013, p.1364). In a study examining 665 samples of stocks banned for short selling during September 19 to October 8, 2008 the average overall short selling volume of the total trade, 21,4% declined to 9,96%. The reason to why the volume of short selling never reached zero was because of the fact that market makers still can hedge by short selling even during the ban (Boehmer et al., 2013, p.1373).
The ban of short selling did affect the price volatility, especially large cap stocks increased in volatility, from 5.09% to 9.33% (Boehmer et al., 2013, p.1384 & p.1386). The ban on short selling also results in market makers whom still can short sell, does so and more aggressively than they did before the ban. This behavior ends when the ban is suspended (Boehmer et al., 2013, p.1388).

Boehmer et al (2013, p.1393) did not find any evidence for the little increase of value in stocks that were observed after the ban. And these upward sloops are explained by the introduction of Troubled Asset Relief Program (TARP). TARP became introduced in 2008, as a result of the crisis. The U.S. congress authorized a 475 billion dollar bill to stabilize the economy. 250 billion dollar where dedicated to the financial sector and banks (US Department of Treasury, 2015). This makes it hard to draw concrete conclusions between the effects on the stock price the ban had, and how much the introduction made the same time, of TARP had (Boehmer et al., 2013, p.1393).

During financial crisis a common phenomenon is to blame short selling, short sellers are considered immoral and making their profits on someone else’s struggle, in 1997 the media and politicians quickly blamed short sellers in Asia for ruining the “Asian miracle” (Bris et al., 2007, p.1072). The subprime crisis led to a wild discussion among decision makers how to best regulate short selling. From November 1, 2012, new rules on short selling were introduced in the EU, the EU Short Selling Regulation, and it provides common rules across the EU (FI B, 2015). According to the European Securities and Markets Authority, ESMA, the aim of the regulation is to increase the transparency of short selling and to reduce risks associated with naked short selling. Another aim is to ensure that member states have clear powers to intervene by reducing risks against the financial stability and market confidence arising from short selling. The regulation want to ensure the coordination between member states and the ESMA. (ESMA, 2015)

In practice, the new regulation means that a common requirement regarding short selling applies in the member states. These requirements means that short sellers must be covered, either by borrow arrangements or to having borrowed the stocks before entering into short sales. In other words, naked short selling is banned. Another requirement is the mandatory reporting requirement to relevant authorities when short selling in shares are equal to 0,2% of a company's issued shares. (ESMA, 2015)

Juurikkala (2012, p.311) stresses that there is an ongoing tension in financial regulations between the industry and political pressures and he argues that this regulation is the product of the politicization of regulation since the recent financial crisis. Even though short sellers sometimes have bad intentions, their involvement by bringing markets down has been exaggerated ever since Isaac Le Maire took short positions in the East India Company in year 1609 causing a Dutch market collapse (Juurikkala, 2012, p.312). Juurikkala argues that even with all the positive sides of short selling such as contribution the accurate valuation of shares and the dissemination of information, regulators focuses on the negative sides of short selling, which is very few, and that is why regulators intervened so heavily during the recent financial crisis and 2012 with the new rules on short selling in the EU (2012, p.312).

Since the EU Short Selling regulation from 2012 focuses on disclosure and naked short selling, the member states can better handle issues regarding market opacity and
moral hazard now when the regulators can facilitate the detection of market abuse, making the market more transparent (Juurikkala, 2012, p.314). Another objective of disclosure regulation is to create a common disclosure policy since most EU countries do not have disclosure requirement for short selling the disclosure regulation creates a corresponding policy for the member states (Juurikkala, 2012, p.315). Regarding the ban on naked short selling, the main argument for a permanent ban is that temporary restrictions have proven themselves to be problematic, like in September 2008 when U.S. authorities suddenly restricted short selling causing a destabilizing effect on the market (Juurikkala, 2012, p.336).

Bernal et al (2013) examined which short selling regulation is the least damaging to market efficiency by exploiting cross-sectional and time-series variation in European regulations. Their findings suggest that all regulations against short selling that have been introduced in Europe since 2008 is harmful and damaging to market efficiency. Regulation that forbid short selling increased bid-ask spread and decreased the trading volume. Regulations forbidding naked short selling increased market volatility and bid-ask spread. Furthermore they suggest that regulation with disclosure requirements increases volatility and decreased trading volume. They find that no regulation at all is most effective against price reduction. To address the fail to deliver problematic, regulations banning naked short selling is the least damaging to market efficiency since this legislation is the only regulation that does not affect trading volumes. (Bernal et al., 2013, p.253)

3.2.3 Alternative uptick rule
In February 2010 the SEC commission accepted a rule that would restrict short selling when stocks are experiencing significant downfall in price pressure, the rule was according to SEC chairman Schapiro designed to maintain investor interest and market efficiency. The main reason the SEC proposed this rule was based on the financial crises taking place two years earlier, when a stock would drop 10% in one day it will no longer be a subject for short selling due to the rule, and a Circuit Breaker will kick in (Schapiro, 2010). At that time short selling would only be permitted if the price on the stock were above the current national best bid. According to Schapiro, short selling can have both harmful and positive effects, depending on the market conditions. Both market liquidity and price efficiently are positive effects of short sellers. Investor confidence might be undermined and stockholders can be distressed by short sellers and Based on these parameters the SEC decided to create the rule they named the alternative uptick rule (Schapiro, 2010). To restrain abusive short selling dragging down the stock prices even more during distressed periods and limit the abuse is one of the main goals of this rule (Schapiro, 2010).

After the financial crisis and the ease on short selling due to the new alternative uptick rule instead of the original uptick rule created in 1938 some critics have been presented. TV show host, Jim Cramer, along with three others were in 2008 collecting names for a petition they are submitting to the SEC expressing their view on the alternative uptick rule and expressing their desire for the SEC to re-implement the uptick rule (Cramer et al., 2008).
3.3 Positive contribution of short selling

Short selling has several positive effects on the stock market according to Bris et al (2007) and Boehmer & Wu (2012). They find that short selling contributes to an efficient market and accurate valuation. This is possible since short selling allows contrarian views to be expressed and therefore reduces the overvaluation on the market. It is widely acknowledged, for example (Liu et al., 2012) and (Srinivasan, 2013) describe that short sellers often are well-informed regarding news and possible outcomes and therefore has an information advantage, which is used to steer the market the right way. Another upside of short selling is that the market gets more participants, which in turn enhances liquidity (Juurikkala, 2012, p.312).

3.3.1 The efficient market

Before explaining the efficient market, the discovery by Maurice Bartlett should be explained. In 1953 he found out that the behavior of stock prices were not systematic based on previous behavior but rather based on what he called a random walk (Bartlett, 1953, p.48). The random walk means that there are no natural patterns to follow in the progression of stock prices; this means that the progression in price is independent from previous behavior (Brealey et al., 2011, p.315).

The understanding of the random walk should explain why markets must be efficient. If the random walk would not be true it would mean that investors easily could follow previous behavior to predict future developments and make an easy profit. But in a competitive market easy profits do not last in the long run. When investors try to take advantage of previous behaviors and act on it, prices adjust. This leads to a situation where previous information explains the price of today, in a competitive market the price does not only base itself on previous behavior but it also reflect the markets future expectations and all information available about the future (Mishkin et al., 2013, p.136-137).

3.3.2 Short selling and efficient markets

Short selling leads to higher market efficiency (Chang et al., 2014, p.424). In their study investigating the Chinese market Chang et al (2014) found evidence proving that short sellers tried to eliminate overpricing by taking short positions. During a prohibition this behavior were reduced and when lifted price efficiency and reduced volatility were shown (Chang et al., 2014, p.411). By limiting the ability for market makers with information negative to corporations, to act and by doing so is limiting the market efficiency, price discovery processes will slow down, especially in bear markets (Beber & Pagano, 2013, p.372).

Short sellers trade for 20% of the total volume on the market in the U.S. and are in the most cases individuals with access to information relevant for the market prices (Boehmer & Wu, 2013, p.287). Nevertheless, this information is not something the common short seller shares, but rather tries to trade in a way that minimizes a leak of information. When short sellers are active, price tends to be more accurate and adjusted to fundamental values, even given the fact that short seller’s tries to not leak their information they still have a positive effect on the prices on the market (Boehmer & Wu, 2013, p.288).
An example of when short sellers act as a price controller and make the market price adjust to rational amount is a study made by Hobbs et al (2012). The TV show mad money led by the host Jimmy Cramer gave individuals tips on with corporations stocks to invest in. Hobbs et al (2012) made observations of 1,234 corporations mentioned in the show and they revealed irregular price increases after appearing on the show. This increase lasted for a short time and in addition to this, short sellers started acting on these stocks at the time they appeared on the show. This indicated the function of short sellers as opportunists acting on other investor’s behavior leading to overvaluation of stocks (Hobbs et al., 2012, p.65).

By contributing to set the correct price on markets short selling also contribute to more information on the market. According to Bailey & Zheng (2012, p.2) market prices mirror valuable information in an environment of asymmetric information. So the short selling actually contributes to the efficiency of the market, and to spread in equal information.

3.3.3 Post earnings announcements drift
According to Boehmer & Wu (2013) markets react to all information available, especially when corporation disclose their books for a year or quartile. They argue that if a positive earnings shock is given the stock price tend to increase, and on the contrary if the news are negative (Boehmer & Wu, 2013, p.303). This means that prices not always are set right, this information known, alert investors still can use this information to make arbitrage, and this is called post earnings announcements drift (PEAD) (Boehmer & Wu, 2013, p.303).

Boehmer & Wu (2013) tested the hypothesis that if short sellers are opportunist they will react on this and there should be a clear behavior and correlation between bad news from corporations and increased short selling on that corporation. Focus in their study is on negative news because they find it difficult to see patterns about how short seller react on positive news (Boehmer & Wu, 2013, p.303).

Diamond & Verrecchia (1987) also funds evidence for PEAD, even if the actual word were not used, they stated that short sellers will react on bad news and that market prices slowly will adapt (Diamond & Verrecchia, 1987, p.298). This once more suggests the opportunity for short sellers to act and make profit on the bad news, and make arbitrage during the period of time it takes the market to adjust a new price.

Covering 15,536 different announcements and how short sellers reacted on news Boehmer & Wu (2013) tested four different categories were quartile one contained the most negative announcements and quartile four the most positive ones. Short sellers should according to their hypothesis react on the opportunity given in quartile one more than quartile four. And they found evidence for short sellers to exploiring the opportunity for arbitrage occurs during PEAD (Boehmer & Wu, 2013, p.304).

3.3.4 Information advantage
Srinivasan (2013) in Harvard Business Review presents a case regarding the amount of information that short sellers have. Short seller Jeremiah Hughes, started to short sale the stocks of a company named Terranola. Hence he encountered ominous warnings about the company's warehousing methods, patent expiration and unsold products. This had ripple effect among investors and the stock began to decline the
same day, leading to a stock devaluation of almost 30% in the subsequent weeks. This would have been malignant if the information about Terranola was false, but on the contrary the information that Jeremiah Hughes had encountered proved to be correct. Terranola had for a long time booked payments of stored inventory as sold, making the company’s earnings look much better than actual sales. (Srinivasan, 2013, p.133-136)

The case of Terranola implies that short sellers are well informed and that short selling as a financial instrument will contribute to a more effective pricing mechanism on stock markets. This is supported by a study by Bris et al (2007). The authors note that the short seller usually is well informed and that short selling contributes to a more efficient market pricing (Bris et al., 2007, p.1029). Liu et al (2012, p.201) agree with this argumentation in their study about short selling during the subprime mortgage crisis. Their findings that short sellers have an information advantage is supported on the fact that short selling increases long before a write-down announcement (Liu et al., 2012, p.201). Taking advantage of information is allowed in Sweden, but to improperly try to use short selling to manipulate market prices is illegal and such activities or if any suspicions occurs, they are immediately reported to Swedish economic crime authority and are regulated by the law of market abuse (Hedvall, 2008, p.1).

Karpoff & Xiaoxia (2010) argues in their study “Short Sellers and Financial Misconduct” that short sellers in fact are proficient at discovering overpriced firms, and firms involved in financial misrepresentation where company managers reports falsified financial statements. They investigated short selling in firms disciplined by the SEC from 1988 to 2005. The result shows that almost all firms was sold short the days before the misconduct was publicly revealed indicating that short sellers knew about it before it became public. Karpoff & Xiaoxia (2010) also discovered a positive correlation on the amount of short selling with the severity of the misconduct showing that short seller take large positions if the misconduct is egregious. Karpoff & Xiaoxia (2010, p.1911) draws the conclusion that short selling conveys this financial misrepresentation to other investors, which leads to a quicker process of the revelation. Short sellers therefore plays an important part in discover and mitigating the effect of financial misconduct (Karpoff & Xiaoxia, 2010, p.1912).

Explained earlier in the example of high price increases in the case of the TV-show Mad money and Terranola, short sellers tend to react on price setting they find irrational and wrong, in this way making a profit. This is not a coincidence; short sellers often take the role as contrarians, in periods where the markets for a long time have increased (Boehmer & Wu, 2013, p.309-310). This is not always an action leading the market prices to be correct. Shkilko et al (2012, p.345) found that short sellers destabilize prices by driving the prices too far away from the correct price, this was especially clear in a price decline.

Henry & Koski (2010, p.4415) presented similar conclusions. They found evidence showing short sellers acting before news reaches the public. Henry & Koski made a study where they examined SEO (Seasoned Equity Offering), emission from a corporation already noted on the market. Announced SEO: s are associated with decline around 2% in the stock value, short sellers with information about upcoming
SEO can take this opportunity and go short on that corporation before a public announcement (Henry & Koski, 2010, p.4393).

One of the hypotheses tested by Henry & Koski (2013) where to investigate if short sellers acutely acted in abnormal proportions before announcements about SEO. Henry & Koski (2013, p.4415) was not able to find any evidence for the hypothesis regarding short sellers having more information than rest of the market and acting on this by short selling abnormally high on corporations announcing SEO in the close future.

3.3.5 Market liquidity
According to Marsh & Payne (2012) short sellers contribute with liquidity to markets by giving more investors the opportunity to invest in the markets, hence legislations against short selling drain markets from liquidity. In their study examining the effects of legislation in UK during the financial crisis 2007-2009 Marsh & Payne (2012) found out that the reduced liquidity lead to higher price impacts, reduced market efficiency and also smaller role for price discovery. During the entire time of the ban the liquidity continued to decrease showing a clear correlation. This shows that the reduced liquidity was based on regulation, and not on other factors like the introduction of the TARP (Marsh & Payne, 2012, p.1985).

The reduced market liquidity also results in higher bid-ask spreads according to Marsh & Payne (2012, p.1981). A bid-ask spread is the differences between the highest listed selling price for a financial security and the lowest offered buying price. A bid-ask spread is a simple way to estimate market liquidity (Marsh & Payne, 2012, 1981). Hence, the more transactions it is for a stock the lower the bid-ask spread will be. Banning short selling increases the bid-ask spreads on stocks. If a stock is listed on two markets a ban on home market shows to increase bid-ask spread in both markets, while a ban on the foreign market show to only affect the bid-ask spread on that market (Beber & Pagano, 2013, p.345). Glosten & Milgrom (1985) drove the same conclusion, by preventing informed investors to trade on bad news the price discovery is reduced and the bid-ask spread is increased (Glosten & Milgrom, 1985, p.74).
3.4 Negative contribution of short selling

Observing the negative side of short selling it is argued that short selling increases the volatility on the stock market (Yanxiang & Yang, 2007, p.469). Another negative contribution associated with short selling is the creating of herding behavior (Bikhchandani & Sharma, 2000, p.4). The most known argue for negative contributions of short selling are the ethical, covered by the media and it is not unusual to read that short selling is associated with market abuse as Matsumoto expressed in 2009.

3.4.1 Short selling’s effect on market volatility

Whether short selling affects stock volatility has been heavily debated among regulators and scientists for several years (Yanxiang & Yang, 2007, p.469). In 1993, Figlewski & Webb found a statistically significant relationship between effects on markets volatility and short sales (Figlewski & Webb, 1993, p.776). Other previous research argue that if short selling of a stock increases, the more likely it is that the price will decline more than otherwise, especially if the short sell comes as a surprise for the market (Yanxiang & Yang, 2007, p.470). At the same time, as the authors of this thesis previously presented, other studies pointing at evidence revealing that short selling does not increase market volatility, on the contrary, short selling contributes to efficient markets and the flow of information leading to a decrease in market volatility.

Yanxiang & Yang (2007) argues in their study “Short Sales Constraints and Return Volatility: Evidence from the Chinese A and H Share Markets” that most of the previous research and studies employ the financial instrument options as a substitute for short sales. This is since other researchers failed to find relevant data covering a company’s stock in different markets, one where short selling is allowed and another where short selling is banned, in the same country and during the same time period. Yanxiang & Yang (2007, p.470) continues to reach the conclusion that it is hard to estimate how short selling affects the volatility without proper comparison measures. Therefore they compare return volatilities of listed stocks in Mainland China and Hong Kong to determine if short sales increase or decrease price volatility (Yanxiang & Yang, 2007, p.470).

In China, there are A and H shares, which are both issued by the same company, with the difference that A shares are traded on Shanghai and Shenzhen stock exchange and H share are traded on the Stock exchange of Hong Kong. Short selling is not allowed for A shares but is allowed for H shares, so the stock market of China presents a unique opportunity to compare different price volatilities. (Yanxiang & Yang, 2007, p.471-472)

Yanxiang & Yang (2007) reached the conclusion that the return volatility is bigger for H shares than A shares. The results indicate greater volatility at the market where short selling is allowed, however they stated that it is hard to determine if the results solely can blame short selling and that there might be other factors contributing to the volatility difference (Yanxiang & Yang, 2007, p.477).
3.4.2 Herding behavior

The phenomena in financial markets when actors act on others behavior rather the factual rational variables is called herding behavior (Bikhchandani & Sharma, 2000, p.4). This is often shown in financial crises where one incident can have ripple effects and rumors and others action make individuals fear and act as well. There can also be rational herding behavior based on imperfect information, reputation and compensation structures (Bikhchandani & Sharma, 2000, p.5).

Investors noticing herding behavior can by strategic movement make profit on this by going short or long on these securities. In Taiwan the most favorable method is to hold the security only for one day, showing that herding behavior of investors quickly is reflected (Chang et al., 2012, p.103). This shows that short sellers can take advantage of herding behavior.

According to Bohl et al (2014, p.268) current literature on the subject short selling, is neglecting the effect of potential short selling ban and herding behavior. Their conclusion is that all aspect considered, restrictions on short selling can lead to increased asymmetric information and furthermore to that can produce adverse herding behavior, explained as reduced heading behavior (Bohl et al., 2014, p.268). Their evidence also shows that short sellers herding in stock markets is not a prevalent sensation and are not inflating herding behavior (Bohl et al., 2014, p.262).

3.4.3 Ethics of short selling

Since the 17th century short sellers have not only made profit on others misery, short sellers also contribute and create misery through their activities (Angel & McCabe, 2009, p.239).

Common critique against short selling according to Angel & McCabe (2009) is that short selling gives incentive for market makers to engage in unethical behavior, i.e. manipulation by spreading false information. They move on by writing that another common critique against short sellers is not only that they profit from others misery but also that engage in making this happen. Another critique against short selling is that it is just being gamble and making market prices more volatile (Angel & McCabe, 2009, p.245). After presenting the common misinterpretations, they move on to answer them. Their conclusion however is that just like fire, short selling is a necessary, and sometimes dangerous tool. In four centuries it has been criticized and is still considered controversial, even doe the simple act of short selling is not unethical (Angel & McCabe, 2009, p.246).

The fact that short sellers can make their fortune on others misery and that in theory in those cases is in short seller’s interest to make that misery severe is natural. As presented previously by Angel & McCabe (2009, p.245) short sellers can be criticized for spreading false information. This explains the expression short and distort. This means that short sellers after borrowing a stock make false claims and take other available measures to make the stock price fall, before they buy it back to the lender. This is one of the actions short sellers can do that is included in the argument that short sellers manipulate markets. A statement made by U.S. senator and Member of the House Committee on Government Oversight and Reform, Ted Kaufman along with others (Matsomoto, 2009).
3.5 Contribution compilation

The articles presented in this thesis often argue for the positive contributions of short selling. Therefore the authors have created a compilation shown in table 3.1 visualizing the presented articles different conclusions regarding the main aspects of short selling presented in this thesis. In the theoretical framework the authors of this thesis presents studies covering several areas, however, in most cases these studies is used by the authors to cover a specific topic. This means that some of the study’s conclusion is omitted in the theoretical framework. To show the similarities between the studies, Table 3.1 include the omitted conclusions and the overall view on short selling. In the table (+) means the researcher argues for short selling having positive effects and (-) means the researcher argues that short selling have negative impact.

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*Table 3.1 – Articles conclusion on the contribution of short selling*
4. Empirical results

This chapter will present data illustrating the extent that short selling is used in Sweden today. After the data is presented the five interviews conducted in this thesis will be presented.

4.1 Empirical data

To create an overview of the extent short selling is used, the authors need to gather information about how widely spread short selling is in Sweden today, but also by acquiring knowledge in how it has been in the past. In this way a better understanding for the progress of short selling is achieved and it will ease the prediction to short selling role in the financial market in the future.

All short selling activities in Sweden exceeding 0.5% of the share value have to be reported to the FI, whom every day the market is open are sharing this information to the public, in some occasions transactions under 0.5% are shared to the public as well (FI B, 2012). This due to the regulations made in the European Union 2012.

The graphs below show the OMXS30 index (graph 4.1) and the amount of short selling reported and published by the FI (graph 4.2).

Graph 4.1 – OMXS30 (Source: Avanza A, 2015)

Graph 4.1 illustrates Stockholm OMX30, OMXS30, consisting of the 30 most traded stocks on the Stockholm stock exchange market. The progress for OMXS30 reflects the increase the OMXS30 have had since 2013 January. A sharp increase in the value is observed since the beginning of 2015.
Analyzing graph 4.2 the amount of reported short sells are illustrated and a pattern is shown. In Q1 2013 and Q1 2014 the short selling volume were similar and have in Q1 2015 the volume substantially increased. The reason to why only Q1 is observed is to be able to include 2015 and the statistics only reach back to 2012 when the restrictions came to power. However 2010 is excluded because the restrictions in Q1 were not yet in the legislations.

Comparing the two different graphs a pattern is observed. When markets prices increases, the amount of short selling increases as well. This will not be analyzed in this section, however this indicates a connection and shows the role of short sellers as contrarians. To create a better insight the authors contacted the FI to further investigate the statistics and received a extended amount of reported short sales they got reported but not disclosed to the public because they not surpass the limit of 0.5%. The results are presented in graph 4.3.

Graph 4.3 shows a connection with the previously presented amounts of short sales exceeding 0.5% presented by FI for the public and the increase in the OMXS30 stock prices. Furthermore the data from Q1 for 2013-2015 revealed that during the period 35 out of 1389 short sales in Sweden where made by financial actors such as hedge funds, whom were registered in Sweden.
4.2 Interviews
The authors have conducted in-depth interviews with five respondents with a close connection to short selling. Each respondent represents a different perspective of the financial markets, making this thesis more significant.

The respondents are:
Claes Hemberg - Economist, Avanza bank
Ludvig Sandhagen - Financial supervisor, FI
Reimo Juks - PhD in Finance, advisor to the Swedish Central Bank section for financial stability
Joakim Strid - Head of European surveillance, Nasdaq OMX
Anders Wennberg - Portfolio manager Zenit fund, Brummer & Partner.

Because of the geographical inconvenience the interviews was carried out over the phone. A time was booked for the in-depth interview so the respondents could choose an environment where they felt comfortable and had no interference. All respondents participated in this thesis with commitment, since they have an interest in short selling and the subject is within their field of knowledge. The authors sent out the questions in advance so the respondents could reflect and deliver thoughtful and considered responses. The response rate was 100 percent and the results of the interviews are presented in chronological order after the date of execution.

Here the authors will focus on the selected themes in the interview schedule, but also present interesting deviations. As previously mentioned the themes are derived from the research objectives. All respondents agreed with the ethical requirements presented in 2.5.1 and agreed to the intended way of execute the interviews.

Theme 1: Perception of short selling
Theme 2: Perception of regulations
Theme 3: Perception of future prospects

4.2.1 Interview 1: Claes Hemberg, economist, Avanza bank
Avanza is a Swedish online bank oriented in savings and trading. Currently, Avanza have more than 300,000 customers and over 100 billion SEK in savings, which is equivalent to approximately 2% of the Swedish savings market (Avanza B, 2015). Claes Hemberg is employed by Avanza bank. He is Avanzas front person and has over the years become a profiled saving economist in Sweden.

Theme 1: Contributions of short selling. Hemberg makes his opinion regarding short selling clear, he thinks it is a virtuous phenomenon and something that should exist on all financial markets. He wishes the extent of short selling where wider because the voice of contrarians is important. Without short sellers, the stock market consists only of optimistic investors. Hemberg continues with explaining that the contrarians, makes the market more efficient and accurate.

Hemberg is of the understanding that short selling is only a good thing. He knows that there are some skeptics towards short sellers who argue that short seller add negative rumors to the market. Hemberg says that even if this would be the case, it would only

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2 In order of appearance
counter against all the positive news on the markets. Both parts are needed. Hemberg states that the reason to why short selling is criticized is based on ignorance.

He does not think short selling is unethical but the other way around. To prohibit short selling would be unethical according to Hemberg. It is like saying media that are questioning the authorities is bad, short seller’s questions the stockholder and that is an important function on financial markets.

Even if the financial crisis is over and should belong to the past he does not think that short selling will be considered less bad in the future. People like to blame someone else he says, it is easier to blame short sellers than i.e. the poor management of a corporation whom actually makes the stock worth short sell. He then expresses his security about short sellers not “having” more information than anyone else. Information is nothing you just get, but something you earn by searching, analyzing and having knowledge according to Hemberg.

**Theme 2: Perception of Regulations**

Since FI introduced the mandatory reporting of short selling in Sweden, Hemberg thinks the transparency has increased. He finds this reporting to be good, but he also mentions that it is hard to know how much the transparency actually is used. Hemberg mentions that he is not in the position to know all the facts, but he mentions that the FI could use their resources for more important issues. Instead he wishes that the media in Sweden more continually and frequent presented this information to the public. The media in Sweden is familiar with the effects of short selling according to Hemberg. They are good at giving individuals criticizing short selling a hard time. When it comes to the individual savers the criticism against short selling will consist, and will from time to time be heard.

The fact that legislators love legislating is a good explanation to the way short selling was treated during the financial crises in his opinion. The people lacked knowledge about short selling and became terrified and thought that legislation was the solution. It is not legislations resulting in balance, it is the actual use of short selling.

**Theme 3: Perception of future prospects**

For the future of short selling and regulations, Hemberg mentions that the legislators love legislating, hence the development of legislation of short selling might increase as well.

He talks about the blame short sellers and robots got for the financial crises and does not agree with the critique, then adds that short selling probably never will get the recognition it deserves because the broad public do not understand the concept of short selling. He mentions a common misinterpretation “why should someone make profit on others misery”, and continues by criticize this as simple ignorance. Not having short selling is absurd according to Hemberg and there is another side of the short selling seldom mentioned he says. All the money it generates to the long horizon savers lending their stocks, the negative voices are actually making profit by lending their stocks. To make short selling a non-problem for the public, their ignorance must be educated, but he is skeptical to the possibility of making the broad public understand the true value of short selling. According to Hemberg, the general Swede has enough problem understanding what a mutual fund is.
4.2.2 Interview 2: Ludvig Sandhagen, Financial Supervisor, FI

Finansinspektionen (FI), is a state administrative authority in Sweden, serving under the Ministry of Finance. FI operates on the behalf of the parliament and the government and is responsible for the oversight, regulatory and licensing financial companies and financial markets. Since, 2012, FI is responsible for the supervision of short selling in Sweden and publishes the daily short sales volume (FI B, 2015).

Ludvig Sandhagen is a financial supervisor at FI since 2010. He has a Master of Science Economics and Business from Stockholm School of Economics. Previously he has worked at a bank as an equity derivatives trader and he specializes in market analysis and market risk.

**Theme 1: Contributions of short selling**

Sandhagen mentions that his and FI’s general view on short selling is that it have an important role for financial markets. He mentions that market makers by short selling enables the maintaining of financial markets liquidity. He answers that one of short selling’s contributions to the Swedish stock market is to provide advanced financial trading strategies such as arbitrage, hedging of derivative positions and statistical arbitrages. Sandhagen’s closing arguments for the contributing factors is by remarking that short selling also help preventing price bubbles of different categories.

The negative sides he mentions is that the FI observes a large amount of speculation in corporations declining (or risking to decline), nothing wrong with that he adds. That rather contributes to a correct price and more efficient market, but when it leads to abuse of power and spreading of false rumors in the market he sees a danger. This however is another question and discussion he says. Sandhagen continues by explaining that how financially developed a country is contributes to the volume of short selling. He believes that’s the reason to why Sweden is in third place in Europe in announced short sells.

Sandhagen states that one of the key aspects to the general view of short selling is the market and the financial conditions. In baisse everyone is blaming short sellers and financial robots, but in hausse almost no disapproval of short selling is received. Sandhagen mentions that short selling in Sweden have an infamous reputation, and adds that he thinks it is unfair. Most often the negative aspects rather than the positives that are discussed in public. He answers the question about if short sellers have an information advantage that they might have, but no inside information or asymmetric information in particular, but rather that short sellers are professional actors and collecting their information in such manners.

**Theme 2: Perception of Regulation**

He thinks that the legislations made in 2012 is giving licensing authorities more power to detect abuse of power in the markets. Also the legislations have contributed to give more transparency to the investors. On the other hand he mentions that he and many others in Sweden is of the understanding that these positive sides of the legislations don’t weights up for the administration costs and he suggests a ease on the regulation to limit the administration for making short sales transparent from the FI. He once again mentions that it assists the authorities tracking of market abuse, but it is on such low scale that he thinks it is an unnecessary measure.
Theme 3: Perception of future prospects
For the future he mentions that not much will change, when markets are good as he mentioned before short sellers are not critiqued. But correlating with his earlier statement regarding the relationship between developed financial markets and short sales, he thinks that other European countries that develop their financial system might see an increased short selling in their market as well.

4.2.3 Interview 3: Reimo Juks, Advisor at the Swedish Central Bank
Juks is advisor for the Swedish Central Bank, Riksbanken. Former Doctor of Philosophy (PhD), in Financial Economics at Stockholm business school (SSE) And employed by the Swedish house of finance. Swedish house of finance is a national research center for financial economics in Sweden and were funded at SSE.

Theme 1: Contributions of short selling.
According to Juks short selling is a way of providing market makers with the opportunity to make decisions based on their beliefs and needs. Short selling is complementing and providing adversity to other instruments on the financial markets. Juks says that the possibility to go short on a market is as important as going long.

Theme 2: Contributions of short selling
Juks mentions that regulations on short selling could have a harmful effect on market efficiency in financial markets, because of its contribution as both a hedging and speculation instrument. But in the reality there is other instruments and alternatives that can be used to obtain the same effect that short selling is contributing with.

Regardless of what instrument is used, Juks makes clear that in his opinion market manipulation should not be allowed. Juks define market manipulation as the ability to leave the wrong impression of your trading. If the market sees a market maker go short, that short sell should also be executed, meaning that the capital is bind up.

Juks answer regarding naked short selling is clear. If naked short selling is used for market manipulation it should not be allowed. With that expressed, he have no feeling of short selling being any issue in ethical or moral perspective.

Theme 3: Perception of future prospects
His opinion regarding legislations is that the main focus should be to prevent market manipulation because that rather decreases than increases market efficiency. For the future Juks prediction is that short selling will be used like other trading instruments. It will go as an underlying volume of the tradable assets will grow.

4.2.4 Interview 4: Joakim Strid, Head of European surveillance, NASDAQ
National Association of Securities Dealers Automated Quotations (NASDAQ) is an American stock exchange. It is the world’s second largest exchange market and is owned by NASDAQ OMX Group, also owning the Nasdaq Stockholm exchange. The respondent from NASDAQ is Joakim Strid, Head of European Surveillance.

Theme 1: Contributions of short selling
According to Strid the contributions of short selling is that it is a phenomena not pledged to Sweden but rather something that is the same in the most developed countries. The relationship to short selling should, in his view, be neutral. Short
selling contributes with symmetry and neutrality to the markets and also presents different opportunities for investors. These variables is positive contributions to the market, whether short selling in certain situations is good or bad is nothing Strid likes to remark on.

The problems that can emerge as a result if short selling is abused are problematical, but not connected to the art of short selling. NASDAQ are rigid when it comes to detect market abuse, thus it is seldom that short selling alone is subject for such allegations.

Strid is convinced that media are contributing to the perception of short selling. During crisis media reporting can contribute to fear in the public. This fear is contributing to the negative perception of short selling. Strid is not convinced that short selling volumes will increase during hausse market conditions. The most usual factor contributing to the volumes of short selling is the opportunity of making arbitrage, most often as a reaction to inefficient prices and when shares are admitted to trading on different trading venues. Strid illuminates that a perception could be that during hausse, market makers would think that there is more inefficient prices, this however is not entirely true. In reality the question, as relevant for the topic of potential short selling, is if investors are ready to think that markets in hausse will decline, more than during other conditions.

**Theme 2: Perception of regulations**

Strid is in general positive to the regulations. He thinks that the transparency is good, regarding announcements of short sales exceeding certain amounts is positive. However, the limits today can be subject for discussion, but the principle of transparency is according to Strid positive. Possible misuse of insider information is a serious risk for the industry, but short selling itself does not constitute or necessarily or even naturally relate to insider trading according to Strid. He also states that when admitting securities to be traded on the market, the emittent is giving the market the responsibility to set the price. An issuer can be concerned with falling prices of its shares but should be equally concerned if the decline was result of long holders selling their shares as if it was fuelled by short sellers. Short selling itself should not be considered unethical.

**Theme 3: Perception of future prospects**

Strid expresses skepticism against what he considers to be political tools today being used, giving the FI the ability to impose prohibitions. He states that Sweden survived the financial crisis good without such prohibitions. Otherwise Strid expresses that there is not much that will affect the future for short selling dramatically. The only thing he mentions is the lacking model that exists today, giving legislators the ability to intervene against short sales. The prohibition against naked short selling is something he thinks is wise, and Strid ads that the prohibition has not been brought to its extreme. It would not be unlikely that Sweden in the near future will have its first legal case against naked short selling.

**4.2.5 Interview 5: Anders Wennberg, Portfolio manager, Brummer & Partners**

Brummer & Partners is a European hedge fund manager. They are managing capital estimated to 125 billion SEK for their clients. Brummer & Partners has offices in six countries, with headquarter in Stockholm. Their fund Zenit was the first hedge fund in
Sweden, established in 1996. Anders Wennberg is today the portfolio manager for the Zenit fund and former analyst for the Zenit fund.

**Theme 1: Contributions of short selling**

Short selling contributes to market efficiency by allocating more accurate prices. It allows investors to make profit not only on positive information but also on negative information. For small investors short selling is good because it prevents, or reduces, the size of price bubbles according to Wennberg.

Wennberg adds that for hedge funds and in general, short selling comes with a risk of huge losses if the security speculated on increases in price. Because of this, short positions are more dangerous compared to long positions. Another downside with short selling for a hedge fund is if the management of a company gets notice of the short selling, the action of short selling can harm the relationship with those corporations. Wennberg adds that this is more common in i.e. the U.S. and less of an issue in Sweden. Swedish corporation are better at ignoring the fact that a hedge fund speculates towards their stocks he mentions.

From a societal perspective Wennberg acknowledge the problems with so called boiler rooms\(^3\) that might spread false information. He adds that this kind of issues are not connected to short selling but is something that as well can be related to long positions. As a manager of a hedge fund Wennberg use short selling. The main objective for the hedge fund is to give the customers yield. Wennberg believes that the return for investors can be higher if the fund management makes good short investments, instead of only selling on index.

Wennberg tells that one way to detect opportunities for short positions is by analyzing his own behavior and compares this to relative’s behavior. If he detects a behavior pattern he can get an idea about the future for a certain company. Investigating this idea further by analyzing performance indicator can lead him to take short positions in a company. This is usually a complement to other official information. According to Wennberg short sellers do not have an information advantage, the information is out there for everyone. He adds however, that spending 50-60 hours a week, working professional with financial markets hopefully an investor will have an advantage, but the analysis will be based entirely on public information.

**Theme 2: Perception of regulations**

In general the legislations instituted in 2012 regarding short selling is good, Wennberg says. He comprehends that naked short selling is prohibited in Sweden and if the short seller cannot find a lender of the stock, the short seller have to pass on the opportunity. He thinks that the disclosing is good, but it can be discussed however the demands for disclosure of short selling are justified, when it is not the same for long positions.

The regulations have not affected Brummer & partners much according to Wennberg, even if it makes day trading more difficult since they are obliged to have a lender. Regarding the disclosure requirements he mentions that it can be of interest to deliberately avoid to reach the 0,5% limit, if the short seller are not willing to disclose

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\(^3\) High pressure selling where brokers tries to convince investors to follow their advises
their short position. However, the ESMA regulations does not restrain Wennberg from conducting his daily work, hence he does not consider the regulations to be a problem for his work.

**Theme 3: Perception of future prospects**
The legal department of Brummer & Partner are the ones responsible for questions regarding potential future changes in legislations. Wennberg himself is not spending any time thinking about how the future will look like. He says that he will adapt to the legal conditions and that he thinks short selling will continue as it is today.
5. Analysis

This chapter will do a comprehensive analysis and link respondents' answers together with the theoretical framework for answer the three research objectives. This analysis will then serve as the base for the conclusions.

5.1 What are the main contributions of short selling?

The comprehension for short selling’s positive contributions to the financial markets are strong. Short selling is contributing to efficient markets (Chang et al., 2014, p.424). Short selling is needed to financial markets because the voice of contrarians gives an opposition against the view of positive investors, all the respondents argued for this. Hemberg argued that short selling increases the market efficiency and makes markets more accurate, and Strid argued that short sellers help the market to find itself in a more neutral position. Wennberg agrees that short selling contributes to financial markets in a positive way, as he stated that short sellers help setting right prices on the markets and by doing this, the price gives more accurate information about the securities real condition. This prevails with Brealey et al (2011, p.317) arguing that prices reflect the markets expectations for the securities in the future. The authors are convinced that short selling allows a more accurate price to manifest itself and by doing this giving investors more information. By getting this kind of information, short sellers actually are giving safety to investors, because it decreases the risk for price bubbles according to Wennberg. This is something also Sandhagen remarks on, short selling can contribute by preventing or reducing the extent of bubbles.

Juks states that the ability of going short is as important as the ability to go long for financial markets, this is because markets needs to give investors the opportunity to make decisions based on their beliefs. This is something Hemberg agrees to, he mentioned that short positions are as important as long positions, he wishes an increased amount of short selling and adds that short selling is complement for all the positive rumors and information on the markets. The authors understanding on this is that their agreement on short selling’s role in relationship to long positions and positive information is as mentioned previously that the contrarian role is of great value. Prohibitions of short selling reduces the market efficiency and slows down price discovery processes, especially in bear markets (Beber & Pagano, 2013, p.372). The authors consider this to show a relationship with the respondent’s statements regarding short selling in relationship market efficiency, also Brealey et al (2011) and Chang et al (2014) argues for this. The authors find Beber & Pagano’s discovery of short selling in bear markets in particular to be interesting. Beber & Pagano (2011) suggests that short sellers should not be restricted during crisis but also that short sellers in baisse market are not harming by as Ted Kaufman stated, adding to the fire, but rather helping setting an accurate price.

None of the respondents in this thesis considers short sellers to have any given advantage against other financial actors when it comes to information. Wennberg mentioned the information being available for everyone to find, but added that short sellers might have more information than others. However this is a result of knowledge, time and experience. Sandhagen and Hemberg support this view. The theoretical framework, i.e. Bris et al (2007) argues that short sellers are sophisticated
knowledge seekers and because of this conquer more information than a private investor (Bris et al., 2007, p.1029). This argumentation is strengthening by the fact that short selling increases before negative public announcements (Liu et al., 2012, p.201).

However financial markets have some difficulties with insider information and other illegal activities, as Strid mentioned before, he also added that this is not in any way connected to short selling but rather a general issue with the financial supervisor’s daily monitors and attempts to prevent. The authors agree with the respondent’s conclusions, there can always be some individuals trying to bend the law. This however is in the author’s opinion not a short selling problem but rather a problem for financial markets in general. The authors conviction is that in the most cases when short positions are taken based on information advantages (instead for hedging or for arbitrage) these actions will be based like the case of Terranola explained by Srinivasan (2013) when the investors simply had acquired more information compared to the rest of the market. In the authors opinion this is a good example of when short selling contributes to market efficiency by setting accurate prices.

Karpoff & Xiaoxia (2010) found evidence that abnormally big short positions were taken before information where officially released for the public. This raises an important ethical question in the author’s opinion. Acting on insider information is illegal in most countries and doing this is in no way justified. Karpoff & Xiaoxias (2010) results is however more an exception to the information previously presented and as the authors have stated before the authors belief is that short positions can be held by almost anyone and the main focus should be to prevent illegal activities rather than a financial actions that if misused, can be unethical. The authors view regarding this is shared by Hemberg who states that short selling is the opposite of unethical, this is also supported by Sandhagen. Sandhagen added a negative contribution of short selling by expressing an issue to be that individual’s speculation in securities having incentives of that particular shares price swinging in their favor. The authors think that this can be a great danger and understand i.e. the fear some individuals have for short selling because of this. The authors have mentioned the herding behavior earlier in this thesis and that should generate an understanding for U.S. senator Ted Kaufman and his statement of short selling being fuel on the fire. During crises and price declines short sellers are contributing to destabilization according to Shkilko et al (2012) and if this is the case a destabilization of prices during crisis would probably add to the herding behavior and much as senator Kaufman expressed being fuel on the fire.

Hemberg is however of another view, he says that critiques against short selling is often based on ignorance and Sandhagen expressed that during hausse there is almost no disapproval of short selling but during baisse everyone is blaming short selling. The authors understand the theory of herding behavior and the authors acknowledge the dangers associated with it. However, the authors think Sandhagen makes a good point regarding short selling only getting blame during baisse. Of course this raises the question of short selling and the contribution when everything is taken to account. The author’s conviction is that herding behavior can make prices both rise and decline based on irrational action and in abnormal levels. This is one of many dangers in financial markets, but blaming short selling to harm the financial markets is according to this thesis empirical and factual wrong. The authors have stated that short sellers
often have much information and knowledge, this means that their voice is important, often as contrarians. As Boehmer & Wu (2013) mention, short sellers are exploiting opportunities and are contributing during biasse as Beber & Pagano (2013) explained.

Market abuse is a threat, Shkilko et al (2012) critique can be added on by the ones presented by Angel & McCabe (2009). The expression short and distort being infamous. The authors of this thesis have the opinion that in reality this is not different from buying a share and then spread positive false information with the ambition of ending up with a price increase. In the end the authors believe it comes down to a simple realization. In general the public have the belief that if someone succeeds at the cost of someone else, this is considered unethical. Lacking knowledge then adds to difficulty of understanding the contributions of short selling simply leaving it to be an unethical method. Hemberg mentions that the broad public never will gain understanding for short selling, the authors however would like to agree with Strid that media is contributing to the perception of short selling and just like Sandhagen mentioned this is not heavily discussed during hausse. Sweden is according to the authors at the moment is hausse which is shown in diagram 4.1. When the inevitable biasse comes, the authors will most probably see an increased interest for short selling in the media and from the legislators and this time the authors hope the legislators have learned from the past and not punishes the contrarians that only add to the market efficiency and the fair prices.

The respondents agree that short selling positively contributes to efficient markets and information dissemination. These are the factors that decrease market volatility, and the respondent’s answers indicated that they believe that short selling contributes to lower market volatility. But how does that fit with the findings by Yanxiang & Yang (2007). Their study indicates an increase in market volatility where short selling is allowed (Yanxiang & Yang, 2007, p.477). Therefore, it is important to emphasize that Yanxiang & Yang (2007) underline that their results not solely can blame short selling and that there might be other factors contributing to the volatility difference. Since the authors of this thesis found little evidence in the literature indicating that short selling is harmful for the market volatility, one interpretation is that the work by Yanxiang & Yang (2007) actually was interfered by other factors. And since the research in this area (i.e. Boehmer et al (2013), Bris et al (2007) and Chang et al (2014)) agrees that short selling is positively contributing to efficient markets and therefore a lower volatility, the authors believe that the respondents have supported the positive view on short selling’s contribution to the Swedish stock market.

5.2 What were the effects of the EU regulations in 2012?

Examining the regulations of short selling, the authors found that the respondents had little negative opinions and input regarding regulations. This is surprising since the literature so massive and united critiques all kinds of regulation against short selling. According to Bernal et al (2013, p.244-256) all regulation against short selling is hurting the market efficiency. This was only mentioned briefly by Juks but not mentioned once by the other respondents. Bans and constraints against short selling are harmful for the liquidity on the financial markets (Beber & Pagano, 2013, p.379) and constraining short selling will reduce the price and information efficiency (Diamond & Verrecchia, 1987, p.292). One aim ESMA had when introducing the ban
on naked short selling was to reduce the risk associated with short selling. Such restraints also have its downfalls, i.e. increased market volatility and bid-ask spread (Bernal et al., 2013, p.253). But to address the fail to deliver problematic associated with naked short selling, Bernal et al (2013) supports ESMA aim, since they state that regulation against naked short selling do not affect the trading volumes is the least damaging to market efficiency (Bernal et al., 2013, p.253). The authors can see traces of this reasoning in the answers from the portfolio manager Wennberg who states the ban have not affected his line of work, even though it makes day trading more difficult.

The respondents instead had a common positive attitude toward the regulation, primarily the claimed increase in transparency. All the respondents agreed upon the “fact” that transparency to investors has increased since the introduction of the mandatory reporting of short selling. Hemberg thinks the transparency has increased, but he has reservations about the use of this transparency. This view is shared by Sandhagen who raises doubts that this gain in transparency do not weighs up the administration costs it brings. ESMAs aim with the mandatory disclosure at certain levels was in fact to increase the transparency (ESMA, 2015). According to the respondents this transparency have disadvantages. One factor that emerged during the interviews was the privacy concerns. Wennberg states that it can be discussed if the demands for disclosure are justified and an obvious risk with the demands are that short sellers deliberately avoid reaching the 0.5% limit, if the short seller is not willing to disclose their short position. Bernal et al (2013, p.253) support this argumentation, which suggest that regulation with disclosure requirements decreases trading volumes. Sandhagen expresses that a regulatory ease can be needed, even if the legislation today help authorities to track market abuse, it is on such a low scale that the regulation appears a bit unnecessary. Hemberg agrees with Sandhagen on this matter and thinks that FI could use the resources better. He highlights that if the transparency of the EU regulation will have any impact, the information must reach the public and he would like to see better media coverage.

In all fairness, not only Juks is skeptical to the regulations. The authors also detected some criticism towards heavily regulations from Hemberg who points at the fact that legislator’s jobs are to legislate. Unfortunately it sometimes goes to the extreme and regulation is not always the right answer. According to Juurikkala (2012, p.311) the ongoing political pressure that financial legislators are exposed to can explain this and that the EU regulation framework is the product of the politicization of regulation. The authors also detected a united aversion against insider information from the respondents. This aversion can explain why they all have a general positive view on regulations as a whole, just not towards short selling. The strongest voice against market manipulation was Juks. He made it very clear that market manipulation should not be allowed. At the same time he remarks that market manipulation is not only associated with short selling since it can be used in various ways. But if short selling is used to manipulate the market, Juks thinks it should be banned. Strid stresses that misuse of financial instrument poses a serious risk for the industry, hence it should be regulated. But Strid also remarks that short selling itself do not relate to insider trading or other market manipulations. Studies have also investigated to find out if short sellers have any insider information, Henry & Koski (2010) were not able to find support for their hypothesis that short sellers have insider information when they
investigated in the volumes of short positions during SEO. In the authors opinion this strengthens the previously statements made regarding short sellers not having any unethical advantage over other financial actors. The authors, like Bris et al (2007) believe that short sellers often have much information acquired.

5.3 How will short selling be in the future?

After the authors have compiled and transcribed the interviews the authors conducted, a clear consensus of perceptions of short selling’s future were found. No one of the respondent predicted any radical changes of short selling and its role in the future. Their answers indicate that this is not a present interest for this. Hence this topic is probably too hard to estimate for the future. Wennberg expressed that he have not spent any time thinking about how short selling might be in the future, if there is any legislations in the future he will adapt and to that day he will continue as usual. Juks stated that an important issue for the future will be to prevent manipulation and Strid added that the legislations still have not been drawn to their full extent.

The public’s negative view of short selling will probably not change according to Hemberg because a general lack of knowledge when it comes to the financial markets. The authors find it alarming that the interest for this issue is absent. The authors understand that financial actors adapt after legislations but at the same time the authors see a danger if the persons having most knowledge regarding this issue is silent and the legislators not always with an established understanding for the issue taking decisions that can be based on emotional aspect rather than the fact presented e.g. in this thesis. Speculating in the future might not suit a financial researcher and i.e. the respondents in this thesis might not reflected on short selling future simply because there is nothing to take a stand against today, and if there is in the future they might react.

Sandhagens previously mentioned statement regarding the view of short selling during hausse and baisse is good in the author’s opinion. At the moment there is no focus on short selling but if the authors in the future are exposed against a financial crises or if the market only begin to baisse the authors might find ourselves in a new climate where voices have to be raised to the support of short selling.

5.4 General analysis

A common comment among the respondents of this thesis has been regarding the legislations. They are in general positive to the disclosures but something the authors have reacted on is the question raised by many of the respondent regarding the time and resources that it takes the FI to preserve and present short selling statistics to the public as a demand from ESMA since 2012. Hemberg for instance expressed that the disclosure requirements is good, but he have no clear understanding for how much it actually is used and raises the question about if the FI could to something better with their resources. Also Sandhagen whom is an employee at FI expresses that the positive side of the legislation not compensate for the administration cost and he suggest that an ease of the disclosure requirement would make their work easier. Strid expresses that he is positive to the legislations in general but he is critical to the fact that the FI in the case of Sweden have the ability to intervene with short selling and Wennberg expressed that it can be of interest for him as portfolio manager to knowingly avoid the limits for disclosure.
This was nothing the authors of this thesis had reflected on before the interviews but now it seems clear that there is room for improvement when it comes to the legislations. At the moment the legislations could improve transparency on the Swedish stock market if the information is handled correctly. Unfortunately, it seems like the cost of this transparency is higher than the benefits. The disclosure policy could be considered a paper tiger, taking resources from the FI. During the interviews the respondents have mentioned that the resources the FI spend on disclosure could instead be used i.e. to prevent market abuse. Misallocation of resources were also detected by Boehmer et al (2013), during the prohibition of short selling in the US. The ones who could short sale did so more than ever showing a reduced significance of prohibitions.
6. Conclusions

In this chapter the authors conclusions based on previous chapters will be presented. Furthermore the contributions of this thesis will be presented and the chapter will present suggestions for future research. Finally the chapter will present the social aspects of short selling.

Financial markets are dependent on investors behavior and actions, assumptions can become reality and a few actors can by their actions induce herding behavior and radically change the market conditions. In such environment it is important to let the voice of contrarians to be heard and create a balance on the stock market. Short sales by its nature can contribute with this contrarian role and create stability on the stock markets. The research question of this thesis has been; How does short selling affect the Swedish stock market? After the qualitative research method used in this thesis, the author’s conclusion is that short sales strengthen the Swedish financial market in the long run by increasing market efficiency, liquidity and stability. Based on prior studies and the nature of short positions, the author’s conclusion is that the contribution of short selling is not bound to certain countries. The respondents also emphasized this during the interviews. The authors’ understanding is that the observed and presented facts in this thesis could be transferred to most countries. Hence the increased damage occurring during the financial crises as a result of the prohibition of short selling should be avoided in the future by countries if they were to face these challenges again. Short selling before crises is actually decreasing the probability that crises will appear by proposing information to the markets and also by acting as an equipoise against all positive information.

For short selling to be effective the legislators must accept the consensus existing among the scholars regarding short selling and its positive contributions. Short selling is not a problem more than anything else misused. Not acknowledging this can be harmful for the markets, instead focus of legislations should be on preventing the real issues financial markets face daily.

The authors have concluded that the criticism on short selling often is based on irrational grounds, lacking knowledge or hesitancy towards the unknown. In reality, short selling is used by many and for different purposes that it is impossible to accuse short sales in general. However legislations in financial markets by their core are good because they are declared to impose safety. This thesis has shown that legislations can be good and should be a part of financial markets. Opposing short selling is however according to the authors of this thesis not the solution. The issue surrounding financial markets can i.e. be market abuse, individual’s greed and opportunists doing everything in their power to make a profit. This should be condemned, rejected and opposed by everyone on the financial markets.

Medias reporting is important for the reputation of short selling, during time when investors lose money in baisse it is easy to accuse those whom are making money. This is normal human behavior, however this is irrational and unfair. Short sellers can only make deals if someone is willing to make deals with them and if the authorities prevent market manipulations both by investors taking short and long positions this can be avoided. The alternative uptick rule however is something the authors of this thesis believe could be an interesting option. Short sellers actions could lead to
herding behavior and result in prices declining even below the price the short sellers would imagine be the correct price. During this kind of declines the author’s recommendation for the authorities is to have the ability to prevent huge price declines on securities, just like the alternative uptick rule is offering with a circuit breaker in the US. Furthermore the authors recommend that the FI should investigate in how much the disclosure actually is contributing to the market efficiency in Sweden. This since the investors easily can avoid the disclosure requirements by avoiding the limit for disclosure. In the author’s opinion the disclosure policy also cost more than it benefits and results in misallocating resources for the FI. If this is the case, this should be further investigated by the ESMA since they are responsible for the regulations in the EU.

For the future the authors have ambiguous conclusions. During the research process the authors was not able to find sufficient evidence to create a conclusion about the future. Neither the respondents nor the previous research show any predictions for the future of short selling sufficient enough for the authors of this thesis to base any conclusions on. However the collected data presented in graph 4.1 creates an overview generating an understanding for how the amount of short selling have increased for the past three years as the same time as the OMXS30 have increased. Together with the presented recommendations made by this thesis for the future, the data in graph 4.1 gives the authors an indication that the short selling levels to some extent is connected with the stock market index. If the levels are to increase it is important that the voice of contrarians will be herd in the future.

6.1 Contribution of this thesis

The authors of this thesis main purpose have been to examine how short selling affects the Swedish stock market by creating an understanding of the different existing opinions. The authors believe that this is achieved by gathering the positive and negative contributions of short selling. The authors wish that short selling in the future is free from market abuse and the knowledge of the positive effect of short selling will increase. This thesis should culminate in providing legislators with a foundation for decision making in the future and should help to raise awareness among decision makers so future legislation is aimed against market abuse instead of short selling.

The authors processed a vast amount of studies to cover not only the positive sides of short selling, but also the negative contributions. Throughout this thesis the authors have by arguing reducitio ad absurdum reached the conclusion that the few negative contributions of short selling indicated that short selling is positive for financial markets. Hence this leads the authors to contribute to the research by creating a clarifications regarding short selling. Prior studies are often based on quantitative methods to find evidence and test different hypothesis to find specific contributions of short selling. By gathering and presenting these different studies in a qualitative thesis the authors have developed an understanding covering positive and negative contributions of short selling. The qualitative method have enabled the authors of this thesis to recommend suggestion for future research by actually investigate in how short selling is contributing and how the market conditions for short selling can be improved to increase the market efficiency.
Something the authors realized throughout conversations with the respondents is that the legislations today can be inefficient in comparison to the real purpose they have. Furthermore this thesis shows that short selling is a good phenomenon in financial markets contributing to make the markets more efficient, and the vast majority actually having knowledge in the subject shares this view. The realization in this thesis have been that short selling’s negative reputation mostly is based in irrational and emotional perceptions about short selling being unethical simply because short sellers seems to make profit on others misery when they in reality only acting as contrarians and only being able to make their profit if someone is willing to trade with them.

6.2 Suggestions to further research

For the future it would be interesting to compare the view of short selling in different countries to see if there is any cultural difference on this subject. To avoid making such investigation vague, the focus should be in the authority’s way of responding against short selling. A vigorous part of this thesis has been to look at the effects of legislations in a legal perspective. The authors of this thesis have a financial perspective and it would be more interesting if a law researcher investigated in this subject and made an effort in showing how a legal change in the legislations should be like, and present in with way this would be favorable for the financial markets.

One issue that this thesis has presented is that the disclosure requirements enforced by the ESMA in Europe could be misallocated resources. Future studies can investigate in the issue presented in this thesis regarding misallocation of resources. By investigating in the total cost for the authorities to maintain these disclosure requirements and compare this to the use of the transparency. Future researches can thereby draw conclusions about if these requirements are necessary, or if the transparency comes at a cost higher than the generated results for the authorities.

Furthermore a more rigorous study of naked short selling would be interesting to conduct. Normal short selling and its positive and negative contributions is covered in a much more wide perspective compared to naked short selling and throughout this thesis the authors have come to the consensus that naked short selling is even more criticized than short selling. Future researchers can make a quantitative research and see how naked short selling is correlated to stock price and their behavior, i.e. liquidity on markets, volatility and the negative contributions that naked short selling might include.

If the subject of finance is considered more interesting for future researchers the authors would recommend future researchers to do a quantitative study for the short selling in Sweden and try to find patterns between the results of this thesis and how this reflects the development of short selling for the past years.

The author’s final suggestion for future studies is to investigate how the future of short selling will be. Some of the respondents the authors interviewed have mentioned that their view of the future for short selling is that it will be uniform. The authors are not convinced about this and future studies can investigate how financial behavior
shifts over time and how policy makers use experiences from the past, i.e. crisis, to avoid repeating mistakes. This kind of study would be more effective if made by a qualitative method and is conducted advantageously after, one of the other suggested studies are conducted. This will enable the researchers to investigate how short selling will be in the future based on changes regarding short selling.

6.3 Social aspects

The paradox that short selling creates for legislators in Sweden is difficult to manage. The legislators and the FI have the assignment to prevent market abuse and to secure a healthy market environment. This thesis has shown that short selling contributes positively to this environment, however short selling is still subject for criticism and legislations that i.e. is not requested for long positions.

The authors of this thesis are convinced that disclosure is good and that transparency between corporations and consumers is of vital importance. The financial markets should not be excluded, and this is the first paradox. Investors should be allowed privacy, a compromise the author’s sees is to make short sales public, but not show the name of the investor taking the short position. The respondents have in this thesis all made important comments about short selling being a phenomena used by to many different investors and for different purposes that it is impossible to point fingers and judge short sellers as one group. To use collective punishment, even during crisis, is not the solution. The conclusion of this thesis presents that short selling is contributing positively to financial markets, and is only harmful if used for a destructive purpose, and then the investor should be to blame and face legislator’s legal proceedings. Hemberg mentioned during the interview that prohibiting short selling is an act against democracy, the result of this thesis does not possess such allegations, however this thesis clearly shows that prohibiting short selling is the real act that should be condemned as “fuel on the fire”.

The FI in Sweden and corresponding authorities in the EU, have an important social responsibility to secure market conditions, not injecting harm to it. This is the second paradox because the ESMA regulations present’s short positions to be something more controversial compared to long positions. The conclusion of this thesis have on the contrary presented that short selling should not be considered more controversial than long positions. Based on this conclusion the suggestion for the legislators to improve social responsibility is to continue monitoring the markets and act against market abuse without restraining short selling.
Bibliography


Appendix 1 – Interview guide

Name:
Profession:
Company:

In your opinion, what is the function of short selling?

What is, in your opinion, the contribution of short selling?

In general, what is your opinion of short selling?

Would restrictions and/or a prohibition of short selling restrain or make financial markets more efficient?

What are the main factors contributing to market makers trading with short selling?

Is there any kind of regulations on short selling you think actually would contribute to market efficiently?

What is your view of naked short selling, and your opinion about it being prohibited in a large amount of European countries?

What is your view on short selling due to an ethical perspective?

There are different understandings in what short selling actually is, and whether or not it’s a good thing, why do you think this mismatch exists?

What is your opinion about Regulation (EU) No 236/2012 on short selling and certain aspects of credit default swaps, i.e. the demand for transparency and report to authorities.

What do you think about the role of short selling in the future i.e. will it be used more often/seldom, will it become more/less criticized and do you think more/less legislation is to expect?

Do you want to add something I forgot to ask you think is relevant on the topic?