Wageningen University – Department of Social Science

Chair Group Management Studies

Università Cattolica del Sacro Cuore, Cremona

MSc Thesis

An Evaluation of Short Selling Methods

– Market Effects and Implications for Regulators –

August 2010

Felice Tangari

Wageningen University – Department of Social Science

Chair Group Management Studies

Università Cattolica del Sacro Cuore, Cremona

MSc Thesis

An Evaluation of Short Selling Methods
– Market Effects and Implications for Regulators –

August 2010

Student:	Felice Tangari Reg. No. 811103 823010
Supervisors:	Dr. Mr. H. J. Bremmers (Wageningen University) Prof. A. Marchesi (Università Cattolica del Sacro Cuore, Cremona) Dr. J. Bijman (Wageningen University)
MSc Programme: Specialization:	Management, Economics and Consumer Studies (MME) Management Studies (A3)
Thesis:	Management Studies MST-80436 36 ECTS
Research:	November 2009 – August 2010
Keywords:	Short selling, Financial Authority, Financial Market Regulation

Preface

The thesis project "*Evaluation of Short Selling Methods and Implications for Regulators*" concludes my MSc course in Management, Economics and Consumer Studies and my Laurea Specialistica in Economia del Sistema Agroalimentare. It represents the final achievement in terms of academic research, methodology and contents of my Double Degree program shared in Italy and the Netherlands.

During the two years Master period in Wageningen University and three years of Laurea Specialistica in Università Cattolica, my interest in issues and problems belonging to business management has been continuously rising until focusing on the financial management. In the huge universe that opened to my thirst of knowledge during the course Corporate Financial Management, hedging procedures and risk management fueled my curiosity herded then by the advices of my supervisor on the topic I have been dealing with in the last months: short selling.

In the broader area of social science the challenge for an agricultural back-grounded student has been to analyze deeply aspects related with investors psychology turning into prices and values given to securities and to understand dynamics related with the functioning of financial markets that has always been lighting the fire of my mind.

Acknowledgements

As for having given me the chance to investigate such a challenging and stimulating topic, I cannot avoid thanking my supervisors, Dhr. Mr. H. J. Bremmers from *Wageningen University* and Prof. A. Marchesi from *Università Cattolica del Sacro Cuore, Cremona*. Their support has been constant and sharp, especially in coping with the unavoidable logistic difficulties encountered on the path, and their feedbacks never offsite. I also thank Dhr. J. Bijman for his methodological hints.

I thank my precious Lisy for her endless love and for having suffered and shared with me all the problems I encountered during this thesis. I thank my father Enzo, my mother Ada, my sisters Adriana and Francesca for their unlimited support and the dear people waiting for me at home: my grandpa Vito, Mr. Raffaele, Mrs. Mena, Mrs. Katy and Mr. Lele).

Moreover, my thanks go also to Mr. Fivecee van Daijkgraaf and siblings, for their essential assistance and to F. C. Internazionale for the ***triple*** help. Concluding, I would also like to mention Mr. Kid, Ms. Mi, Ms. Chery, Ms. Pica and Mr. Tolo.

Felice Tangari

Per avermi dato la possibilità di investigare un argomento così stimolante e impegnativo, non posso evitare di ringraziare i miei supervisori, Dhr. Mr. H. J. Bremmers della Wageningen University e il Prof. A. Marchesi dell'Università Cattolica del Sacro Cuore, Cremona. Il loro supporto è stato costante e acuto, specialmente nel superare le inevitabili difficoltà logistiche incontrate nel corso della ricerca, e i loro feedback mai fuori luogo. Ringrazio inoltre il Dhr. J. Bijman per i suoi consigli metodologici.

Ringrazio la mia preziosa Lisy per il suo amore infinito e per aver sofferto e condiviso con me tutti i problemi che ho incontrato durante questo lavoro di ricerca. Ringrazio mio padre Enzo, mia madre Ada, le mie sorelle Adriana e Francesca per il loro *supporto illimitato e tutti i cari che mi aspettano a casa: mio nonno Vito, Mr. Raffaele, Mrs. Mena, Mrs. Katy e Mr. Lele.*

Inoltre, i miei ringraziamenti vanno anche al Sig. Fivecee van Dijkgraaf e suoi fratelli e sorelle per l'assistenza essenziale e a F. C. Internazionale per il ***triplo*** *aiuto. In conclusione vorrei anche citare i sigg. Kid, Mi, Chery, Pica e Tolo.*

Felice Tangari

Abstract

Purpose
To qualitatively analyze short selling methods, financial instruments deployed to place short sales, short selling risk-market effects and the current financial authority organizational level, and to design accordingly organizational suggestions to help authorities improve the regulatory activity.

Design/Methodology/Approach
A literature study addressed general information on short selling, technical-practical aspects, the relation *short selling-efficient market theory* and *short selling-financial analyses*, the short selling risk from the market perspective and the ethical debate on short selling. Subsequently, reviewing regulatory documents and interviewing experts added insights to the theoretical part. Then, the gathered information produced general suggestions for financial authorities and insights on potential obstacles to improvements.

Findings
A distinction between short selling *transaction* and *strategy*, how short selling fit with the concept of market efficiency, *hybrid* transactions nor classifiable as regular neither as naked short selling, an example of *rules bypassing strategy*, the authority's need for a *research area dedicated* to short selling, for a clear classification and categorization of rules, and for an organization *controlling over* the single markets have been the main findings.

Research Limitations/Implications
The shortage of financial experts willing to give their contribution affected the *generalization* of results, even though the information collected have been more than expected. The present study provides a valuable base for further research regarding the regulatory activity on short selling.

Originality/Value
Notably from the regulatory activity perspective, the study identified *new concepts* previously not clearly classified, *new forms* of short selling considering the last regulatory requirements and an example of rules-outflanking strategy.

Key words: Short Selling, Financial Authority, Financial Market Regulation.

Executive Summary

Short selling consists in a sale of financial securities that are not owned by the (short) seller. It is a downward investment, meaning that the profit comes along with a loss in value by the sold security. Such loss in value is represented by a drop in the security market price.

Investors place short sales when they perceive that the capability of a company to produce future profits (i.e. the *company value*) has reduced, and accordingly the market price of the belonging to securities will drop. In that case, the short seller, who agreed with the buyer to postpone the delivery of the security, will have the chance to buy the security later from the market at a lower price, pocketing the difference with what was already paid by the buyer.

This simple sale concept has been causing trouble to companies, because such behavior can influence the security-holders' perception and force them to sell. When security-holders sell, rising funds from investors becomes difficult for a company, which can enter a price-dropping vortex usually ended by the intervention of financial authorities interrupting the negotiations.

As the price reflects the market perception, in the past the public opinion accused short sellers of introducing rumors in the market to purposely drive down the price of the securities they had short sold. The impossibility of rapidly controlling the veracity of information and the slowness in communication flow were in fact making that possible. Nowadays, fast communication channels, internet, and the more strict requirements companies have to comply, make checking information much easier. Therefore, new methods, exploiting short selling complexity and the many financial tools on the market, replaced illegal behaviors and became the main challenge financial authorities have to cope with, especially when such methods aim at bypassing the set of rules.

This research analyzes the different techniques based on, or involving short selling, the risk and the effects of short selling on the market, and the current organizational level in the regulatory activity to define concepts related with short selling. Such concepts are then used to draw organizational suggestions aiming at helping financial authorities improve short selling regulation.

The central questions driving the research are two: ***GRQi***) *What are the different methods and the technical-practical implications of short selling, the risk-market effects, and the current organization of short selling regulatory activity?* ***GRQii***) *How can regulators improve their regulatory activity regarding short selling, taken account of the findings in* ***GRQi****?* These two general questions produced six specific research questions (*SRQ's*), which to answer in order to achieve the research objective.

The study has been conducted by means of a literature review and an empirical data gathering phase. During the literature review, the technical information showed the lack of a *record of occurrences* comprising the different methods of short selling, due to the lack of a clear definition of the short selling concept. Such concept was not taking account of the last investors' habits: nowadays to place their investment, investors use

assorted *portfolios* to reduce the overall risk; such portfolios *combine short and long positions*. If the value of short positions exceeds the value of the long ones, the portfolio becomes a *short strategy*. Within a short strategy there can be many different short positions that can be named *short selling transactions*. Accordingly a dilemma arose: *do short selling operations involve only one transaction (in which the seller takes a short position), or can stock portfolios (comprising at the same time different strategies for different securities and resulting in a short gross balance), also be considered broader forms of short selling?*

The main issue related to short selling is that together with problems – like the abovementioned speculation affecting the companies capabilities to raise funds from the market – it brings also many advantages. In fact, market prices develop from the balance between the amount of sellers and the amount of buyers. The will of an investor to be a “seller” or a “buyer” lies in the above cited perception of the company value, and it is based on any type of information disclosed about the company. Hence, when an investor *short sells* and consequently a security holder *sells*, moving the balance *sellers-buyers*, they both affect the price by incorporating in it the information regarding their perception, which is a notable positive effect.

By contrast, short selling has been always perceived as a form of market inefficiency both because short sellers were placing short sales when companies were overvalued, and due to the countersense of a *profit* generated from a *loss* in value. In fact, short sellers rather *exploits* market inefficiencies. The point became that the market can possibly be not as efficient as it is assumed. Hence, by analyzing the correlation *short selling-efficient capital market theory* (ECM), and by studying the relation between short selling and financial analyses – the fundamental analysis and the technical analysis – it has been possible to design the current scenario, and to find the right positioning both for financial analyses and for short selling with respect to the different levels of efficiency in the ECM (Figure 3, p. 43): short selling can exist both in condition of inefficiency, and also in the two weakest forms of efficiency (*weak, semi-strong*), because in those conditions there can be information that are not incorporated in the price yet.

The analysis of short selling risk and its effects on the market produced an initial identification of two types of risk. The *economic-financial risk* lies in the possibility that the perception by the short seller results different from the perception by the rest of the market and, hence, the security gains value instead of depreciating. Such a risk causes a loss for the short sellers and a measure of it can be found in the *short interest ratio*: the ratio between the percentage of security short sold on the total outstanding, and the average coverage period (*coverage* is the closure of the short position, by buying the securities). The *contract-failure* risk instead is a sort of personal risk. It is the risk that the security delivery fails. In that case, the risk is that the short seller defaults and takes with him such negative reputation in the future financial operations.

To end the literature study on short selling, its ethical aspects are analyzed. The need for such analysis arose as in the ethical debate many economical issues were found. The most important ones concern the market *liquidity*, the market *volatility* and the possibility that short selling causes *emotional exaggerations* able to increase the eventual price drop. Such aspects have been subsequently added of insights in the empirical phase.

The empirical study conceives two main phases. The first is the analysis of documents regarding the regulatory activity and the regulatory organizational scenario. The main findings have been the lack of *centralization* (each country/market has its own authority), the lack of *specialization* (e.g. a dedicated research area for short selling), the use of *empirical investigation* (mainly following episodes of market abuse) and *rules* not really clear and *categorized* (which is anachronistic in a current situation with everyone having access to trading).

The second empirical phase is conducted by means of semi-structured interviews. This tool allowed to build an interaction with the interviewee and hence to ask more confidential information, as short selling is used in risk management and can be part of confidential company strategies. The type of information searched is *qualitative* and, based on the scarcity of indications verified during the literature study, the topics which to ask about are: *market efficiency*, short selling *methods* (especially rules-bypassing strategies), and the *regulatory activity*. Due to the extreme difficulty in understanding the main facets of short selling, the subjects to interview have been chosen in *financial experts*, belonging to *governments*, *financial authorities*, *banks* and *hedge funds*. In the end, only three interviews are performed and to overcome such a shortage of people willing to give their contribution in the research, an *interview improving iterative process* has been applied. Such process consists in deriving new concepts in each interview step and to build on such concepts a new set of more specific questions to forward to the next expert. In this way the *in-depth* feature of the semi-structured interviews is taken to extremely high levels.

In order to keep this summary as short and effective as possible, the results of the interviews are omitted. The main insights from the experts are hence redirected under each specific research question providing the main conclusions of this research. Thereby, based on the conclusions also the general suggestions for financial authorities are presented.

SRQa: What different ways of selling short do appear in the financial literature?
There is only **one type of short selling *transaction*** (single short position), consisting in just selling something that is not owned. On the contrary, there are **infinite ways of building up short selling *strategies*** (broader compounding of financial instruments resulting in a gross short position), as infinite are the ways to combine the investment tools currently on the market, which can be used to build an investment portfolio.

SRQb: What are the risks and the effects on financial markets, associated with short selling?
Three different forms of risks have been discerned. The *financial risk* is the loss of money deriving from a wrong investment (i.e. the price does not drop). It has a very low influence on the market because of two reasons: 1) financial authorities have the chance to interrupt the negotiations and limit the losses; 2) "*professional short seller always know where to find securities to cover the short positions*". The *individual risk* is the risk related to contract failures, for which investors can default. Such reputation can affect future investments and it can also turn into a *systemic* form of risk affecting

also other market participants. Such risk has also a low influence on the market because when it turns systemic the “close-out” requirement (Appendix 4) forces the broker to cover the delivery failure. The *market risk* is strictly related to illegal behaviors (*manipulative short selling* trying to affect irregularly the price). It has a high influence on the market but it does not depend on short selling as a financial practice, but rather on investors’ correctness.

SRQc: How is the short selling regulatory activity organized?
Regulatory organizations have independently been set in each country/market, which constitutes a *lack of centralization* that can affect the decision making process and the number and clarity of rules to comply worldwide. Such authorities are not focused on short selling but rather on the broader area of market abuse, which is a *lack of specialization*, desirable for such a complex topic. There are two check points: the first is displaced by brokers, when they ask investors for complying to *strict requirements*; the second is displaced by the authority by means of *empirical investigations*. The intervention by authorities is occasional and for dangerous situations potentially affecting minor investors, and also updating rules is occasional and based on new occurrences discovery, which represent a lack of a planned and organized activity.

SRQd: Are there ways of selling short to move around regulations?
There are *two* different ways to bypass rules: short selling *substitution* and short selling *accompaniment*. The former consists in a combinations of financial tools that, *without involving short selling transactions*, results in a short final position, non-detectable by the authority. The accompaniment is instead a combination of *financial tools <u>and</u> short selling transaction(s)*, able to disguise the resulting short position. Unfortunately, it is not possible to give a comprehensive record of occurrences of bypassing strategies, because building a short portfolio can be done in *infinite ways* and it depends only on *investors’ creativity*.

SRQe: What actions can regulators take in order to improve the regulatory activity?
The main improving opportunities for the regulatory activity are: *building a specific research area* for short selling that takes account of its extreme dangerousness in case of uses related to market abuses; providing the market with a *categorization* of cases easily consultable, and setting *periodical updates* both for rules and for cases; setting a *single financial body* controlling over the single markets, in order to have uniformity of rules, especially because nowadays investors can easily trade everywhere; striving for *transparency*, for instance, by forcing brokers and investors to communicate their *net short positions* from where the authority will then disclose the *gross positions* as information to the market.

SRQf: What does it prevent regulators to take the actions named in SRQe and how can discerned obstacles be overtaken?
To build a specific research area for short selling has encountered obstacles due to the lack of deep studies on the technique whose the facets are hence difficult and mostly unknown. Such obstacle can be overtaken thanks to the more numerous studies that so far have been performed on the topic. Building a unified set of rules has been limited by the different cultures and laws in force in different countries/markets. In this sense paradoxically might be easier to create a unique financial authority controlling over the single markets. Concerning the chance to improve the transparency, by communicating

the net positions to authorities, the main obstacle is represented by handling such sensitive information; in this case a sure strength point is represented by the confidentiality agreements that authorities' employees already must stick to.

Finally, it comes the discussion on the findings of this research project from the methodological point of view. On the positive side the combination of semi-structured interviews and the abovementioned *interview improving iterative process*, revealed to be extremely useful to overcome the shortage of available people. The information collected are very deep and much more than expected. However, only three cases make the research suffer limitations in generalizing the results. Hence, increasing the number of experts is the main tip for going one step forward with respect to this research project. Another suggestion that can be proposed is to combine also a quantitative analysis on price levels in certain short selling conditions, which can add notable insights especially on the market effect and on the risk. However, such improvement will need the availability of more time to develop the research, which has been the main constrain in this MSc thesis project.

Table of content

List of Figures

List of Tables

To my father, to my mother and to Lisy

PART I : Theoretical Analysis

Chapter 1. Introduction and Research Design

The first chapter of this report is intended to provide the general introduction on the treated topic and to draw an overview of the research structure. Moreover, also aims, purposes and plans carried out are clarified. In turn, the background, the problem statement, the objective and questions, the framework, the definition of main concepts, the materials and the strategy followed in this research project are therefore presented.

1.1 Research Objective

1.1.1 Research Background

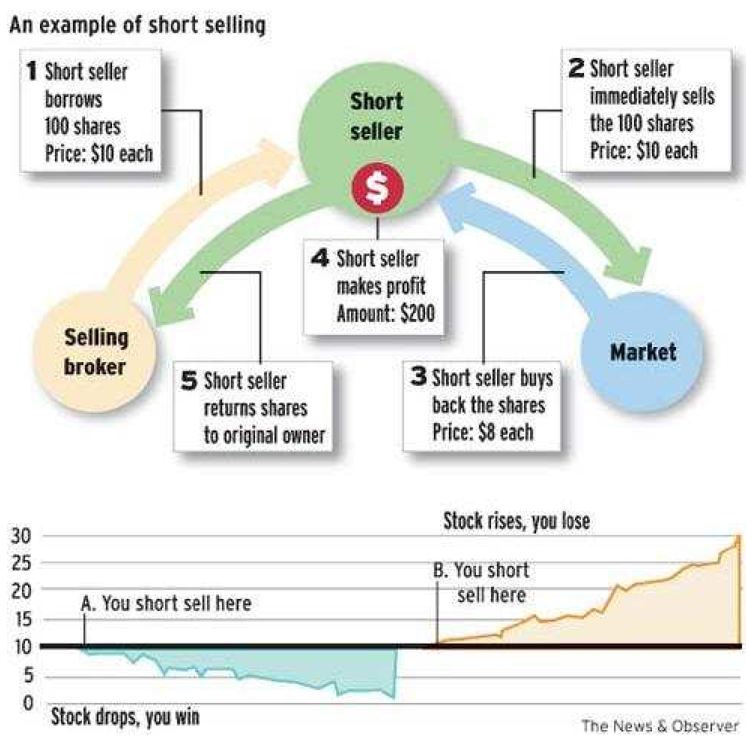
Short selling is a financial transaction consisting of a sale having particular features different from regular sales. Usually, in a regular transaction there are two agents: the seller and the buyer. The seller owns an object and he cedes the right of property to the buyer, in exchange of a payment. The amount paid supposedly reflects the market value of the object. In a short sale the peculiarity is that the seller does not own what he is going to sell, instead: he just borrows it from someone else (*regular* or *after borrowing* short selling), or simply he does not have anything (*naked* short selling). Selling something not owned puts the seller in what is called *short position*, meaning that he is obliged to give something to someone, who can be either the lender or the buyer; in case of regular short selling the short position in toward the lender, while in case of naked short selling the short position is toward the buyer. The seller hopes that the market price of the object – generally a financial security – will drop, so that later purchasing the sold security from the market will be cheaper and the price difference will represent a profit (Figure 1).

Short selling is nowadays practiced by many legal entities and for different purposes. Generally, individual investors apply short selling both for portfolio hedging strategies or for speculative reasons, while, for instance, companies make use of it in risk management (Brent et al., 1990). Other entities selling short are *hedge funds*, *mutual* *funds* and lately also *pension funds*, although less prone to operate in such sense, while the lender is usually a *broker-dealer*, trading the security on behalf of its owner.

Reasons to Short Selling

The driving force of short selling operations is the seller's downward expectation on the security trend, i.e. the security is likely to experience a price repositioning downwards. In fact, the price should normally reflect the value of the underlying asset, but several times that is not the case and either under or overvaluation can possibly take place. The latter is then exploited by short sellers waiting for the price to be sooner or later herded down by a market-shared expectation.

Figure 1: Short Selling General Mechanism.



Source: http://www.myinvestmentanalysis.com/wp-content/uploads/2009/07/how-short-selling-is-done.jpg.

Reasons underneath overvaluation lie in the own functioning of financial markets: *publicly traded companies* go on the market to raise funds and capitals by selling their securities (stocks, bonds, etc.). Buyers invest money in a company to gain from securities appreciation, from dividends or other forms of return. The current price of the security reflects how the market perceive the company value, namely the capacity to generate future cash flows and the risk associated with these cash flows. Investors expecting a lower capacity to stay on the market by a company, will be willing to sell – they perceive the security overvalued – while conversely there will be some investors willing to buy – perceiving hence an undervaluation. The dynamic balance is reflected in a certain price level. Short selling is therefore the expression of investors perceiving an overvaluation, but without any chance to sell as they do not possess the security.

Sources of Investors' Perception

As long as market participants have not got the magic sphere, the value of a firm is perceived by taking account of the company itself, its history, what it produces, which markets it involves and the features of such markets, whether the company is growing or not, which competitive forces it faces with, the product life and so on. Moreover, a company always promotes its products, presents expansion plans, influences customers and press, and it even makes creative accounting in its financials, to attract eager and careless investors. The huge amount of variables that must be considered makes thereby the perceiving mechanism inaccurate and individual and it creates both under and overvaluations.

Short Sellers Activity

Short sellers' activity is therefore based on finding overvalued companies. They focus on a few number of businesses – which makes their activity feasible – analyzing the history and the management. They perform different types of investigations, like studying deeply financial statements, matching numbers, reading footnotes, they focus on stock issue prospectuses, they interview employees, or ex-employees; otherwise stated, they analyze everything they can, to find the cause for a future disaster (Staley, 1997). The extreme depth of analysis carried on by short sellers, makes them considered like financial jackals, with all the ethical implications such consideration takes along.

Business ethics has to analyze positive and negative aspects of the practice; before analyzing them deeper, they are briefly anticipated, as completing part of the topic background in the following tables (Table 1, 2).

Table 1: Ethical Debate, Positive Features.

Positive Aspects
Short selling provides liquidity to the market by increasing the quantity of securities available for sale and in turn it contributes to lower transaction costs by reducing the bid-ask spread.
Short selling helps keep *derivative* prices in line with the underlying cash markets. The example provided is that if the price of a fund and the price of its shares differ, the possibility of *arbitrage* exists by buying the security at the lower price (let us say, shares) and shorting the security at the higher price (i.e. the fund). This will drive the lower price up and the higher one down, until they match. Hence, the short selling keeps the price in a proper alignment with the cash equity market.
Short selling is based on exploiting the overvaluation of firms and companies, hence going short helps incorporate negative information into prices with the effect, ethically valuable, of preventing losses for less informed investors.

Table 2: Ethical Debate, Negative Features.

Negative Aspects
Short selling can go along with campaigns to spread misleading and false information about their targets.
Short selling can cause further price falls.
Short selling can be said to be a bet.
Manipulators can voluntarily depress the price and they can worsen company capabilities to raise the needed capital.
Short selling can increase financial markets volatility.
Short sellers can acquire voting rights without being owners (for instance, by holding a long position from one broker and shorting the same security from another broker to offset the risk).
Naked short selling, consisting in selling securities without even borrowing them, theoretically[1] can give the trader the chance to sell an infinite number of shares and drive the price to zero.
Failing to deliver shares takes away the voting right from legitimate owners, and in terms of gains, it deprives them of profiting from renting shares out.

Source: Angel and McCabe, 2009.

Loads of issues hence concern with short selling and made it necessary the establishment of regulations submitting financial institutions to requirements, restrictions and guidelines, and striving for preserving the integrity of the financial system. Regulatory authorities have thereby been set up in each country – often more than one – and they can be either governmental or non-governmental organizations.

In turn, several examples of organizations mission are briefly presented to give the idea of what they aim at: the FSA (United Kingdom) strives for efficiency, fair markets, fair deals and business capabilities; the SEC (United States) aims at protecting investors

[1] The sale must not have any delivery time, the shares outstanding must be tending to infinite, buyers must be always willing to buy.

and facilitating the capital formation; same objective for CONSOB (Italy), pointing also to transparency and to fair information spreading. The Dutch AFM acts as a supervising entity to safeguard investments and provide same information to market participants. BaFin (Germany) focuses its mission on *trust* and credibility of the financial system, while SFC (Hong Kong) also underlines avoiding crimes and frauds and reducing the “systemic risk”, with the superior goal of keeping the financial stability of the nation on an even keel. In the end there is no explicit mention about short selling, as it is considered just a regular technique that can be applied, like any other, also in an illegal way flowing into market abuse, whose the limitation is one of the authority tasks.

1.1.2 Research Description and Problem Statement

Nowadays the phenomenon of selling short has global proportions and many private funds offer their investors to short on plenty of securities. Unfortunately, it is not possible to have the total accurate amount of securities sold short worldwide, because of the following reasons: firstly, professional short sellers refuse to disclose their short positions: in fact, *other investors’ decisions will be consistently affected by those* – Ed Johnsen said[2] – which for short sellers might result in being accused to influence the market and profit from *ad hoc*-generated price declines (Angel and McCabe, 2009); secondly, naked short selling can be performed without having any securities; thirdly, there is the possibility to take short positions by means of other financial instruments differing from the simple shorting[3]; lastly, failing to deliver securities, that happens especially in case of *hard to borrow* ones (Evans et al., 2009), can invalidate the transaction and make it difficult to categorize.

Short selling can be used for many reasons. The most common is to profit from a bear market, but it can also be used, for instance, to hedge long positions, reducing so the economic risk associated with security trading (Andersen, 2005). Generally the short position can be covered up to the closure of the market on the same day of the sale (short selling *Intraday*), or it can be kept longer (short selling *Multiday* or *Overnight*),

[2] http://www.tradersmagazine.com/issues/20_303/congress-short-sale-rules-105214-1.html.
[3] Writing a call option without having the underlying security is a *potential short position*; the concept will be better explained later on.

and the coverage deadline depends on the security class, on the trader reputation and on what has been agreed in the sale contract.

Hence, there are different legal entities that sell short in different ways for different reasons and moreover on different companies, according to the own market perception; on the other side, companies sold short can have different reactions. In such a complex situation many variables influence the short selling market and therefore make the job by regulatory authorities very difficult, considered that they strive for guaranteeing the financial markets efficiency and that short selling exploits exactly inefficiencies.

The main problem detected concerns thereby *how to improve the organizational aspects of the authority activity when regulating short selling*. Many regulators, in fact, intervene with occasional and several times partial short selling restrictions, even though as a matter of fact it also brings advantages in the market. Moreover, the multitude of financial instruments and the different ways to combine them cause problems (i.e. rules bypassing) that strike the goodness of regulations.

1.1.3 Research Objective and Intervention Cycle

The research objective is the intended purpose of this research indicating the project contribution to the problem. The objective of this research project is:

To help financial authorities improve the organizational aspects of short selling regulation, by analyzing the different methods to sell short and the technical and practical implications of those methods, by investigating the risk-market effects and the current organizational aspects, and by providing, according to the findings, organizational suggestions for financial authorities.

According to the nature of the research, it can be defined as a practice-oriented research helping so solve a practical problem. In this case, it descends clearly from the research objective.

Within the so-called intervention cycle the research takes two out of its five phases: the *diagnosis phase* and the *design* one. In the diagnosis phase one can diagnose what the causes of the problem are. In fact, the causes of a difficult regulatory activity have to be searched within the many methods or ways to acquire a short position, that also can be used by different legal entities and in different contexts. Hence, to the research will investigate those ways trying to find what implications they bring, with respect to regulations. Later on the research will enter the *design phase* in which, accordingly, general suggestions to help improve the organizational aspects of short selling regulation, where needed, will be given.

1.1.4 Research Questions

In order to achieve the research objective as stated in the previous paragraph, at least two general research questions (***GRQi*** and ***GRQii***) are needed. In turn, a table comprising both the two general and the six deepening specific research questions (SRQ's) is presented:

Table 3: General and Specific Research Questions.

GRQi *(Diagnosis Phase)*
What are the different methods and the technical-practical implications of short selling, the risk-market effects, and the current organization of short selling regulatory activity?
SRQa: What different ways of selling short do appear in the financial literature? SRQb: What are the risks and the effects on financial markets, associated with short selling? SRQc: How is the short selling regulatory activity organized? SRQd: Are there ways of selling short to move around regulations?
GRQii *(Design Phase)*
How can regulators improve their regulatory activity regarding short selling, taken account of the findings in GRQi?
SRQe: What actions can regulators take in order to improve the regulatory activity? SRQf: What does it prevent regulators to take the actions named in SRQe and how can discerned obstacles be overtaken?

Representing the steering force of the research, specific research questions need to be explained more specifically.

SRQa: What different ways of selling short do appear in the financial literature? This question aims to describe which are the different financial instruments (representing the many ways of selling short) by means of which it is possible to sell short, especially because several of these instruments are difficult to regulate, due to the nature or the type of transaction involved. The question is necessary to fully understand why regulatory organizations apply a lot of different rules to regulate the short selling.

SRQb: What are the risks and the effects on financial markets, associated with short selling? As the short selling is a risk-taking transaction, the purpose of question ***b*** is to assess the risk associated with short selling and also the effect it brings on financial markets. By means of this kind of information, the need for regulations will be clarified.

SRQc: How is the short selling regulatory activity organized? The question ***c*** addresses the *how* concerning the regulatory action. It aims to explain how the regulatory activity is conceived and organized. The investigation is needed to understand which are the weakness points in the regulatory activity and how the short selling methods affect financial authorities at the organizational level.

SRQd: Are there ways of selling short to move around regulations? The specific question ***d*** is intended to analyze if there are possibilities to bypass regulations, for instance, by exploiting the many alternatives to acquire a short position. It shoots for testing the regulatory activity.

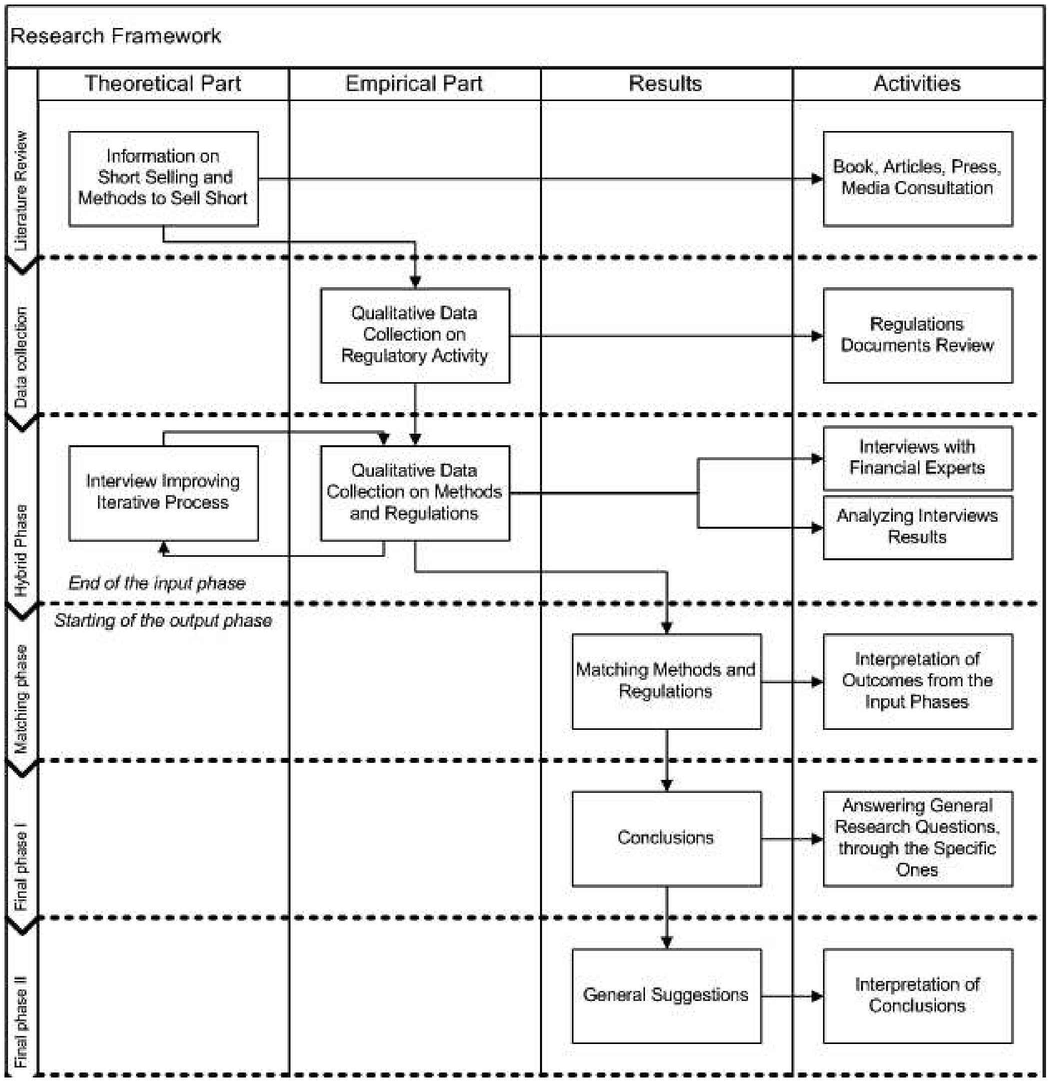
SRQe: What actions can regulators take in order to improve the regulatory activity? In light of the insights on short selling practical aspects, on the risk and on the current regulatory activity emerged from the preceding questions, ***SRQe*** enters the design phase of the intervention cycle, during which the weakness points identified are turned into opportunities to improve the regulatory activity. Answering such a question is necessary in order to draw general suggestions for financial authorities and to thoroughly realize the research objective.

SRQf: What does it prevent regulators to take the actions named in SRQe and how can discerned obstacles be overtaken? The previous specific research question will show how to improve the regulatory activity. However, several improvements can face obstacles to their realization. ***SRQf***, thus, strives to assess if any obstacle exists, and in what it consists. This question will also address the way to overcome these obstacles, which is substantial for the improvements researched.

1.2 Research Framework

In this section the research framework is presented according to the elaboration made in the research proposal. The framework is made by three parts, corresponding to the first three columns (the last columns contains more specifically the activity going to be carried out) and six phases represented by the rows. The phases constitute two big blocks: the input and the output one, the latter matches with the "results part".

Figure 2: Research Framework.



The general structure of the research presents two main parts: the theoretical one and the empirical one. The first deals with the literary information regarding the topic; the second consists in gathering qualitative data.

The Theoretical Part

It consists of two phases: 1) literature review; 2) interviews improving. The first aims to bring the needed knowledge about short selling especially about the different ways to sell short. The second phase is based instead on a *iterative process* involving the interviews. During such process, by drawing concepts from each set of answers, a new more specific set of questions will be forwarded to the next expert, in order to guarantee a very *in-depth* investigation. This improving process will help understand the most specific aspect of short selling.

The Empirical Part

It is made by two series of input:

1. Documents and financial press review concerning the regulatory activity;
2. Interviews with experts on the topic.

The first phase of data gathering will be performed by searching the main information regarding the regulatory activity directly on Authorities' websites. Moreover, reviewing the financial press will constantly be carried on during all the path of the research, to keep regulatory issues up-to-date. The second phase is intended to deepen instead practical aspects, like the type of assets mostly used, or the financial reasons lying underneath short selling.

The Results Part

In the results part all the information collected will be integrated and analyzed to understand what the common problem brought by short selling are, from the practical perspective, from the market-effect perspective and risk perspective. Furthermore, it will be also drawn why it causes those problems, how they affect the regulatory activity and which the main weakness points in the regulatory organizations are. Finally, conclusions and general suggestions on how to improve the regulatory activity will be drawn, especially whereas they want to preserve the positive effects taken by short selling. In the last column the main activities associated with each step are also presented. Those activities are not going to be shown in this report, as they are more concerning with the initial planning of the research addressed in the research proposal.

1.3 Research Material

This section addresses what the researcher needs for answering the research questions. In turn the material itself, the respective source and *how* it will be analyzed are thus presented. Each research object is associated with a source. The objects are inside each specific research question, hence a table containing the ***SRQs***, and other information is presented below.

Table 4: Information Sources.

Research Questions	***Source***		***Access***
GRQi: What are the different methods and the technical-practical implications of short selling, the risk-market effects, and the current organization of short selling regulatory activity?			
SRQa: What different ways of selling short do appear in the financial literature?	Literature Media Individuals	Books on short selling, financial articles, experts.	Content analysis, Interviews
SRQb: What are the risks and the effects on financial markets, associated with short selling?	Literature Media Individuals	Articles, books, financial press, websites, experts.	Content analysis, Interviews
SRQc: How is the short selling regulatory activity organized?	Literature Documents Media Individuals	Articles, regulatory authority reports, financial press, websites, experts.	Content analysis, Interviews
SRQd: Are there ways of selling short to move around regulations?	Media Individuals	Financial press, websites, experts.	Content analysis, Interviews
GRQii: How can regulators improve their regulatory activity regarding short selling, taken account of the findings in GRQi?			
SRQe: What actions can regulators take in order to improve the regulation?	Documents Media Individuals	Financial press, websites, experts.	Content analysis, Interviews
SRQf: What does it prevent regulators to take the actions named in SRQe and how can discerned obstacles be overtaken?	Media	Financial press, websites.	Content analysis

1.4 Definition of concepts

This paragraph deals with the main concepts that are going to be used in the course of the research. Many of these concepts have been introduced in the background aiming to explain the context of the topic object of the research:

- Short position (short exposure): Situation where a dealer or investor (called short seller) sells commodities, financial instruments, shares, etc., which are to be delivered on a future date at a certain price, but which he, or she, does not own at the time of sale[4];

[4] http://www.businessdictionary.com/definition/short-position.html.

- Long position (long exposure): situation where an investor purchases (or contracts to purchase) commodities, financial instruments, and shares, etc., with the intention of holding them in anticipation of a price increase[5];

- Bid-ask spread: the bid-ask spread is the difference between the price to which a seller is willing to sell something and the price a buyer is willing to pay for buying it;

- Hedge fund: an aggressively managed portfolio of investments that uses advanced investment strategies such as leveraged, long, short and derivative positions in both domestic and international markets with the goal of generating high returns[6];

- Mutual fund: a mutual fund is a company that pools money from many investors and invests the money in stocks, bonds, short-term money-market instruments, or other securities[7];

- Pension fund: pooled-contributions from pension plans set up by employers, unions, or other organizations to provide for the employees' or members' retirement benefits[8];

- Brokerage house: a broker is a mediator between a buyer and a seller (O'Sullivan and Shreffin, 2003);

- Derivatives: a derivative is a financial instrument whose payoffs and values are derived from, or depend on, something else. This something else is called the primitive or the underlying (Ross et al., 2008);

- Arbitrage: it generates profit from the simultaneous purchase and sale of different, but substitute, securities (Ross et al., 2008);

[5] http://www.businessdictionary.com/definition/long-position.html.
[6] http://www.investopedia.com/terms/h/hedgefund.asp.
[7] www.sec.com.
[8] http://www.businessdictionary.com/definition/pension-fund.html.

- Bull market: securities or commodities market in which prices are rising, bulls are trading in high volumes, investment interest is high, and the public views the economy as strong and getting stronger[9];

- Bear market: period in which prices of securities or commodities fall by 20 percent or more[10];

- Short interest: the total number of shares of a security that have been sold short by customers and securities firms that have not been repurchased to settle outstanding short positions in the market[11];

- Naked short selling: in a "naked" short sale, the seller does not borrow or arrange to borrow the securities in time to make delivery to the buyer[12];

- Hedging: hedging is the risk exposure reduction by means of derivatives (Ross et al., 2008).

- Short interest ratio: the ratio between the number of shares that are sold short and the average daily trading volume[13]. The figure is linearly proportional to the amount of short sales, hence, it is an indicator of investors' expectation in a *bear market*.

1.5 Research Strategy

The research strategy is part of what is called the "technical design", that is made by the practical steps behind the research concept. To be more specific, in this section the *how* concerning the sources of information will be addressed; that practically means that the research strategy deals with the way by means of which one is going to obtain the information (i.e. how to analyze the information from the research material mentioned in section 1.3) required for achieving the research objective. The strategy is composed by methodology and methods and the preliminary list of interviews performed in the data gathering phase.

[9] http://www.businessdictionary.com/definition/bull-market.html.
[10] http://www.businessdictionary.com/definition/bear-market.html.
[11] www.nasdaq.com.
[12] www.sec.com.
[13] http://www.investopedia.com/terms/s/shortinterestratio.asp.

1.5.1 Methodology and methods

The methodology is the decision path of the research. This research is deepening, qualitative and empirical: deepening, because focusing on a specific topic within the finance universe which it intends to improve the knowledge about; qualitative, as a quantitative analysis, assessing short selling effects on financial markets and the need for regulations, would have on the one hand the problem of isolating those effects from the many other variables influencing the market and on the other hand would be too much time consuming for a MSc thesis.

The literature analysis along with the empirical data gathering are intended to provide information on the alternative ways of selling short and on the risk the short selling brings, in order to explain the need for regulations. Authority interventions and the organizational level of financial authorities will be thereby investigated to understand if/how different financial instruments affect the regulatory activity. Interviewing experts and key-players will help get better the practical aspects of short selling and possibilities for regulation improvements.

The different types of sources involved and different collecting methods will contribute to keep the triangulation, both of sources and of methods, continuously applied. The *qualitative content analysis* is the chosen data accessing method. It is based on the assumption that words and phrases mentioned more often are those reflecting important concerns in every communication. However, it will not consist in a simple word counting, but more widely in a content categorization and classification, aiming at catching the main issues helping answer the research questions. Besides, also an interview improving iterative process will be used along with interviews: after starting from a very general set of questions in the first interview, main concepts and examples will be identified in the answers, in order to narrow down on those the subsequent set, with the purpose to make each interview more specific and to obtain more specific answers.

All these steps guarantee having different perspectives on the topic, needed for achieving information depth in the research project.

1.5.2 Preliminary interview list

The section provides a preliminary interview list of suitable candidates for the empirical data gathering. According to common sense criteria, to the nature of the topic and to make data sources as assorted and reliable as possible, five different categories have been detected. The candidates are presented in the following table.

Table 5: Preliminary Interview Candidates.

Governments
Dutch Ministry of Finance Italian Ministry of Finance
Financial Authorities
The Dutch National Bank AFM – the Netherlands Consob – Italy
Banks
TEB – The Economy Bank Deutsche Bank Insinger de Beaufort ING Bank Kempen & Co. Staalbankiers ABN AMRO Fortis Bank Aegon AT Bank Rabobank KAS Bank
Insurance Companies and Pension Funds*
Achmea Groene Land Achmea Zilveren Kruis
Hedge Funds
DV Trading PMA

* Most of the banks also comprise insurance and pension services or independent branches.

Chapter 2. Theoretical Framework

According to the research framework presented in the first chapter (Figure 2), the theoretical framework of the research is split into two phases. The first aims at presenting the wide universe of short selling (§ 2.1), the second introduces several techniques applied by short sellers and as contrast with price predictability also the so-called random walk hypothesis (§ 2.2). In turn, the risk taken along with such a practice is presented (§ 2.3) and finally the ethical debate will be deepened (§ 2.4).

2.1 The Short Selling Universe

Short selling is an unusual financial transaction that became very popular lately, because of last crisis speculation trends. Regular investments see an investor buying an asset which he expects to rise in value to pocket profits under form of interests, or dividends, or afterward sales. With short selling, as explained in the introductory chapter, investors make money from a fall in value. This is possible because the asset is borrowed with the promise of giving it back later; once the loan has been granted the investor sells the asset immediately and waits for the price dropping. After the drop the short seller buys back the asset at the new lower price, returns it to the lender and pockets the price difference. When the price rises instead, the short seller loses money, which is basically the seller's own risk in such operation. Unfortunately, the amount of money that can be lost is even greater, because, as the price increases and short sellers rush to cover, most likely there will be lacking of natural sellers, which can force the short seller to stay short – and in case of further rising, to lose more.

Beside the simple explanation of the mechanism underneath short selling, lacking of clarity has been detected instead when short selling concepts are broadened. For instance, it is not clear if a short selling operation must imply only one or can also involve more transactions ending up in a short position, especially taken account that nowadays all market participants have multi-stock portfolios comprising different investment strategies for each security. Hence, a dilemma arises, for which more information need to be collected in the empirical phase:

Do short selling operations involve only one transaction (in which the seller takes a short position), or can stock portfolios (comprising at the same time different strategies for different securities and resulting in a short gross balance), also be considered forms of short selling?

During the last financial crisis, when the market turbulence has been really strong, short selling has seemed to be a one-way betting amplifying the downward tendency, with everyone pointing on it as the main cause of crisis worsening; however, even though short selling can be numbered among speculation tools, there is no evidence proving it worsened the crisis, but only investors' feelings[14]. Beside this, short sales should supposedly end when the fair price is achieved, because of no price-value spread which to speculate upon.

Naked Short Selling[15]

A particular form of short selling is the *naked* one, whereby investors manage to sell an asset without even borrowing it. Naked sales cannot be detected, unless the seller has to provide a borrowing agreement; that is why naked short selling is illegal in most of countries or heavily restricted. The two transactions are deeply different. In the first the short seller borrows the shares and then he sells and delivers them, and the short position covering is giving the shares back to the lender. In the naked one the first action by the seller is trading something that either he does not own and he also does not have with the promise to deliver it, and the short position in such a case is toward the buyer instead.

Actors, Technical Requirements and Securities Involved

Short selling is a form of investment based on investors' beliefs but taken account of its extreme complexity – for which examples will be provided in the course of the research – it is practiced only by professional parties. Indeed, as stated by Vayanos and Woolley

[14] http://www.reuters.com/article/idUSTRE54C65I20090513.

[15] Naked short selling is nowadays totally forbidden on the US market by SEC since 2005, while in EU markets the discussion is still open and debated. Lately (19th, May, 2010), Germany has also completely forbidden naked sales, while other member countries are still discussing.

(2009)[16], "*investors delegate virtually all their involvement in financial matters to* ***professional intermediaries*** *– banks, fund managers, brokers…*".

Hence, in regular short selling shares come from the inventory of brokerage houses. If professional intermediaries are not considered, the trader is generally a member of the brokerage house, having an account by them with a safety amount of cash to guarantee the sale[17]. Moreover, there can possibly be limitations or different money thresholds for different securities. Borrowing makes the trader incur in interest expenses – generally around four to eight percent – calculated on the number of days elapsing since the sale to the position closure.

According to the nature of the transaction short selling can focus on heavy price falling or on trend reversals; the earlier the short sale is placed, the higher the chance to profit in both cases. Particularly, weaker industries are the ones having the highest chances to keep the negative trend for longer and resulting hence more profitable or less risky. Ease of borrowing the stock also influences short seller's choices. Normally an easy-to-borrow stock is highly priced (i.e. around 20€) and floating. The higher the fluctuations, the higher the potential gains and losses, the higher the risk associated with the security. The security risk also affects broker's margin requirements, which translates into cash balance on the account. It appears clear that a highly risky security is easier to borrow, as the reward for lending is used by the owner to partially cover the risk, while lowly floating securities usually belong to the strongest and less risky companies.

A particular type of security that short sellers are aware to avoid is the so called *penny stock*. Those shares are traded at a really low price (they indicate a rule of thumb with a price below 5€) and in really small volumes and mostly they have fallen from pretty higher prices. Penny stocks are generally used to buy a large amount of shares with a limited amount of money, with the hope that the price will go up. However, when the trading volumes are that low the security is not likely to be listed on the major exchanges and that means the capital invested is not protected by the competent authority. Furthermore, penny stocks are characterized by *short squeezes*: small periods in which the price of the stock increases. Short squeezes are typical in stocks affected

[16] http://www.voxeu.org/index.php?q=node/4052.
[17] Figures are pretty much varying from one brokerage house to another.

by downtrend and they take a curious technical name: *dead cat bounce*. They are seen like the last life expression of a dying security. The most important effect of dead cat bounces is that short sellers wait for them as a moment to add on their short position. The phenomenon is due to the increasing number of short sales, that at a certain point causes an imbalance between the supply and the demand: the constant selling, indeed, causes bid shortage. Then some initial buying take place and the high short interest leads to short covering, that is the squeeze[18]. More details regarding the securities mostly used for short selling purposes will be searched during the empirical data gathering.

Short Selling and Financial/Technical Development

Short selling evolved along with financial markets development and with existing communication tools. The spread of new technologies made transactions and financial operations faster and faster. Many historical examples of short selling consist in transactions that went on for months, meaning that in the past it has been more difficult to profit from bear trends, because of two main reasons:

- To discover mispricing going on for months or years requires a lot of effort: the higher the mispricing, the better the job to hide it, the higher the effort needed to discover it;
- To keep a short position for months requires great patience and capitals, in terms both of checking constantly the market trend and of covering or adding according to price fluctuations.

This has probably led to look at short sellers like vultures on dying preys, basically because when those months-lasting short sales take place, the company shorted is most likely to go bankrupt. Conversely, today the situation is quite different:

<u>*Intraday Short Selling*</u>. Currently, market floats are instantaneous, thanks to an extremely fast information flow. This allows short sales to happen more frequently and on shorter trends, like in case of *intraday* short selling. It consists in short selling with coverage in the same day. Such a trade is nowadays possible and particularly easy thanks to market makers and to extremely evolved communication channels. When an

[18] http://www.investorwords.com/4559/short_squeeze.html.

investor wants to trade, he simply tells the broker what kind of operation he wants to perform; the broker acts as a market maker: a financial entity that follows the day trading constantly and keeps the spread between bid and ask prices; market makers buy the security from a seller (at the ask price), even though there is no buyer yet, and they find a buyer willing to pay the bid price. Bid prices are higher than the ask ones so that market makers realize their profit.

Overnight Short Selling. When the position stays open after the day closure short selling intraday automatically evolves in short selling *overnight*. In some cases the closure may be compulsorily on the day after, while in several others it is free. It depends on the security traded: for instance, a class A security is free-closure and the broker gets only the daily remuneration rate, while for other classes beside compulsory closures also penalties and a higher charging rate are applied.

Supports to short selling overnight can be found in two works related to each other: according to Miller (1977), the dispersion of opinions due to information surpluses could bring to higher opening prices, especially on stocks inclined to overpricing; about thirty years later, Berkman et al. (2008) proved that the opening price is relatively higher than both the intraday price and the closing price by studying an eight years trend from 1996 to 2004. The reason lies in the night regime of the market, characterized by a reduced liquidity and an overloading of information not incorporated in the price yet. Thereby, after investors realize the opening overpricing, the price is likely to fall down through the closing price of the previous day, with gains for short positions held open. Hence, profiting from overnight short sales depends on two important conditions:

1. Finding which securities are prone to overpricing; according to Miller (1977) those stocks have the following features:
   a. great dispersion of opinions throughout the trading day;
   b. limited arbitrage due to more binding short sale constraints;
   c. high transaction costs;
2. Stocks must be listed in the major exchanges, which is not obvious considered that the features listed in the first point, are typical for weaker stocks usually

overcharged by brokers and limitedly traded, otherwise the investment is out of the authority protection.

The Short Sellers' Buying Power

One of the main constrains limiting both the intraday and the overnight short selling is the *buying power*. It would be better defined by "shorting power", because it is the maximum amount of capital, in form of securities, that the trader can short. The amount varies with the type of short selling. Intraday short selling has a threshold placed by the broker at four times the account balance: so, for instance, a 10'000 € account can short at most securities for 40'000 €. For overnight short selling the buying leverage is driven by a 2 to 1 ratio: so, with a 10'000 € account balance the maximum amount that can be short is equal to 20'000 €. Furthermore, to operate intraday in the US market the account balance must be over 25,000 USD.

The Opposite of Short Selling

To complete the glance on short selling in this paragraph the opposite transaction to short selling, named *margining*, is described. The operation consists in buying by using liquidity provided at a certain interest rate, by any financial institution. As being the opposite of short selling the investor believes in a rising price. When it happens, the trader resells the security and realizes more cash than he borrowed:

Cash borrowed + Interest < Cash from resale

The margining can be closed within the day (*intraday margining*) or not (*overnight margining*). In the latter case the conditions are more restrictive with respect to the former: 1) *ad hoc* authorization provided by the broker; 2) liquidity able to cover 100% of the position, to avoid incurring in higher interest payments.

Short Selling Profitability

In order to complete the comprehensive glance on short selling provided in this chapter, some information concerning its profitability need to be mentioned. The scenario is presented from the short seller's point of view. Purpose of this section is not to draw rigorous profitability laws, but rather to give a general idea on the factors that can be involved in a short selling operation. As explained schematically in Figure 1.1, the borrower pays a fee to the lender, that is considered not negligible, while transaction costs are not taken into account. Figures to be considered in the whole operation are the short selling price (P_s), the future repurchasing price (P_r) and the borrowing fee (T_s)[19]:

$$P_s - T_s > P_r \tag{1}$$

When the reasons why a trader should buy securities from the short seller rather than from the market are introduced, the (1) becomes slightly more accurate. The first reason is that natural sellers, i.e. physically owning the stock, are less numerous than short sellers, because holding a security – that is being in a *long position* – serves to profit from its rise in value or other abovementioned ways (§ 2.1), hence, most likely share-holders are not willing to sell. The second one is: feeling that the price will drop in the near future makes the short seller able to discount the current price of the security, "narrowing the *bid-ask spread*" (Angel and McCabe, 2009). Taken account of the discount (D_s), equation (1) becomes thereby:

$$P_s - T_s - D_s > P_r \tag{2}$$

Rearranging figures in inequality (2) makes the general profitability overview more clear:

$$P_s - P_r > T_s + D_s \tag{3}$$

Inequality (3) means that in order to make the transaction profitable, the short seller must wait at least until the price fall is higher than the lending fees plus the discount he practiced, <u>provided the falling takes place</u>. This amount of time – *delivery time* – can vary according to the type of securities involved, to the broker, to the market where the operation is placed or to other private agreements. However the main point to be highlighted after this paragraph is that *making short selling profitable is fundamentally*

[19] The lending is done in exchange of what is called *collateral*. The collateral guarantees the borrower will give securities back. It can be either cash or financial instruments. If the collateral is represented by cash, the lender pays interests to the borrower at an interest rate lower than the market one, while when the collateral is a financial instrument, the borrower pays a *commission* to the lender. In the latter case, the borrowing fee, is exactly the commission, while in case of cash, it is represented by the difference between the interests the borrower would receive at the market interest rate, and the lower interests the borrower receives from the lender (CONSOB, 2009).

based on the short seller's ability to set the right agreements and use the right financial operations at the right time.

2.2 Financial Analyses and Short Selling

The general overview on short selling presented in § 2.1, provided already several indications on the role short selling plays in financial markets and the effects it causes. One of the aspects that though needs to be better investigated is the relationship that short selling has with the concept of efficiency, as for some reasons it adds efficiency to the market, while for other reasons it exploits conversely inefficiencies. Thereby, a further investigation both on the market efficiency itself and on related arguments, like the relationships between short selling and different types of financial analysis will provide valuable information helping understand where and how short selling find room to exist in such a complex scenario, like the financial market.

2.2.1 Introduction: the Efficient Capital Market Hypothesis (ECM)

The Efficient Capital Market hypothesis – since now on, ECM – was introduced by Fama (1965, 1969, 1970), stating the capital markets *informational efficiency*: the efficiency lies in securities prices reflecting at any moment all the information available. The study pointed out three efficiency levels (weak, semi-strong, strong), according to the type of information built in the price (price historical series, other publicly disclosed information, insider or privileged information[20]). After the introduction of such theory a lot of evidences follow each other either supporting and against that: for instance, according to Khan (1986), the ongoing form of efficiency is the semi-strong one, while evidences from the Turkish market are not consistent with the same efficiency level (Yalama and Celik, 2008). However, the purpose of this section is understanding the kind of relationship existing between market efficiency and short selling, rather than merely presenting all these evidences.

The points to be underlined are then: 1) efficiency means that of all the available information are incorporated in the price, and 2) efficiency goes along with the absence

[20] Information not publicly disclosed, but possessed by someone who, by means of that, can affect the price.

of so-called *abnormal returns*[21]. Before assessing the existence of abnormal returns, the three levels of efficiency need to be deepened:

1. ***Weak Efficiency***: the past prices are already incorporated in the current price, so they cannot be used to predict future prices, in accordance to the "random walk" hypothesis (changes in the price do not follow previous patterns, which Aga and Kokaman in 2008 provided evidence for, by investigating an index on the Istanbul Stock Exchange); on the other hand, there can be cases in which the findings are not consistent with this efficiency level (Abeysekera, 2003). The weakness allows securities to be under or overvalued, although randomly[22], which, according to Hu (2007), might be detected by means of fundamental analysis[23];
2. ***Semi-Strong Efficiency***: besides the past prices, also all the public information are built in the price; this means efficiency increases and chances of mispricing decrease. Inefficiencies find room in the different interpretation of the information. However, still there can be chances to find mispricing by means of fundamental analyses (Hu, 2007);
3. ***Strong Efficiency***: in the case of strong efficiency, the non-publicly disclosed information, namely the *inside information*, are in the price as well; in such a market there is no room for inefficiency, meaning that there are no chances to gain abnormal returns by means of timing strategies[24].

Evidences against the ECM hypothesis and proving abnormal returns, have been provided though in many cases (Brickley and Schallheim, 1985; Alexander et al., 1988; Sanders and Zdanowicz, 1992; Firth, 1996), meaning that in some way inefficiencies

[21] Abnormal return is the difference between the expected return (estimated on an asset pricing model) and the actual return (http://www.investopedia.com/terms/a/abnormalreturn.asp). The market efficiency theory confutes the possibility to "beat the market", namely to gain higher returns by trading assets with the right timing, whereas higher returns should take place only along with riskier investments (http://www.answers.com/topic/efficient-market-hypothesis).

[22] In cases of mispricing, the "efficiency" is guaranteed by the assumption those cases take place randomly and are normally distributed.

[23] Fundamental analysis is the study of everything affecting the value of a security, from macroeconomic indicators, like the economy and industry conditions, to factors belonging to the company, like financial conditions and the company's management (http://www.investopedia.com/terms/f/fundamentalanalysis.asp).

[24] http://www.econlib.org/library/Enc/EfficientCapitalMarkets.html.

still find space. In fact, inefficiency is due to anomalies, namely empirical results proved to be not consistent with the general theory about asset-pricing behavior. The latter is indeed based on the assumption that traders act according to a rational and logical behavior[25]. But, that is not always the case and the so-called theory of *behavioral finance* (BF) has therefore risen, based on the counterhypothesis that investors act irrationally. Surprisingly, Brav and Heaton III (2001) though stated that from a mathematical perspective the two theories (ECM and BF) are difficult to distinguish. Hence, the irrational behavior causes anomalies in the market and decreases its efficiency. In this controversial landscape findings going in the opposite direction could not miss. For instance, Malkiel (2003) asserts that "*our market is more efficient and less predictable than many recent academic papers would have us to believe*", while Schwert (2003) pointed out that anomalies in the financial market are more apparent than real. His findings say that as an anomaly is detected supposedly the market react and it disappears.

Short selling relies on the trader's belief that the price will drop, because of overpricing. This scenario is not consistent with the *strong efficiency level*, as the latter does not admit any mispricing. By contrast, it fits with the other two levels (*semi-strong* and *weak*) that still are forms of efficiency (Figure 2.1). ***Hence, besides in conditions of inefficiency, short selling can exist also in conditions of weak and semi-strong efficiency***. In fact short selling, rather than being itself an anomaly, exploits the markets anomalies – caused by irrational behaviors and bringing to overvaluation. That is why market anomalies cyclically appear and disappear (Schwert, 2003), while short selling is overall present. On the other hand, the principle is the same of taking long positions to exploit underestimations. In both cases there is counterbalance of irrationality that adds information to the price and hence efficiency to the market.

2.2.2 Short Selling and Fundamental Analysis

In the previous paragraph it has been explained how short selling, as investment, can exist even in conditions of efficiency. In the same way, but as instrument to study an investment (e.g. short selling), also the ***fundamental analysis can exist in conditions of efficiency***: indeed, when efficiency is not at the strongest level, the fundamental

[25] http://www.investopedia.com/university/behavioral_finance/behavioral3.asp.

analysis can be used either to find public information not yet built in the price (in case of *weak* efficiency), or to find misunderstanding in receiving information among investors (in case of *semi-strong* efficiency). However, the fundamental analysis will detect again both over and undervaluation, that will be prey respectively of (short) sellers and (short) buyers, which makes the fundamental analysis a reliable instrument for all the traders and for any strategy (short and/or long). Findings of this paragraph are hence:

- Statement on the positioning of fundamental analysis with respect to the efficiency concept of the ECM;
- Statement on the similarities with short selling positioning with respect to the same concept.

The meaning of these findings will be better understood with the more information provided in the next section and in Figure 3 where the all scenario is schematically presented.

2.2.3 Short Selling and Technical Analysis

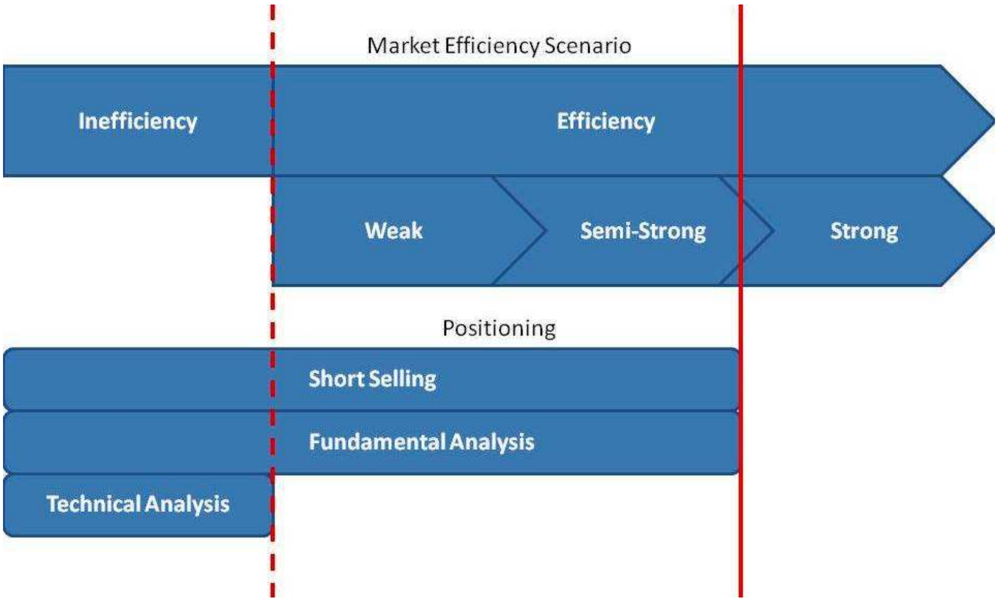
Technical analysis is the study of price and volume trends in order to detect the future market activity[26]. In this section, the same investigation performed for fundamental analysis will be carried out for the technical one. So, the positioning of technical analysis with respect to the market efficiency and its relation with short selling will be addressed. These information will complete the scenario partially drawn in the previous two sections.

Differently from the fundamental analysis and from short selling, the ECM hypothesis does not allow the technical analysis to live in conditions of efficiency. In fact, ***the ECM theory does not allow any price predictability based on the analysis of previous price series, not even in the weakest form of efficiency***. Likewise to the ECM theory, also in this case, there are evidences supporting or against the technical analysis: according to Hsu et al., (2010) this kind of investigation has a statistically significant predictive power in case of emerging markets, while generally speaking, it is proved being more accurate in the short run (Marshall et al., 2008), and objectively more used

[26] http://www.investopedia.com/terms/t/technicalanalysis.asp.

by fund managers especially for weeks-run (Menkhoff, 2010). However, despite such evidences of reliability, the technical analysis still *loses its validity* when the ECM theory is assumed. Therefore, it can be stated that technical analysis can be an *investment-studying* tool exploitable only in conditions of *market inefficiency*. Figure 2.1 presents the efficiency scenario, in accordance to ECM hypothesis, and the positioning of the financial analyses and short selling with respect to the efficiency concept.

Figure 3: Market Efficiency and Financial Analyses.



From this reasoning process, the technical analysis (TA) can be an *investment-studying* tool, helping short selling, only if the market is inefficient, or if its validity in understanding market trends is proved also in conditions of efficiency (Table 6):

Table 6: Technical Analysis as Short Selling Tool.

Market Efficiency[27]	*TA Validity*	*TA as Short Selling Tool*
YES	YES/NO	(??)/NO
NO	YES	(??)

[27] No matter which level of efficiency, as even the weak one denies the price predictability by mean of historical series.

Once proved the technical analysis validity, a further step will be to understand *if* and eventually *how* the it can help short sellers. According to James Hyerczyk – a commodity trading advisor with the National Futures Association – using the technical analysis for purposes of short selling has a psychological reason: as the technical analysis is based on detecting trend reversals, short sellers can generate a trend reversal by creating conditions unfavorable to long positions (like, for instance, a short interest increase). Security holders – i.e. long positions – will sell the security due to the fear of a possible price drop and in such way short sellers start the downtrend[28].

A part from the psychological reason, the use of technical analysis for short selling purposes implies the use of two types of *technical indicators*[29]:

1. ***Overbought Indicator***: it makes the short seller understand when the security runs out of buyers and, so, is ready to reverse the trend[30];
2. ***Trend Indicator***: it acts as a confirmation that the trend has been reversed, by means of, for instance, a *support*[31] violation.

According to Pring (2002), there are three types of market trend acting simultaneously: primary trends (lasting since 9 months to 2 years), intermediate trends (6 weeks to 9 months), short-term trends (2 to 6 weeks). The most difficult to identify are the last ones, because they are influenced by random news events. The randomness of short-term trends clashes with the finding that technical analysis is more used in the short runs (Marshall et al, 2008; Menkhoff, 2010). By contrast, two types of investors are detected: the long and the short ones. The latter are more interested in small price movements, which is consistent with a possible use of the technique for short selling purposes. These findings can be taken as confirmation that technical analysis, even if not properly used in the service of short selling, at least has some to do with it.

[28] http://www.investopedia.com/articles/stocks/08/short-selling-analysis.asp.
[29] "*A technical indicator is any class of metrics whose value is derived from generic price activity in a stock or asset. Technical indicators look to predict the future price levels, or simply the general price direction, of a security by looking at past patterns*" (http://www.investopedia.com/terms/t/technicalindicator.asp)
[30] http://www.investopedia.com/terms/o/overbought.asp.
[31] A *support level* is a price which at that moment is difficult to go beneath, because there are supposed to be a lot of buyers that would enter the stock and make bounce the price back (http://www.investopedia.com/terms/s/support.asp).

Accordingly, question marks in Table 6 are thereby explained. What still remains questionable is whether technical analysis can exist in efficiency conditions, which is a possibility excluded by the ECM hypothesis; however, solving this issue is beyond the scope of this research.

2.2.4 Short Selling and "Random Walks"

To complete section 2.2, this paragraph analyzes the relation between short selling and the so-called theory of "random walks". Already in the 1964, Godfrey et al. stated that the random walks is the only price-determining mechanism consistent with profit-oriented market participants. They spoke about "*adaptive nature of the market*", so that no rules capable of price prediction may exist, since they can turn into general rules known by everyone, and producing a generally spread profit. Such profit by definition cannot be positive, because in every market where someone profits, naturally someone else loses. The concept is consistent with short selling, that from the seller perspective is a profit-oriented operation, even though based on a loss in value. Furthermore, the abovementioned adaptive nature of the market can be seen also as an intrinsic mechanism clashing with the short selling negative features, like for instance exaggerations of feelings that might cause heavier price falls.

Fama (1965) pointed out the principal differences existing between the two classical theories of *technical analysis* and *fundamental analysis* compared to *random walks*. The technical analysis uses time series to try to understand the prices, on the main concept that "*history tends to repeat itself*". On the contrary, the fundamental analysis is based on the company financials, based on two convictions: 1) the asset price incorporates all the publicly disclosed information regarding the company, which the asset belongs to; and 2) in the *long run* any asset reflects precisely its intrinsic value. The random walk theory takes its strength from the assumption of market efficiency (§ 2.2.1), saying that the real price floats *randomly* around the intrinsic value of the asset, according to *how* and *when* the information reaches all the investors[32]. By contrast, it can possibly be observed that in the assumption of informational efficiency, all investors should get the same information at the same time.

[32] http://www.sostrader.it/sostrader/didattica2.cfm?id=114.

In light of what emerged, we can consider the fundamental analysis like a random walk in which the analyst has some information still not incorporated in the current price. On the contrary, the technical analysts must prove that their price forecasting is statistically "better-than-chance prediction" (Fama, 1965). As one can notice, the border between the random walk theory and the other two theories is so thin that several authors tried to confute the random walk model, by presenting their price predicting mechanisms: for instance, Lo and MacKinlay (1988) rejected the random walk hypothesis for weekly stock market returns, by means of a simple volatility-based specification test, pointing out that the price evolution depends directly on the profit process associated with the underlying asset.

The random walk theory seems not really linked with short selling, and actually because of basing the price floats on randomness, it would reduce any form of investment, both the upward and the downward, to a bet. By contrast, it must be taken into account that the price is the expression of the market vision; on one side there are investors willing to sell, and on the other, someone willing to buy instead. The amount of people standing on the two sides determines the price. Saying that *prices form randomly* equals saying that *investors have random feelings* about securities. However, since securities reflect the company value perceived by investors, such feelings do not seem to be that random, but rather they should follow, more or less rigorously, a certain path in investors' mind. Based on the literary information collected, it is still not clear how to conceive a possible relation between short selling and random walk. Hence, more insights on the topic will be looked for during the empirical phase.

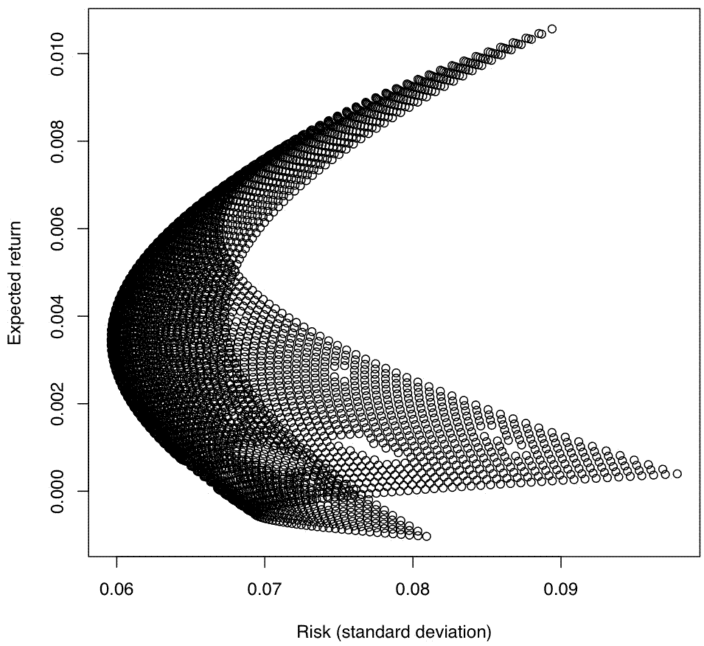
2.3 The Risk

The research on short selling cannot be exhaustive without information concerning the risk involved in such practice. This section is thereby organized in two parts: firstly very general information on the financial risk going together with any security will be presented and then the discussion will deepen aspects strictly related with short selling. The aim of this section is to present the relation between risk and short selling from a qualitative and descriptive perspective. Hence, no calculations on risk coefficients and the like are given.

2.3.1 The General Concept of Risk

The *risk* associated with a security is strictly connected with the generated *return*. The return has two components: the *expected return* and the *risky return*. The former is predicted by means of all the information already possessed by shareholders, while the latter is unexpected and affected by new information disclosures. The risky return, when positive, is the premium for investors taking a higher risk. Similarly, also two types of risk can be detected: *systematic* risk and *unsystematic* risk. The first one influences a large number of securities, even though differently, whereas the second one only a small group or a single asset. The systematic risk can be referred to also as *market risk*, meaning it involves a great amount of securities (Ross et al., 2008), even though there are proofs that it is also strongly characterized by randomness (Bos and Newbold, 1984).

Figure 4: Risk versus Return in Diversified Portfolios, the Investment Efficient Frontier.



Source: http://www.amstat.org/publications/jse/v16n3/christou_fig6.gif.

Miller (1977) showed that the risk of a security is also related to the *divergence* of opinions among investors. Hence, the more assorted are traders' expectation on a security, the more risky is the investment. In fact *assorted expectations* means that the value perception is not stable and hence the price can have greater floats.

In order to reduce the risk, nowadays investors use to combine different securities and different financial instruments to build complex portfolios. This kind of strategy is called *diversification*. In this procedure they can involve either long and short positions. Diversification allows investors to achieve higher returns, on equal risks, by moving on the *portfolio efficient frontier* (Figure 2.2). Hence, with respect to the general risk associated with securities, short selling is an instrument to reduce the overall risk of the portfolio.

2.3.2 Short Selling and Risk

After having introduced general concepts related to the risk pending on securities and more generally on the market, hereby the concept of risk related to short selling is deepened. However, very scarce information have been collected on this argument, so reasoning will be the main source for understanding the relation between risk and short selling.

Short Selling Evolution and Risk

As already observed in section 2.1, short selling has evolved from rare and clamorous cases (Staley, 1997) into an easy and fast financial operation (e.g. *intraday*). In the past, short sellers went against dominant trends, they took, so, a really high risk and they got accordingly high rewards. Nowadays, short selling is become a quite common practice and it gained a lot of popularity particularly among individual investors. The difference is due to the use of complex financial strategies. For instance, by using a combination of *derivatives* one can hedge the risk (i.e. the volatility) of an investment (Fok et al., 1997), even though, according to Guay and Kothari (2003), hedging is not one of the primary tools in the corporate risk management. Hence, short selling has been transformed from a highly speculative and risky operation, into a common betting on daily price fluctuations, frequently hedged by other financial positions (Guay, 1999; Petersen and Thiagarajan, 2000).

This trend is confirmed, for instance, by Warren Brashear, vice president and Memphis branch manager of Charles Schwab, that said, involving especially individual investors:

"*…in a bear market, many investors use short selling to sell high, then buy low. In a bull market, the process in reversed. In a market as volatile as it has been lately, some investors employ both strategies*"[33].

Thus, nowadays individual investors have more tools allowing them to hedge. The increasing awareness of the chance to reduce the risk made them more willing to invest even in *dangerous* short positions, than they were in the near past, exactly because the risk is to some extent offset. Such awareness resulted, therefore, in a higher trading frequency. However, the situation is not as homogeneous as it can appear, because while individual investors trade their shares quite frequently, the same does not hold for multinational assets. In this case in fact the biggest sets of shares are mostly held by large institutions that avoid so frequent trades. The current situation is therefore more assorted and this can cause more problems from the regulatory perspective.

Short Selling Indicators and Risk

Many investors use the short interest ratio to evaluate a stock purchasing. Hence, it is clear that from that figure they draw some indication regarding the risk going along with such investment. How? *Short interest* is the amount of shares short sold, divided by the total shares outstanding, otherwise said, it is the percentage of total shares outstanding sold short and still not covered. The short interest is not a completely indicative figure: for instance, if the 95% of shares are sold short, but the coverage is tomorrow, the situation is not dangerous. To have an idea about the risk taken by investors, that is actually related to the chance of price dropping, the *short interest ratio* needs to be introduced: it is the ratio between the short interest and the average daily trading volume. The figure means how long it will take, in days, by short sellers to cover their open positions, if the asset price starts rising[34].

But why does the short interest ratio constitute a measure of the risk taken by short sellers? A high short interest ratio – usually investors think that five is the break value over which the chance to have a bull market are pretty high – means that short sellers take a high risk: in fact, the higher the coverage period, the higher the loss in case of

[33] http://www.commercialappeal.com/news/2010/feb/27/selling-short-gains-popularity-as-stock-trading/.
[34] http://www.investopedia.com/articles/01/082201.asp.

bull market (*short squeeze*, § 2.1), and the higher the potential loss, the higher the risk underneath the operation.

Hence, when looking at short selling as a single financial operation, the *risk* taken by short sellers consists in losing money, caused by a rise in the price of the security short sold. In fact, very simply, if the price rises instead of falling, the short seller is forced to buy from the market at a higher price. An additional problem in this case, might be the *shortage of natural sellers* – previously explained – from whom to buy the security to cover the short position; such shortage could cause short sellers to stay *short* longer than wanted, increasing the loss, when the price keeps on rising.

Contract Failures

As mentioned in the first chapter, *fail to deliver* the security is a negative aspect related with the ethics of short selling, as it can possibly lead to swap favors and adopt collusive behaviors. From the risk perspective, fail to deliver can also happen involuntarily, which in the end makes the short sellers default. A sort of risk can hence be represented by *defaulting*, because is a personal feature that can be related to the seller and can affect his future *financial life*.

As previously explained, the description of the situation *risk-short selling* descends from a reasoning process, due to the scarcity of information traced. Therefore, more insights on the risk involved in the technique will be researched during the empirical phase.

2.4 The Ethical debate on Short Selling

A very deep debate is continuously kept open on the ethics of short selling. The concept is central because based on several of the criticism moved to short sellers in the past, while nowadays there are rules controlling and to some extent limiting the technique. Furthermore, such arguments are incident to the research, because many ethical insights deal with technical-practical aspects that have to be investigated according to the research objective.

In the first chapter a brief overview of ethical positions has already been presented. Hereby, issues are analyzed deeper, starting from the information presented before.

Within the next two sections, both the negative and the positive positions are presented; the purpose is to deepen ethical features related with the technical and economical ones rather than to reach a final judgment on the subject.

2.4.1 Positive Issues

One of the major and probably the most important positive aspect of the technique is to provide liquidity to the market (Woolridge and Dickinson, 1994; Angel and McCabe, 2009). Short sellers can offer a discounted price with respect to natural sellers, because of two main reasons:

1. Once the overvaluation is detected, the short position has to be acquired as soon as possible to profit as much as possible – provided the price drops;
2. When the seller is naked[35] the delivery is delayed and the buyer's position is therefore riskier.

By doing so, the bid-ask spread narrows down and transaction costs decrease, which provides liquidity to investors. Accordingly, Chordia et al. (2007) have linked the so called *post-earnings-announcement drift*, heavily affecting the market efficiency, with the liquidity level of the market. They found out the drift occurs especially in illiquid market and the main reason behind it is represented by transaction costs. The result is consistent with the findings above and it relates transaction costs and illiquid markets to the drift representing the inefficiency. That is why short selling, reducing transaction costs and providing in turn liquidity, helps improve the market efficiency.

Short selling is crucial also for another issue affecting financial markets. Derivatives are a financial instrument whose value depends on the *underlier*, usually an asset or an index. They are basically used to hedge the risk connected with the possible change in value of the underlying asset, even though sometimes they are also used to speculate[36]. The main problem in derivatives market is the lacking of regulation like, for instance, a *loss reserve requirement*[37]. The issue is very important in the evaluation of short

[35] The delay takes place also when the trader only locates the securities, without borrowing them, yet. In this case technically he is not naked, but likewise he cannot deliver the security.

[36] http://culturechange.org/cms/index.php?option=com_content&task=view&id=329&Itemid=1.

[37] http://www.mass.gov/?pageID=ocaterminal&L=7&L0=Home&L1=Business&L2=Banking+In

selling, seen that it helps keep the price of derivatives in line with the underlying assets, avoiding hence the possibility of arbitrage (Angel and McCabe, 2009). In such a case the support by short selling is determinant, because derivatives were born as a tool to spread the risk, but they are also used to speculate. Such scenario is made possible by the type of transaction involved, generally involving private entities and one-to-one contracts[38]. The advantage taken by short selling is driving the derivative price and the underlyer price to opposite directions and keeping constanly an alignment between the two of them. However, it is not only in the mere economic sphere that short selling carries advantages: in fact, all transactions today are based on price levels representing the point where the willingness to buy by part of the traders matches the inclination to sell by another part, consistently with the perfect competition theory (Nicholson and Snyder, 2008). The linkage in this case is represented by the price level: both sellers and investors are strongly affected on one side by the intrinsic value of what they own, and on the other side also by rumors, news and more generally by all the information turning around firms and companies. When the positive and negative information are known they are automatically incorporated in the current price. Particularly, when short selling causes price drops, it helps incorporate negative information (Bris et al., 2007) in the price and hence less informed investors, otherwise not aware of overpricing, benefit. Accordingly, Woolridge and Dickinson (1994) showed that short sellers do not profit to the detriment of the less-informed investors. To deepen the concept, Boehmer et al. (2010) investigated how differently positive and negative information are incorporated in the price: they refute the theory that positive information are more hardly comprised into the price (i.e. short selling is unbiased), but they showed that both types are unfortunately only slowly incorporated, which can have actually two opposite meanings: on the one hand, short selling does not carry that much advantage and, on the other hand, it does not affect the market that heavily.

2.4.2 Negative Issues

On the other side of the coin, negative aspects of the technique are standing. The ethical debate is very topical: there are authors thinking that short selling is ethically correct

dustry+Services&L3=Banking+Legal+Resources&L4=Laws+%26+Regulations&L5=Division +of+Banks+Regulatory+Bulletins&L6=Credit+Unions+Only&sid=Eoca&b=terminalcontent&f =dob_4_2-101&csid=E.

[38] http://www.nytimes.com/2010/03/05/opinion/05fri1.html?hp.

provided short sellers do not cause troubles (Irvine, 2002); there are several others thinking that everything involving speculation, at least to some extent, is not fair (Naughton and Naughton, 2000). The main criticisms moved to short sellers follow.

Information Spreading and Manipulative Short Selling

The most frequent critisism is the spread over other investors of false and deviant information by short sellers. The aim of such *bad news* is depressing voluntarily the price of securities short sold. The practice is illegal and, before that, uncorrect. However, it seems more a task for organisms in charge for controlling the veracity of information rather than the ones guaranteeing the correctness of short selling as financial tool. In fact, it may be easily objected that buying and spreading false *good news* is exaclty the same, but buying itself is not ethically debated conversely to short selling. Oppositely, it has to be taken into account the fastness in the communication flow playing in favour of uncorrect traders: indeed, before anyone can check the source of information, a lot is likely to have already occurred, without any chance to intervene in time. Consistenlty, Aiken et al. (1998) investigated on a intraday basis the reaction of the market to short sales, pointing out that the value of the analyzed securities realigns within fifteen minutes or twenty trades, which means information flow pretty fast. However, as professional short sellers are proved to be among the most informed investors in the financial landscape (Xu and Singal, 2005), misleading information are more likely to affect short sellers themselves rather than "weaker" (from the informational point of view) investors.

On one side, Miller (1977) says that a proper amount of well-informed investors avoids the existence of consistent quantity of undervalued securities, even though there can be overvalued securities due to badly-informed minority. On the other side, there are evidences that short sellers not only are more informed (Xu and Singal, 2005) but also they benefit from that information (Cohen et al., 2007). The situation therefore leads to a trade off between the benefit short sellers bring to the market, by building in the price the information they have[39], and the disadvantage coming from exploiting same

[39] When a trader shorts the security (no matter if due to speculative or hedging reasons) according to certain information, the short interest and the short interest ratio increase; as those indicators are disclosed also other investors become aware of that information indirectly and by means of those figures:

information for purposes crossing the border of market abuse, like, for instance, manipulative short selling[40]. Even though those purposes represent a heavy threat for the market efficiency, in its assumption of information parity, Xu and Singal (2005) found no evidence consistent with manipulative short selling. Hence, at least apparently, problems caused by insiders are limited to exploit their own information rather than to affect the market behavior.

Other than manipulating the price by means of information spreading, it is also possible to identify a *direct* manipulation, by means of short selling itself. In fact, traded quantities, when big enough, can affect or even make the market themselves. As, according to Chordia et al. (2008), liquidity enhances market efficiency and contributes to a better price-info incorporation and, hence, the higher is the informational efficiency, the lower must be the influencing power by other investors, the effect of traded quantities grows when the security is less liquid and when the total volume exchanged is smaller. Short sellers can therefore adopt collusive behaviors, in order to reach significant amounts and can use those together with false information to obtain a comprehensive effect. By contrast, according to the concept of market functioning previously stated, when a great amount of shares is shorted and the price is falling, short sellers with different expectations will rush and cover their short positions, which will make the security bounce back to higher levels (short squeeze). Based on such considerations a direct price manipulation seems hence hardly feasible, consistently with findings from Woolridge and Dickinson (1994).

Short Selling Risk: Gambling and Volatility

Economically thinking, another criticism concerns the risk connected to short selling. However, Angel and McCabe (2009) argued that every financial tool and every financial transaction involve a certain risk and short selling is mostly used to hedge risky positions rather than as simple speculative instrument. As a matter of fact, the higher risk makes short selling seem a sort of gambling, but both important differences

they don't know the information itself, but they know that the information caused an increase in short selling and that supposedly there is one more trader believing that the security price can drop.

[40] Manipulative short selling can be used to influence the price level. It belongs to market abuse behaviors, because purposely depressing the price can reduce investors' trust (psychological influence on other investors) and, so, the company capability to raise capital on the market.

and similarities though need to be underlined. First of all, gambling is just betting on odds, while short selling is based on investors' belief that the price will drop, implying thereby expectation of part of the market. Secondly, under certain conditions, gambling is allowed and so does the short selling, because financial products must be in accordance to strict requirements. Lastly there are cases of gamblers and speculators bringing also benefits, like, for instance, the case of market makers or several types of *futures*[41].

Still connected with the risk but more related to the market and particularly to its volatility, is the conviction that the more the shorting level, the more the market volatility. However, there is evidence proving it works exactly in the other way around (Bris et al., 2003, 2007) and, hence, the markets allowing short selling have in fact a lower volatility.

Hard-to-Borrow Stocks and the Fail-to-Deliver Option

Lastly, a sure point of interest needs to be mentioned, especially concerning the naked short selling, and a particular strategy that short sellers adopt in case the stock is *hard-to-borrow*. In fact, they simply fail to deliver the shares, because the fine to pay is cheaper than the borrowing fee. Boni (2006) investigated the delivery failures. A previous research by Evans et al. (2003) showed a very little number of "buy-in" (i.e. a buyer forcing the delivery by the short seller), meaning that also the "fail to receiver", namely the entity that does not receive, is not that interested in call the delivery because of several reasons presented. The findings in Boni's research are that the failure takes place strategically both at an individual level and at a corporate level. The former happens when investors and market makers find borrowing too expensive. The latter occurs when firms do not claim the buy-in, because they hope to exploit future counter-favors, especially when they also use to fail purposely. The reason behind mentioning such technique in this section regards therefore the base which the failure is conceived

[41] Market makers are basically speculators that bring liquidity to the market. They help investors trade quickly, always and at a reasonable price. The gain deriving from keeping the bid-ask spread on an even keel repays the risk plausible that the price can suddenly move away. Sometimes future contracts can carry out socially valuable functions: an investor (i.e. a gambler in this case) can buy wheat in advance at a price ensuring the farmer to cover his costs, which he might not be sure to realize. Of course the gambler hopes the price at that point will be higher, to profit from the transaction, but he also takes the risk that it will be lower and makes it possible for the farmer to grow it, which he probably would not do.

on. Indeed, swapping of private favors that to certain extent can also be agreed previously, might be considered unethical.

2.5 Conclusion

The chapter provided general and specific information about short selling. By starting from practical aspects, like the distinction between intraday and multiday short selling, or the broker requirements, also more deep information have been presented. For instance, it has been mentioned the type of securities mostly used, which will be deepened in the empirical part; it has been shown how short selling evolved along with the communication system and also specific constrains, like, for instance, the *buying power*. In turn, profitability laws have been identified, before going deeper in the relation between short selling and market efficiency, or short selling and the different types of financial analysis. Crucial concepts related to understand how to intend the short selling risk have been reported, by introducing also ratios that can help get the investors' point of view. In section 2.5 the most important issues related with the ethical debate on short selling have been underlined: on one side the positive effects taken by the practice, compared on the other to the negative ones. Strong evidences have been provided in favor and against both, though, except the fact that the naked short selling appears to be ethically harder to be accepted, the positions keep open.

PART II : EMPIRICAL DATA COLLECTION AND ANALYSIS

Chapter 3. Regulation Documents Review & Interview Methodology

Chapter 3 opens the empirical part with gathering qualitative data on the regulatory activity. Then, it also acts like linking chapter between the theoretical framework and interviews. In the first part it provides information on how the short selling regulatory activity is conceived from the organizational perspective (§ 3.1), while in the second part, the methodology applied in the interview phase is deeply explained (§ 3.2).

3.1 The Financial Authority Organizational Structure

By seeking information regarding the organizational conception of the financial authority, the first point detectable has been the lack of a *centralized organization*. In fact, as already mentioned in the first Chapter, each country has a different financial authority – several times more than one. This is based on the simple reason that each country has its own stock exchange, and beside its own legislative system. The legal aspect becomes substantial when public traded companies get money from other investors that must be somehow protected. Historically, it is well known that laws are the product of the history and culture of a country, hence, the differences between countries, or markets, or laws are not negligible and well-rooted in the different social realities.

The coexistence of economical and financial aspects, and legal ones, brings us to considerations. Financial authorities can be *governmental* or *non-governmental* organizations. However, no information have been found on the advantages and disadvantages of both the possibilities, neither on why to choose between the two structures; one guess that can be done is that governmental organizations have been set whereas the government was more powerful and/or more efficient, politically speaking. Besides, also no information have been found on how to regulate governmental interventions in financial issues, even though there are examples of such interventions[42].

As investigated previously the aims of financial authorities are well-assorted (Chapter 1). Having multiple tasks provides financial authorities with a comprehensive view of the many issues affecting the market, but at the same time there is also a *lack of specialization*. For instance, short selling is not specifically mentioned, within the general regulatory activity. By contrast, the lack of a centralized authority clashes with some directives emitted by the European Parliament that are supposed to become effective for the member countries.

With respect to the technical aspect, the overall general perception has been that the regulatory activity is very disorganized. The rules are too many, and too confusing. Some of them cannot be known unless one consults the relative directive(s) and several rules are applied only for certain securities or in certain conditions. Generally speaking, the regulatory activity lacks a well-defined plan, for instance with periodical disclosure, aiming at keeping the market up-to-date. The main way to cope with market abuses is the *empirical investigation*, carried out in case of fraud discoveries, or strange and complicated financial structures, or in case of contract failures or denunciations. Hereby, an example of confusing rules is provided:

- Directive 2003/6/EC of The European Parliament and of the Council of 28 January 2003, *on insider dealing and market manipulation (market abuse)*: it's a directive that defines basic concepts like *inside information*, *market manipulation*, *financial instrument*, *regulated market* (**already defined in the Directive 93/22/EEC**), and so on;
- Directive 2004/109/EC of the European Parliament and of the Council of 15 December 2004, *on the harmonization of* ***transparency*** *requirements in relation to information about issuers whose securities are admitted to trading on a regulated market and amending Directive 2001/34/EC*: this directive "establishes requirements in relation to the disclosure of periodic and ongoing information about issuers, whose securities are admitted to trading on a

[42] http://www.finanzalive.com/strumenti-finanziari/germania-vendite-scoperto-borse-crollo/.

regulated market". The main point is that *regulated market* is "**defined in Article 4(1), point 14, of Directive 2004/39/EC**".

The two directives refer to different directives for defining the same concept of *regulated market*. However, to judge how directives are issued and the decision making process underpinning the regulatory activity are way ahead the purpose of this thesis. The aim of this paragraph was to show that there is *anachronism between the difficulty in understanding even the basic rules of financial markets, and the fact that anyone can nowadays freely trade*, thanks to a huge amount of financial instruments, coming directly into investors' house via internet. Such anachronism makes both the regulatory activity more difficult, and investors' complying more complicated. Hence, during the interviews some questions will be aimed at investigating the current organizational aspects of short selling regulation, through the experts' perception.

3.2 Interviews Methodology

The second part of Chapter 3 deals with explaining deeply what methodology has been applied in the interview phase. In turn, a general description of *which* data gathering method has been used and *why* (§ 3.2.1), for achieving *what kind* of information (§ 3.2.2) concerning *which topics* (§ 3.2.3) and from *who* (§3.2.4), is provided. Then, the problems encountered will be enumerated and eventually the solutions that have been used (§3.2.5) and finally, a deepening paragraph about the *interview improving iterative process*, with the explanation on how it has been applied (§ 3.2.6), is presented

3.2.1 The Data Gathering Method: Semi-Structured Interviews

The data collection method chosen are the interviews because of the nature of the topic. Short selling is indeed quite rare among the majority of investors and is deployed mostly by professional intermediaries. The reasons for implying such data gathering instrument lie hence in the delicacy level that can possibly be touched by some questions. Several topics might belong to company strategies and be therefore too confidential.

Although structured interviews can be used as a qualitative research methodology (Kvale and Brinkmann, 2009), the type of interview employed is the semi-structured one. This kind of tool brings many advantages[43]:

1. a constructive interaction with the interviewee that is allowed to discuss with the interviewer, rather than merely answer the questions;
2. starting with more general questions about the topic to get more specific according to the answers;
3. getting acquainted with the interviewee to be able to obtain more confidential information (Lindlof and Taylor, 2002).

3.2.2 What Kind of Information to Gather?

As already mentioned in chapter 1, the type of information searched is the qualitative one, for three main reasons. The first two have already been treated in the research design: a quantitative analysis would have, on the one hand, the problem (1) to isolate the effect of short selling, because of loads of variables influencing the financial market and, on the other hand, the more constraining problem (2) of being too time consuming for a MSc thesis, like this. The third has been a confirmation from the literature study: according to findings on the concept of market efficiency (Figure 3) – lately much debated – (3) analyzing the effect of short selling on assumptions both supporting the ECM hypothesis, or going oppositely, could bring to unreliable results. For instance, under the assumption of market efficiency a quantitative analysis could lose validity if the recent happenings related to the last financial crisis – that charged many other doubts on the market efficiency and re-opened the theoretical discussion – brought to the development of a new asset pricing theory.

3.2.3 Interview Topics

The general orientation of the interviews is to obtain information that are difficult to find in the studies where financial markets, investment decisions, price trends and correlated arguments are faced with from a theoretical perspective. Understanding the dynamics underneath short selling, issues connected with borrowing securities, finding buyers or coping with trends, bring practical hang-ups that from an academic perspective are difficult to get. However, at the same time also some theoretical

[43] http://www.fao.org/docrep/x5307e/x5307e08.htm.

information will be asked for, in order to relate them with the literature study and eventually get some confirmation.

The main areas which are going to be touched are:

- *Market efficiency*: according to the theoretical findings about the general perception and financial bases of short selling, the question mark arisen concerns the coexistence of efficiency and short selling. The historical perception about short selling is negative, as fomented by clamorous bankruptcy episodes. Furthermore, short selling is a "bet" on a value loss that can possibly flow into speculative excesses, but one cannot forget that also a frenzy buying process can bring to the same effect (i.e. speculative bubble[44]). This negative perception has made short selling be retained a market inefficiency. By contrast, during the interviews it will be investigated if short selling can instead be included in a broader concept of efficiency considering practical market contingencies. Related to this topic also questions on technical and fundamental analyses will be asked for. The aim is fully understanding how short selling fits in the financial landscape;
- *Short selling methods*: the initial belief was the existence of a record of occurrences on different methods of short selling. However, the literature study gave birth to the feeling that the argument is quite controversial, as no mentions have been found on it. Thereby, a deepening process on this topic during the empirical phase is surely needed;
- *Regulatory activity*: according to the objective of the research, the topic is necessary to pinpoint the relation between short selling and regulations, short sellers and regulations, methods and regulations and to understand to what extent and how the regulatory activity has been so far intervening. Furthermore, it can define *if* and *where* there is room for improvements and which direction those improvements to regulatory activity must go to.

[44] http://www.investopedia.com/terms/s/speculativebubble.asp.

3.2.4 Interviewees' Choice

Targeting people to interview did not offer many choice opportunities. Short selling seemed from the very beginning a selective topic. Information regarding short sales and operative techniques implied, have always been limitedly-disclosed and unknown to the majority of investors, especially due to professional intermediaries taking care of such investments. Their presence is needed by the high risk of this trading for which an unaware trader can suffer great losses. Those reasons stay underneath the choice of *financial experts* as first subjects of the interviews.

If the preliminary interview list presented in the first chapter is taking into consideration it can possibly be observed that insurance and pension industries are not that far from the bank one. Hence, it has been chosen not to consider those categories as separate. In conclusion, the financial entities taken into consideration are:

1. Governments;
2. Financial Authorities;
3. Banks;
4. Hedge Funds.

In such way the chances to get different perspective and different insights on the topic are believed to be high enough.

3.2.5 Problems and Issues

The main problem encountered during the initial phase of the data gathering process has been to find people available and above all willing to participate and give their contribution. The principal feeling during the contact process has been, on the one hand, that short selling is a really specific and really selective topic within the financial universe and, on the other hand, that it is such a delicate argument. Its application as investment tool or, more generally, as financial operation belongs to the confidential sphere of the investment strategy, which is reluctantly disclosed, unless some sort of official confidentiality agreement has been stated. Actually, in the case of financial authorities, the willingness to take action in the research was thought to be higher, as they are supposed to aim at being transparent and cooperative.

In the shortage of time typical of a MSc thesis, this obstacle revealed being really tough, as competing with the loads of information coming out constantly from the academic world, since when short selling has been drawn close to the last financial crisis. The tradeoff between the time to spend for the interviews and the time to save for keeping the research up-to-date has been very challenging.

Finally, only three interviews will be performed. A positive aspect that must be underlined is that two out of the four categories mentioned in the previous paragraph will be covered (financial authorities and banks), while the third expert has been involved in the past in investment funds, not really classifiable as hedge funds, but very close to them. The only category that will not be touched is *Government*. However, the feeling is that this category is less acquainted with the topic, taken account that the controlling activity is in the hands of separate organizations, at least in the major financial markets.

The strategy that will be applied to make the effectiveness of such scarce number of interviews as high as possible is the strict combination of interviews with a grounded theory approach, in the way explained in the next section.

3.2.6 The "Interview Improving Iterative Process"

As explained in the research design, along with the interview phase, an *interview improving iterative process* will be applied in the following way: by starting from very general questions in the first interview, step by step the main concepts indicated in the answers will be taken as tenets to deepen the questions for the next expert. The series of general questions will allow the first interviewee to bring in the answers as many concepts as possible, both to include something that could possibly be missing and to contemporary define sort of borders limiting the research area. The reason for this was that also from the literature study came out that plenty of arguments are related with short selling and the possibility to lose some of the aspects is pretty much real; at the same time, leaving the first questions quite free will make the interviewee also free to bring only issues that he retained inherent with the topic, setting, hence, the boundaries. By this kind of approach the characteristic of interviewing to be a deepening tool for any subject will be taken to a very high level.

3.3 Conclusions

Concluding this chapter, a summary of features of the data gathering process is presented. The method use to collect data will be *semi-structured* interviews to get to know with the interviewee and to be allowed to ask for more confidential information. The typology of information to research will be *qualitative*, because of problems related to the validity of a quantitative analysis in such a debated period and because of time shortage. The topics to investigate are three: the market efficiency, short selling methods and the regulatory activity, according to the research objective, and the subjects to undertake to interviews are financial experts belonging to the four abovementioned category of financial institutions, according to reasons explained in section 3.2.4.

The main problems to face with are related to the confidentiality of information researched and, hence, to the willingness of people to provide those information. Finally the number of available interviewees is three. The strategy to provide for this scarcity has been found in improving to higher levels the effectiveness of the interviews, by combining also the abovementioned iterative improving process in the way explained in section 3.2.6. The results will be addressed, explained and elaborated in the next chapters.

Chapter 4. Interviews Summary and Empirical Results

Chapter 4 is the core of the empirical part of the research. It contains the thorough explanation on how the interviews have been conducted. The analysis of the results goes along with the interviews as several results are used like a ground which to build more specific questions upon. In turn, the all process is presented, because in each step valuable information have been collected. Besides, due to the large amount of insights an independent reflection section is reported for each of the interviews. At a first glance it might seem that some concepts have been repeated, however by seeing carefully, more details are always added. Purposely, the section has been organized as follows to show the sequential evolvement of the concepts and scenarios presented.

4.1 Interview I (Appendix 1)

The first interview involves an expert in micro-credential analysis of the Dutch National Bank, one of the two financial authorities operating in the Netherlands. The other organization is the AFM (Authority for Financial Markets).

4.1.1 Interview Outline

The first interview is the most general according to the reasons explained in chapter 3. Following the main arguments which the first expert has been asked for are listed.

Interviewee Introduction *(Q1)*

The first question is just an introductory one in which the interviewee presents himself.

Misleading Short Selling-Short Position *(Q2)*

In principle, the first doubt arisen from the literature study regards what goes under the definition of short selling. The dilemma has been presented and explained in § 2.1: on the one hand, short selling has been defined as selling something that is not owned and, because of that, in taking a short position; on the other hand it has also been stated that many alternative combinations of financial instruments can result in a short position, where the short sale itself can be just a part of the whole financial structure. Asking for giving a definition of short selling will help solve this misleading that might be crucial from the regulatory perspective, especially when they decide what financial operations are allowed and what not.

Short Selling and Disclosure Issues *(Q3)*

Then, is important to know which reasons are behind the lack of detailed disclosures about short selling and why, for instance, such technique jumped on the top of the agenda of all governmental organizations as the main or worsening cause in the last financial crisis. Demanding this will help understand if the lack of information among other investors might be the reason why such technique has always been seen in a negative light.

Short Selling and Risk *(Q4)*

Q4 is intended to improve the knowledge about the risk of short selling. The aim is to check for other forms of practical risk beside the financial risk already addressed in the literature study, that goes along with any form of investment. For instance, there can possibly be risk in finding securities to borrow in case of shortage of natural sellers, or in case of rush to cover.

Mispricing: the Short Selling Ground *(Q5, Q6)*

Investigating the reasons beneath short selling brought to analyze the relation existing between short selling and market efficiency. In theory, market efficiency assumptions are that prices reflect all the information available and all the market participants act according to a rational behavior. If all the information are already in the price and the whole market behave the same, all the investors will do, and will expect the others to do, the same. The question in this case is: is that true that in case of market efficiency there would not be price variation? Does the rational behavior imply always constant prices or even in an efficient market can the rational expectations of the market be bear? Beside the assumption of informational efficiency another and even more difficult assumption seems to be necessary: not only all the market has the same information, but also it has to be at the same time. Is this feasible? It must imply that all the participants, in the end individuals, use the same information channels and do the same things in order to be there when *every* new information is disclosed; practically speaking, they should live the same life, is it reasonable? Q5 and Q6 therefore ask for reasons leading to security mispricing; it has been left reasonably open on purpose to see whether the interviewee would have taken the informational inefficiency direction or rather the pricing inefficiency one[45].

Short Selling and Derivatives *(Q7)*

Q2 on the misleading short selling-short position goes along with another dilemma: what relation does exist between short selling and derivatives? As we learnt in the literature study, also financial operations involving derivatives can result in short positions. Hence, Q7 is aimed at defining if several derivatives are a sort of short selling themselves, or rather they usually join other forms of short selling for any reason.

Short Selling Methods *(Q8, Q9, Q10)*

According to the aim of the research, Q8 and Q9 in turn, were necessary for the *GRQi* and *SRQa* (Chapter 1), and striving for providing indication that are basically lacking after the literature study: in the latter, in fact, it does not seem to exist any record of occurrences on different possible methods of short selling, neither on how they affect the regulatory activity. The reason lies probably in the mistakable concepts of short selling and short position; that is why this will test from the expert's practical perspective, whether there can be "ways" of short selling or just "ways" of taking short positions. Q10 is then a control question.

Deepening the Market Efficiency *(Q11, Q12, Q13)*

Since now on, a sort of deepening process will be carried on. In fact, Q11 and 12 go back on the market efficiency topic, to explore what opinions the expert has on the three main theories around the financial market behavior: the random walk theory, that in the end tempts to provide an explanation of price floating under the assumption of market efficiency, the fundamental analysis and the technical analysis. The questions

[45] The mispricing can be due to two different reasons: pricing inefficiency or informational inefficiency. The informational inefficiency takes place when the information are not received or perceived in the same way by market participants. The pricing inefficiency lies instead in the back trip that information do when incorporated in demand and supply levels (after reaching the market), combine to form the price.

are left voluntarily open to give the interviewee the chance to bring into the answer the concepts he believes appropriate. Q13 is a sort of control question on the previous two.

Short Selling, Derivatives and Regulation *(Q14, Q15)*

The deepening process continues with re-investigating the relation between short selling and derivatives. In this particular case the focus is how regulatory organizations look at derivatives going along with short selling or short position, how they perceive them and how they adapt the regulation.

Regulation and Selling Entities *(Q16, Q17)*

Q16 will investigate the regulatory activity as such. The objective is to understand how the regulatory activity strikes short sellers and if there are specific rules to apply according to the entity involved. Knowing those aspects regarding the regulatory activity is helpful to detect the room available for regulation improvements. In turn, Q17 provides other suggestions for improvement, by exploring if any difference exists instead in the practical requirements set by brokers.

The Regulatory Activity Conceiving *(Q18, Q19)*

Q18 and Q19 deepen how the regulatory activity is organized and conceived with concern on relations among different regulatory bodies. Indications in this direction can stimulate the design of a regulatory network, for instance as basic idea of improvement.

Regulators Issues: Information Disclosure and Insiders *(Q20, Q21)*

According to findings in the literature study, the main issue related with short selling is the mispricing of securities caused by incorrect incorporation of information in the price. By contrast, several investors and market makers can have and even share privileged information to exploit. Several regulations aim at avoiding such private information could be used by anyone, especially because that would represent a threat to market efficiency. Asking for this helps understand how regulatory bodies already cope with those threats to supposedly take suggestion for further improvements in other cases.

Regulatory Activity and Banks (Q22)

Banks can also provide to investors services of short selling. In this case they also have to follow some rules. This question is intended to investigate if there can be different rules applied for different cases, based on the banks involved, as there has been evidence on some privileging behaviors adopted by some institute[46].

Regulation "ad personam" *(Q23, Q24)*

Deepening the issues concerning the regulatory activity brings to the concept of "regulation *ad personam*", namely individuals' regulation. According to information found out in the Dutch National Bank website[47], the regulatory activity strives also financial institutions for having a clean management. In this case the assessment ways and the compulsoriness of complying with such judgments are explored. Hence, Q23 and Q24 are strictly connected with the risk of exploiting inside information by fraudulent managers.

Final Assessment on Short Sellers' Activity *(Q25)*

Q25 deepens the knowledge about the tools short sellers use to discover the main mispricing and then act on them with their financial strategies. The question closes the interview and is related with the short sellers' activity at different levels: one is the use of particular types of financial analysis, useful to understand which strategies short sellers carry on and where those can be hit by regulation improvements; another level is the mispricing itself, in order to get if short sellers are able to cause directly the mispricing instead of only finding and exploiting it, by means of collusive behaviors. In the latter case improvements could hit the problem upstream, for instance by using the same analyses as short sellers do.

4.1.2 Results Summary

The results of the first interview are here summarized in Table 7. It has one row for each argument, which one or more questions can belong to. The complete interview text is provided in Appendix 1.

[46] http://www.finra.org/Newsroom/NewsReleases/2010/P121482
[47] www.dnb.nl.

Table 7: Interview I, Results.

Area[48]	Argument	Question(s)	Result
2	*Definition Misleading*	*Q2*	Short selling is any position that profits from the reduction in value of the assets involved.
1	*Popularity*	*Q3*	Short selling is well known as element of *traditional risk management*.
2	*Risk*	*Q4*	Generally short selling makes the risk management more problematic, while in case of *naked* short selling the financial risk is represented by *squeeze* situations.
1	*Mispricing*	*Q5, Q6*	The market is not really inefficient but several *irrational behaviors* can take place.
2	*Derivatives*	*Q7*	Several derivatives are a sort of short selling.
2	*Practical Methods*	*Q8, Q9, Q10*	Short selling methods are infinite, as the combinations of financial instruments resulting in a short position are infinite (short selling = short position).
1	*Financial Analyses*	*Q11, Q12, Q13*	Markets follow the random walk theory, although the fundamental research may make the random walk lose its validity. Prices are unpredictable unless one gets inside info.
3	*Derivatives & Regulations*	*Q14, Q15*	All the positions economically equivalent to taking a naked short position are under regulatory interventions.
3	*Entities & Regulations*	*Q16, Q17*	None remarkable difference according to the short selling entity from the regulatory perspective; possible differences in collateral requirements in favor of professional parties.
3	*Regulators Relations*	*Q18, Q19*	Close cooperation with the AFM[49] and parties from other countries. The two financial authorities in the Netherlands have complementary functions.
3	*Disclosure & Insiders*	*Q20, Q21*	Agreement on public disclosures and prohibition for employees to invest in financial institutions apart from particular index not allowed to enter the free trade.
3	*Banking*	*Q22*	None banking institute gets any privileged treatment.
3	*Regulation & People*	*Q23, Q24*	All the "decision making positions" are evaluated by a specialized department with respect to experience, track record and justice issues. Judgments are constraining.
1, 2, 3	*Techniques*	*Q25*	"The market can stay irrational longer than you can stay solvent" (explanation provided in the reflection § 4.2.3).

Area Legend:
1: Market Efficiency;
2: Short Selling Methods;
3: Regulation.

4.1.3 Analysis and Reflection

According to the answers provided and also to the information collected in the literature study the difference between short selling and short position is not completely clear, as stated in the *dilemma* presented in Section 2.1. The weakness point lies in the lacking of distinction between short selling *strategy* and short selling *transaction*, and *gross* position and *net* position, so that the concepts are mixed up. A short selling strategy can

48 According to the three main areas of investigation detected in § 3.4.
49 The AFM (*Autoriteit Financiële Markten*) is the other financial regulatory authority in the Netherlands, beside The Dutch National Bank.

be defined as a broader financial operation involving different transactions. The all operation ends up with a *gross short* position, while every single transaction involved represents a *net* position, that can be either long or short.

In figure 4.1 the two short selling transactions, namely *net short positions* (NSP), on security 1 and 3 are combined with three *net long positions* (NLP) on security 1, 2 and 3. The strategy final balance is *short* – which makes it a short selling strategy – because the whole value of short positions exceeds the whole value of long ones. However, other opinions to confirm the scenario drawn are needed, hence Q2 will be forwarded to the next expert.

Figure 5: Short Selling Strategy and Transactions.

Q3 has provided an indication on what short selling is used for: *traditional risk management*. In the next interview, so, other uses of short selling are going to be asked for. Furthermore, according to the expert the technique is really well known, even though the interviewee belongs to a financial authority and this can make the answer biased: by searching in the news and in the financial press, in fact, the technique is almost always let to professional intermediaries, exactly all its intimate aspects are not really well-known and sometimes even understood by the majority.

From Q4 it appears that different types of risk are involved in short selling. The financial risk to get squeezed in case of naked short position confirms what has been found in the literature study. It is not clear why this does not represent a risk in case of regular short selling as well; in fact also in the latter the seller can be in the condition to rush and cover if the price rises and there can possibly be shortage of natural sellers.

Investigating on the assumption of market efficiency brought a very important concept: the behavior of the market sometimes moves away from rationality, which instead is important to remind being one of the assumptions in the ECM theory. Further investigation in such direction can involve the dangerousness of short selling for the market and the role it plays within that, to understand better which benefits it takes, as they appear in some literature.

On the front of derivatives, their relation with short selling needs to be more investigated. To be more specific, the knowledge regarding their function has to be deepened and particularly if they can be considered a form of short selling themselves – at least several of them – and how they are used in broader short selling strategies.

Searching on the practical aspects of short selling has brought a controversial indication on the methods used in such technique. While in the literature no record of occurrences has been found, the expert says that the methods of short selling are *infinite*, with all the probability referring to an infinite number of possible *short selling strategy*. Further exploration in this sense will be asked for to the next experts.

The market efficiency concept is touched again in the question on the random walk theory. Apparently, the fundamental analysis seems to move against that, making it "*lose its validity*". The effects by financial analyses have to be better explored to understand where different analyses fit in the market functioning (Figure 2.1) and which implications for short selling they carry on. Mentioning the influence that inside information have on the market is another important insight moving toward the regulation topic, as investors might improve the price prediction getting so the *abnormal* returns explained in the literature study.

The regulation also has been investigated from the perspective of which relations it has with different elements of the financial system that can be related with short selling: in this case, with derivatives. The Dutch National Bank issued a regulation that considers illegal all the financial combinations economically equivalent to a naked short selling, thereby involving also derivatives. However, the use of derivatives needs to be better investigated especially when they are used along with other financial transactions to build up broader investment strategies. Asking for examples will fit this purpose.

The regulatory action does not make any distinction according to the entity involved in the transaction, whereas from a practical perspective, supposedly professional parties have more advantage in term of collateral requirements, confirming the statement that the practice is mostly performed by professionals. Further investigation is though required.

The financial regulation in the Netherlands, is carried out by two organizations: the Dutch National Bank and the AFM. They have different and complementary tasks and the fastness in communication flow helps them work jointly also with financial authorities from other EU countries. According to these information a network of organizations working together at least at the European level might be feasible.

Within the authority, security issues are guaranteed by agreements submitted by all the employees that are also prevented to invest in the free trade market, to avoid the exploitation of *privileged information*. Sort of misunderstanding happened in this case, as the intention was to ask about *insiders* within the public traded companies, while the interviewee intended insiders from the financial authorities. Further investigation in such direction, hence, is needed.

From the regulatory perspective, banking institutes are treated in the same way according to the European Treaty, even though practically speaking there may be leaks in the system: in fact, banking institutes and entities carrying on short selling are both professional parties among which information can spread faster and easier, and there can be shared interests, bringing to collusive actions. Obtaining more precise information regarding this topic is very complicated, because the involvement of European Laws and the strategic nature of some strategy make the argument sensitive.

The regulation also hits at the individual level. Managers and people at the decision making level are constantly monitored on their performances, relations with justice and behaviors. If they are retained inappropriate, institutions which they belong to are forced to send them away and are prevented to invest in the market. In this case the ideas brought by the interviewee are totally clear and they no longer need any further investigation.

The last question was intended to bring as many arguments as possible on the connection between market efficiency, short sellers' activity and regulation. The question stated that short sellers perform several analysis according to which they are able to discover mispricing and thus profit from it. In such way short sellers' strategies, market efficiency issues and possible targets for the regulatory organization are all touched. The aim was to better understand *which* short selling methods are used to exploit *which* market inefficiencies, if any, in order to make the regulatory organization take advantage from such information. Unfortunately, a misleading occurred and the interviewee referred the analysis to the company performing short selling instead of suffering short selling. The expert said that the analysis gives some solvency indications (most probably referred to a certain time during which they could stay short) that were overtaken by the market behavior, once again defined *irrational*. Such question will thus be carried on.

4.2 Interview II (Appendix 2)

The second interview involves a financial expert from an European bank. The bank is active in the short selling sector, therefore identities are held confidential.

4.2.1 Interview Outline

The second interview outline will be treated less in detail than the first for two main reasons:

1. There is no need to explain all the questions, because the first interview already indicated approximately the path to follow;
2. Several insights on the direction the second interview will take have already been presented in the first interview reflection (§ 4.2.3).

The survey starts with asking the expert for a definition of short selling (Q1) to confirm what has been previously stated concerning to the misleading *short selling-short position*. In turn, the short selling scopes will be investigated (Q2, Q3) based on the suggestion that *short selling is an element of traditional risk management*. Q4 is intended to understand the short selling evolution through time. The awareness of such financial technique probably increased, which means that different modalities or entities could had followed each other. Then, the relation with the market is investigated (Q5, Q6), with particular regards to negative aspects and the eventual positive role short selling plays there; in Q7 the interviewee will be asked for giving example of consequences that short selling brings on financial markets, in order to get tips for the next interviewing step.

The Press investigations have also brought to light particular situations involving short selling. Hence, for instance, the decision on May 2010 by the German government to forbid short selling will be submitted to the expert opinion (Q8), as related to the previous answer. Thereby, the discussion turns over market efficiency (Q9) and on the function of short selling from the market perspective (Q10). Question 11 pointed very clearly on the relation between speculation and market efficiency, to understand if and to what extent efficiency can coexist with short selling. Turning onto practical aspects and following the research objective, the different methods short selling involves will be asked for (Q12) and then the discussion will go through the regulatory activity, by investigating why such technique needs to be regulated (Q13) and how the regulatory activity works (Q14).

The most frequent form of regulation is the temporary prohibition of short selling, whose the reasons underneath need to be further explored (Q15, Q16). Q17 and Q18 ask for the confirmation that the decision making level in the regulatory activity focuses only on the short selling itself rather than the actors involved, while the following questions (Q19, Q20, Q21) aim at better investigating whether outflanking the rules is feasible and by means of which tools. Afterwards, the discussion, moved onto the risk related to short selling (Q22) and on practical aspects concerning both regular and naked short selling (Q23, Q24, Q25), in order to better get their differences.

The final part of the interview focuses on the suitability of financial analyses to short selling (Q26), on the broader concepts of mispricing and market efficiency (Q27, Q28) and on differences between the analysis performed by short sellers and the one carried out by other analysts (Q29, Q30). Subsequently, more explicit questions on the technical analysis and its role with respect to short selling (Q31, Q32) will be asked, and also an example of its involvement with short selling will be provided in Q33 to deeper investigate if there can be any relation, and in which sense, with the topic. The interview ends with the expert's opinion on the price predictability and the random walk theory (Q34).

4.2.2 Result Summary

The second interview results are hereby presented in Table 8. The interview text is provided in Appendix 2.

Table 8: Interview II, Results.

Area	Argument	Question(s)	Result
2	*Definition Misleading*	*Q1*	Short selling is selling not owned instruments to buy them later at a lower level.
1, 2	*Reasons*	*Q2, Q3*	Short selling serves to make money or hedge long positions (e.g. hedging bonds by selling futures, in case of interest rate rising).
2	*Evolution*	*Q4*	The hedge funds have probably increased the quantities short sold.
1	*Consequences*	*Q5, Q6, Q7*	Short selling may be dangerous, but it is an instrument in investors' hands to punish misleading companies. In case of low liquidity can accelerate the negative effect on the price.
1, 3	*Extraordinary Measures*	*Q8*	The sudden decision by Germany was a good decision, but it had to be applied to all markets.
1	*Efficiency Judgment*	*Q9*	"They say market are always efficient".
2	*Usage*	*Q10*	Lately short selling is more a speculation tool, but it forces companies to say the truth otherwise they are short sold.
1, 2	*Existence*	*Q11*	Short selling is just a way to trade instruments and in that way it is efficient.
2	*Practical Methods*	*Q12*	There is only one way to short sell: taking a short position.
3	*Regulation Need*	*Q13*	Short selling probably does not need regulation, as it is just a tool to translate a certain view on investments; and it is more for professional parties.
3	*Regulation Working*	*Q14, Q15, Q16*	Lately they stop short selling almost on a regular basis. They do it otherwise companies will be bankrupt.
3	*Entities & Regulations*	*Q17, Q18*	None remarkable difference according to the short selling entity: regulation focuses more on the technique itself.
2	*Regulation Outflanking*	*Q19, Q20, Q21*	Selling a call option or buying a put option give the same exposure, even though selling a call is much closer to short selling.
2	*Risk*	*Q22*	The risk is pure price risk: the trader has to pay, for instance, the bonds he is selling also when he can't deliver them.
2	*Naked Short Selling*	*Q23, Q24, Q25*	Short selling and naked short selling are the same, i.e. the trader does not have any collateral. Borrowing is always before, as the buyer may want the underlying delivered.
1	*Financial Analyses*	*Q26*	Fundamental analysis is more important for short selling.
1	*Mispricing &*	*Q27, Q28*	Some downward and upward exaggeration are always traded

	Psychology		away, until the right pricing is achieved. Mispricing is due to investors' psychology.
1, 2, 3	*Techniques*	*Q29, Q30*	There is no point of difference between short sellers and other analysts, because everybody has the same information at the same time. The evolution brings to higher efficiency.
1, 2	*Technical Analysis*	*Q31, Q32*	Technical analysis is only an extra tool in investors' hands beside fundamental analysis.
1, 2	*Analysis Usage*	*Q33*	Technical analysis is a good tool is you stick on its signals and you do not look at fundamentals at all and you are consistent with the signals.
1	*Random Walk*	*Q34*	Random walk theory is valid, no one knows where prices go.

Area Legend:
1: Market Efficiency;
2: Short Selling Methods;
3: Regulation.

4.2.3 Analysis and Reflection

The reflection and analysis of the second interview results will start from adding bricks to the landscape drawn after the first.

Misleading Short Selling-Short Position

In section 2.1, a dilemma regarding the short selling as transaction or strategy has been presented and linked in the first interview to a misleading between short selling and short position. Here other insights have been founded. In the first answer (Q1) the short position is not mentioned and short selling is a sale of something not owned that will be bought later at a lower level; by contrast, when the interviewee has been asked about the different ways of short selling (Q12), the answer has been: "*only one: taking a short position*". According to the scheme in Figure 5, those two answers are not contradicting each other. In fact, the definition in Q1 refers to what has been indicated as *short selling transaction*, without taking account of any broader investment strategy, while the answer in Q12 can indifferently be applied to both short selling transactions and strategy, no matter if the short position belongs to a single piece (*net short position*) or is the final balance of the entire strategy (*gross short position*).

Short Selling Reasons

The answers to Q2 and Q3 give more precise indications regarding the reasons beneath such technique. Q3 has been improvised to ask for specifying the answer provided in Q2: as a result, the expert gave an example concerning what he was talking about. The expert asserts there are mainly two causes:

- Hedging long positions;

- Make money.

The second reason is definitely vague, even though it can be brought back to the concept of speculation. To better define this aspect the question will be forwarded also to the next interviewee.

Evolution

Short selling evolution has been investigated to get what features changed and which could have taken more problems to the regulatory activity: for instance, the fastness in communication on one side has guaranteed a better informational efficiency of the market, but on the other also could have been determinant for someone to trade faster and take advantage from that. The finding is that lately there has been a rapid growth of hedge funds that could have increased the exchanged quantities as well (Q4), as they deploy investment strategies particularly aggressive. The concept to deepen in the next step regards which implications this brings at the regulatory level. Sort of evolution feature also resides in the answer to Q10: hereby, the interviewee states that lately short selling has become more a speculative tool. Moreover, he also underlines its role as instrument to judge the correctness of companies and he highlights *trust* as bidirectional relationship between companies and investors, which may be considered as foundation of an utopian market of fair prices.

Negative and Positive Consequences

In the answer to Q5, short selling is said to be dangerous but no examples are provided in that sense. On the contrary, it is also believed a useful instrument in investors' hands, to "*punish*" companies lying on their financials (the concept is narrowly connected with the abovementioned *trust*): companies that present or claim false information, for which they are consequently overvalued, do not deserve investors' trust and the market reacts by short selling their securities. Investors cause those companies troubles by means of the only tool they have: taking the price at a lower, apparently[50] fair, level; that from the company perspective constitutes a loss in value. This effect, according to the expert, is accelerated in case of low liquidity (Q7), even though he still considers short selling

[50] According to the negative aspects regarding short selling, taking down the price could also result in a decrease beyond the fair price, due to an overstated speculative activity.

part of the financial system (Q6) reflecting investors' feeling (Q13), which will be asked for, more precisely, to the next interviewee.

German Ban and Governance Implications

The answer to Q8 is very important for the research purpose. The decision by Germany to sudden forbid short selling is not completely shared. The reason is that doing so only for one market in a time in which investors can easily trade in other markets is meaningless. The point underlined by the expert is that regulatory authorities must act at once and be cooperative, by taking same decisions or at least the same behavioral line. The idea is to be confirmed by the next expert.

Market Efficiency, Investors' Psychology and Short Selling

Although short selling can possibly cause emotional exaggerations among investors (Q27) – which can bring to price drops beyond fair levels, very dangerous for companies involved – the interviewee does not exclude coexistence of short selling and efficiency, which a double concept of efficiency can be developed from:

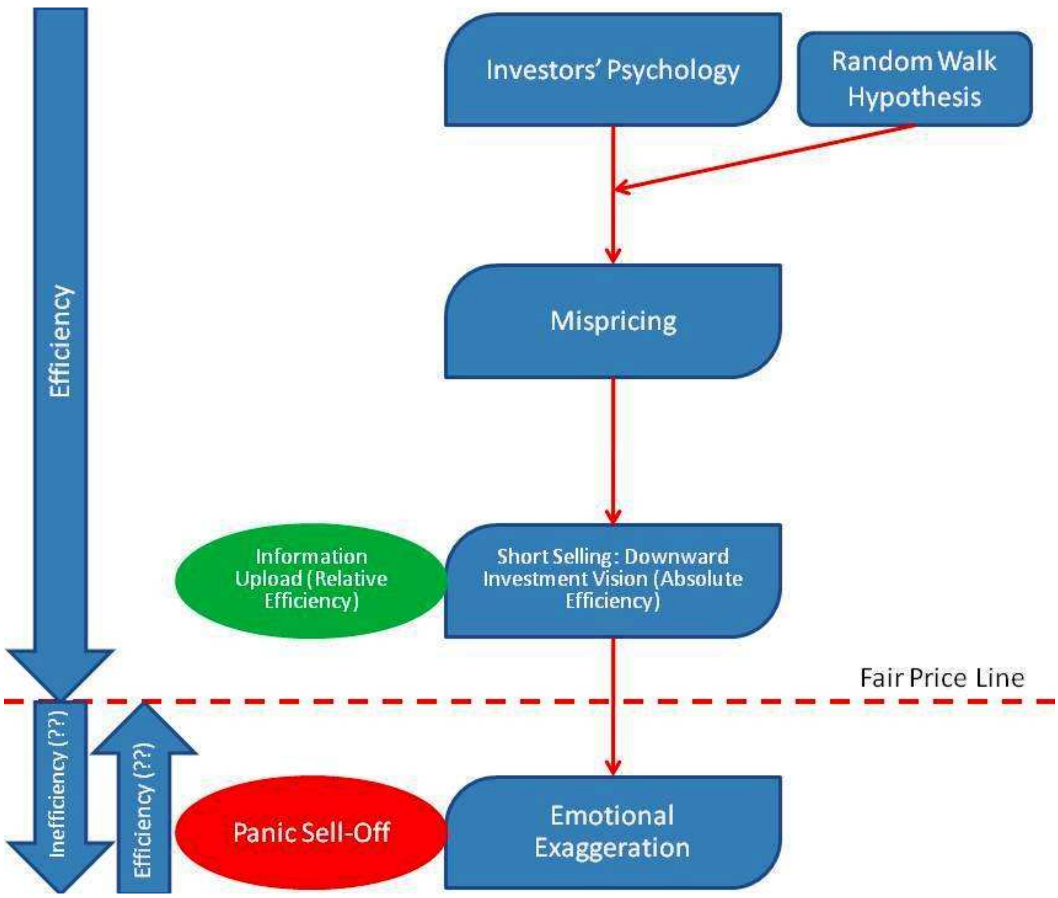
- *Absolute efficiency*: it is the short selling efficiency itself, that lies in being expression of a certain lawful investment vision by several market participants (i.e. the downward vision) (Q11);
- *Relative efficiency*: is the contribution to the global efficiency of the market, that lies in incorporating more information in the price, by means of short interest level disclosure – which other market participants become aware of.

The contribution to global efficiency finds reason to exist in the matter that, although *market are said to be efficient* (Q9), in reality one cannot be hundred-percent-sure about it (Q30), especially if taking account of happenings like financial crisis or heavy price falls. The lacking of mathematical certainty and investors' psychological bounces cause mispricing (Q28), which is also consistent with the *random walk* validity (Q34), to explain unpredictable price trends. Based on all the information collected on the ECM theory and from the first two interviews, a dilemma arises:

To what extent can emotional exaggerations be considered a form of inefficiency?

It is possible to design a scheme (Figure 6) relating investors' psychology, security mispricing and short selling. The elaboration presents also the overall market efficiency level and the positioning of the random walk hypothesis. The two abovementioned concepts of *absolute efficiency* and *relative efficiency* are schematically explained and the emotional exaggeration is explained.

Figure 6: The Relationship Investors' Psychology – Mispricing – Short Selling.



If it is supposed that an *overvaluation* due to investors' psychology is followed by a higher level of short selling, the information brought by the higher short interest will be incorporated into the price (*relative efficiency*). In such a case it is possible to have two courses of actions:

1. *Normal Emotions*: other investors become aware of new information and sell regularly until the security achieve its fair price;

2. *Abnormal Emotions*: the so-called *panic sell-off*, during which investors rush to sell and the price goes down through the fair price.

The second course of action is not a form inefficiency brought by short selling, but it is more related to investors' psychology, that instead should be *rational* and stop on the fair price. Moreover, there can also be some logistical reasons for going through the fair price (for instance, selling orders arriving late or miscommunication). Besides, the excess in the other direction will provoke an *undervaluation*, for which at a certain point there will be buyers able to redirect the price upward (Q27). Thus, in the end the mechanism involving short selling and excesses related with it is swinging around the fair price level and self-adjusting, which can be considered a *further form of efficiency*.

Regulation Reasons and Features

Q13 relates the concept of short selling to the necessity to take regulation along with it. The assertion by the expert is quite strong and his conviction is that because of being the reflection of some investors' perspective, the technique does not really need to be regulated, unless the technique leads to the psychological exaggerations mentioned in Q27. The regulation target in this case would not really be short selling itself but, more generally, behaviors flowing into market abuse. Some of them can be recognized in collusion, rumor spreading or more broadly in influencing the investment view of other market participants. Deepening information will be searched in the next empirical step.

Regarding regulations, the findings are that lately the ordinary prohibitions are applied almost on a regular basis (Q14). The underpinning principle detectable is that short selling is used like a *buffer*: it is allowed for a certain time to add on efficiency, but supposedly if it is not regulated at a certain point also its negative functions become to be exploited and here the financial authority reacts with the prohibition (Q15, Q16). By contrast, in case of extraordinary prohibitions, the main reason is to preserve the short sold companies from the risk of bankruptcy. Indeed, this risk can be very feasible when, as said, exaggerations cause the price to go down through the fair level, that is the level where the price reflects the underlying value.

The answers to Q17 and Q18 have confirmed the absence of particular rules applicable to different entities, while a clear indication has been provided again in Q13 on the main users of short selling; they have been identified in professional parties, which can be added as one reason why no distinction based on entities exists.

Short Selling and Naked Short Selling

Surprisingly, no distinction has been made between short selling and naked short selling (Q23, Q24, Q25), even though in the literature there is a pretty clear difference. However, when the investor's perspective is taken as point of view, the answer can in fact reflect the reality: the buyer may want to accept only a real time delivery, without giving the possibility to deliver the security later than the transaction is formalized. In this case, the short seller cannot be *naked*.

Financial Analyses and Short Selling

The second expert has confirmed what stated in the first interview. The most suitable tool for purposes of short selling is the fundamental analysis (Q26): it allows the short seller to base his downward investment view on solid foundations, like company financial misleading, troubles related to fraudulent management or inconsistent financial structure, or creative accounting. Regarding the technical analysis instead, there are contrasting answers (Q31, Q32, Q33). First the technical analysis is considered a good *extra-tool* to **go along with** the fundamental one, but then, its validity is identified in getting consistent with the signals it provides "*if you don't look at fundamentals at all*" – which means that technical analysis must be used **alone**. This contradiction gives the chance to investigate better in the next interview, whether or not the two types can go together and help each other.

Short Sellers' Activity

Likewise to the first expert, also the second expert believes that there is no difference between short sellers' activity and analysts' activity. However, he also takes into consideration the hypothesis that short sellers can have developed some model that helps identify trends and moments in which to place their investments. The interviewee underlined once again (Q29) that **officially** everybody has the same information and that is why the different *rate of success* cannot be related to exploiting privileged information.

4.3 Interview III (Appendix 3)

The last interview involves an Italian financial expert. He has been working with obligations in a Bank Institute for thirty years and afterwards he collaborated with CONSOB (the Italian financial authority). Currently he is professor at "Università Cattolica del Sacro Cuore" in Rome that makes he also well-acquainted with the security market.

4.3.1 Interview Outline

The interview will start with the presentation of the interviewee (Q1) to turn very soon in the core of the argument. As in the first two interviews, in the third Q2 asks for the definition of short selling as well, to confirm the insights collected and the suitability of the scheme presented in Figure 5. According to previous findings a more precise classification of short selling scopes will be asked for in Q3, to move then on the technical modalities to deploy such investment (Q4, Q5, Q6). As come up from the previous step, the opinion on the sudden German prohibition of short selling will be demanded in Q7; it will help understand how those kinds of measures are seen by experts, in terms of *governance*. Q8 is intended to investigate the evolution of short selling, to get confirmations on some indications previously obtained. Afterwards, the expert's opinion on the negative consequences on financial markets will be explored, in order to get more information to enclose in Figure 6. According to the principles of semi-structured interviews, Q10 comes up from one of the answers given before: it is about threat of rumors that short sellers could introduce in the market to influence other investors. In Q11 an example of negative consequence of short selling is provided to the interviewee to get his opinion on it and to investigate if that can be related also to other effects. The following question is about the effect of the technique on the market volatility, as the results founded in the literature (Angel and McCabe, 2009) apparently could have different meaning based on the perspective they are looked at; that is why a clarification in that sense is asked for. Likewise, also short sellers' power to voluntarily depress the price is investigated (Q13). In Q14 the technique feature of being *liquidity-provider* has been examined in order to move the discussion onto the relation between short selling and market efficiency (Q15), but also to understand to what extent financial markets are retained efficient independently from the financial tool under investigation (Q16).

Thereby, the relation *uses-evolution* of short selling is explored (Q17), to see if improvements in the regulatory activity can focus particularly on certain activities more than others. Then, Q18 looks for a confirmation on the coexistence of market efficiency and short selling. The next question (Q19) is intended to give again some indication regarding possible regulation improvements: it asks for practical aspects and especially about the assets most used in short selling, which can act as base of a selective process, exploitable by regulators. After having collected the doubt of the second expert about the real need for regulation (Appendix 2, Q13), the same question is also forwarded to the third expert, but making a distinction between *good short selling* and *bad short selling*, according to previous answers (Q20). The following Q21 aims at obtaining the assertion that both short selling market abuse and abuses linked to upward transactions are equally considered, because investors' psychology might be biased, differently from laws. In light of what emerged in the previous interview about the partial prohibition, in this case Q22 searches for other reasons, if any, to complete the scenario, while the next (Q23) regards regulatory distinction based on entities. Investigating regulation outflanking chances is one of the main objectives in the research, but meantime it is also a controversial argument because this kind of findings should be notified to regulators. If someone provides then examples, it can possibly be on the one hand that it is something new, or on the other hand that regulators do not consider such investment strategy as outflanking. In any case it is to be admitted that the interviewee could be not so comfortable in answering Q24 and Q25, hence the answers may be vague. Directly connected with those, Q26 is explicitly intended to examine how the regulatory activity can cope with outflanking. Q27, Q28 and Q29 investigate what are the risks associated with short selling: here, according to the information previously collected, the risk has been divided relatively to different perspectives. In Q30 the reasons beneath choosing short selling or naked short selling are explored, to possibly identify some criteria of distinction that might be useful for regulation improvements. Afterwards, the relation between fundamental and technical analysis (Q31), their effectiveness (Q32) and the techniques deployed (Q33) by short sellers are canvassed with the same modalities already applied in the first two interviews. The discussion ends with asking for the role of random walks with the financial market landscape, to better understand if and how the theory can fit in the scenario outlined in Figure 4.2.

4.3.2 Result Summary

This section summarizes the third interview results in Table 9. However, the expert has given loads of information that due to logistic reasons will not be enclosed in the table, which in that case could lose its visual and summarizing efficacy. The most important information not enclosed will be treated in the following reflection section (§ 4.3.3). The interview text is provided in Appendix 3.

Table 9: Interview III, Results.

Area	Argument	Question(s)	Result
2	*Definition Misleading*	*Q2*	Short selling is a downward financial operation that can exist both in a normal context and in a market abuse context; in the first case they bring a higher efficiency to the market, otherwise they are to be condemned.
1, 2	*Reasons*	*Q3*	The reasons behind short selling are three: speculative, arbitrage and hedging and those add efficiency to the market, for instance, by bridging price depressions and so on.
2	*Technical Modalities*	*Q4, Q5*	The most common is short selling with a hedging by means of derivatives. More difficult is to hedge the short position by means of borrowing, which is more frequent in over-the-counter (OTC) markets[51].
2	*Short Selling Strategy*	*Q6*	Short selling not always can hedge a long position, but also can be part of a broader strategy made by more transactions aiming at hiding the short position.
1, 3	*Extraordinary Measures*	*Q7*	According to the financial press the case of sudden prohibition of short selling in Germany was related to the fear that the downward wave could heavily hit some banks and insurance companies.
2	*Evolution*	*Q8*	No data to evaluate it.
1	*Dangerousness*	*Q9*	Short selling (limited to cases not going into market abuses) is not dangerous, as representative of a different appraisal of the security profitability, by some investors. Its dangerousness lies in the possibility of using it to operate market abuses like any other tool.
1, 2	*Rumors' Diffusion*	*Q10*	The threat of introducing rumors to drive the price down is real, like also the threat of investors following other investors for reasons unrelated to expectations repositioning.
2	*Price Drop Exaggeration*	*Q11*	It can happen to just follow the expectation of other short sellers, but along with a higher risk; price movements are not the key of success, which is more understanding the market expectations on the security.
1	*Market Volatility*	*Q12*	Short selling can increase the market volatility in the short run as concurring in creating abnormal behavior, while in the middle and long run it decreases the market volatility because it avoids downward expectations to take place at the same time.
2	*Voluntarily*	*Q13*	The effect depends on the security liquidity. The higher the

[51] Over-the-counter or more easily OTC market are decentralized market of securities that are not listed on an exchange. It is mostly done by transactions between two private parties that do not trade through regulated markets (http://www.investopedia.com/terms/o/over-the-countermarket.asp).

	Price Drop		outstanding, the less the chances to heavily affect it by means of short selling transactions or strategies.
1	*Market Liquidity*	*Q14*	Good forms of short selling (according also to CONSOB) add liquidity on the market (as increase the exchange) and reduce the market volatility. The more the trading, the more the repositioning, the more the information built into the price.
1	*Efficiency Improving*	*Q15*	Short selling helps to better identify the most correct price for the security.
1	*Market Efficiency*	*Q16*	Market are always efficient. What is inefficient is the investors' way of thinking. The right one is to understand what the expectation of the market will be on the security rather than his own expectation.
2	*Short Selling Evolution*	*Q17*	No elements to judge if speculative reasons overtake risk management ones, but today with derivatives the hedging tools are much more than before.
1, 3	*Coexistence Short Selling-Efficiency*	*Q18*	Markets are not efficient. Speculation and arbitrage exist in the continuous tending to efficiency by the market that is never achieved. Efficient market assumptions do not exist, that is why there is room of inefficiency for lawful speculative behaviors to live.
2	*Most Common Assets*	*Q19*	The most used along with hedging purposes are securities with higher outstanding. Short selling related to market abuse is more done on lower outstanding.
3	*Regulation Need*	*Q20, Q21*	Short selling needs to be regulated only in the forms that flow into market abuses. In the forms that represent only a repositioning of the profit expectation on the security it does not need any regulation. CONSOB does not want to forbid short selling unless it is related with market abuses. Investors' perception of short selling should not be linked to the downward feature of the transaction but only to possible market abuses related with short selling.
3	*Extraordinary Measures*	*Q22, Q23*	The short selling partial prohibition is often brought back to being negative, but actually it serves to protect the more jeopardized categories. Here the problem is the absence of an independent discipline and all the regulators take only temporary decisions while waiting for the creation of a higher authority. There should not be any distinction based on the entity, but maybe in all the bylaws there is something at the security level.
2, 3	*Regulation Outflanking*	*Q24, Q25*	It is possible to buy a call option and short the same security: the seller is not really short because he can always exercise the call and have the security. But if the call is not exercised then in the end the whole strategy is a short selling that could avoid regulations. The same might be built with futures, it only takes time to think about the financial tools to combine.
3	*Outflanking Controlling*	*Q26*	There is a double check point: the compliance function within the intermediaries' controls for the attendance of financial operations to regulation. Then, there is another check by authorities. If the same operation (like the one mentioned in Q24 and Q25) is repeated, the authority goes to investigate and could built some record of occurrences to block those strategies, when retained not complying.
2	*Risks*	*Q27, Q28, Q29*	The risk for the market is the *market abuse*. For individuals there is a *regulation risk* that can turn into a *chain risk* from seller to seller, unless the authority intervenes by providing the undelivered security. The chain risk can be really

			problematic for the market. On the security itself, the risk is *re-buying* at higher prices. Furthermore, a *liquidity risk* can also happen because when the seller does not deliver he is also not paid. However, those are border cases, the major risk related with short selling is the exploitation of privileged information that can influence the market and confute the assumption of informational efficiency.
2	*Short Selling and Naked*	*Q30*	Naked or regular short selling depends on the availability of securities. Professional short sellers always know where to trace a security. There can be quantity issues. The choice between the two types is by comparing transaction costs. With security borrowing is more profitable, while the *intraday*, even though almost for free, does not bring good results unless the trend is really good. Taking securities from other positions is very dangerous. Generally speaking, the comparison is between the lending costs and profit objective.
2	*Financial Analyses*	*Q31, Q32*	The security trend depends more on the profit expectation by investors then on the economic trend. Hence, short selling is more based on indications furnished by fundamental analysis then technical analysis.
1	*Mispricing*	*Q33*	Analysts and intermediaries (short sellers) work separately. Sometimes short sellers sell securities that are not suggested on sale by analysts because they have a different capability to stay on the market and to perceive tendencies. Furthermore, it is not possible to avoid short sellers talking to each other and adopting lightly collusive behaviors.
1	*Random Walks*	*Q34*	Prices are not casual. They reflect investors' expectations. A good trader has to get what the market expects to happen on the security. The capability to stay in the market must be untied from the own expectation and linked to perceiving what the market thinks. Rather than "prices are casual", in the end one can say that "the market behaves casually"; however, actually the market can be interpreted and understood, by being present and by exchanging information with other market participants.

Area Legend:
1: Market Efficiency;
2: Short Selling Methods;
3: Regulation.

4.3.3 Analysis and Reflection

This section provides the reflection on the third interview results. According to the amount of information gathered, the reflection will be addressed for each topic separately.

Short Selling Definition and Reasons

The misleading on the short selling definition here is added of information regarding the context in which the sale takes place: the financial operation is just defined as "downward", and the context of the *market abuse* is also mentioned. Hence, in the end the tool is considered like any other downward investment tool, meaning that the expert does not consider it a particular operation that must be treated differently from any other; the only indication in such sense is related with the possibility that the instrument is used with illegal aims. Figure 5 can thus be considered as a final concept defining short selling and the possibility to use it both as single transaction and as broader strategy.

The reasons for short selling have been clarified step by step in each interview. The final assessment states short selling is carried on for three main reasons:

- Speculation;
- Arbitrage;
- Hedging.

What stays questionable is which of these reasons belongs to the risk management area and which are merely profit instruments. A clearer distinction can help regulatory authorities give more cares to the more dangerous, especially when crossing the border of market abuse.

Short Selling-Naked Short Selling

The distinction between short selling and naked short selling needs also to be better clarified, as another misleading situation has been faced: in the literature the only distinction between the two types regards the borrowing and particularly whether it happens or not. By contrast, according to the second expert, there is no distinction at all, and according to the third there can possibly be different occurrences. The features therefore needed to construct a scenario of multiple situations are:

1. Presence/Absence of security loan;
2. The loan moment;
3. Presence/Absence of security "locate"[52].

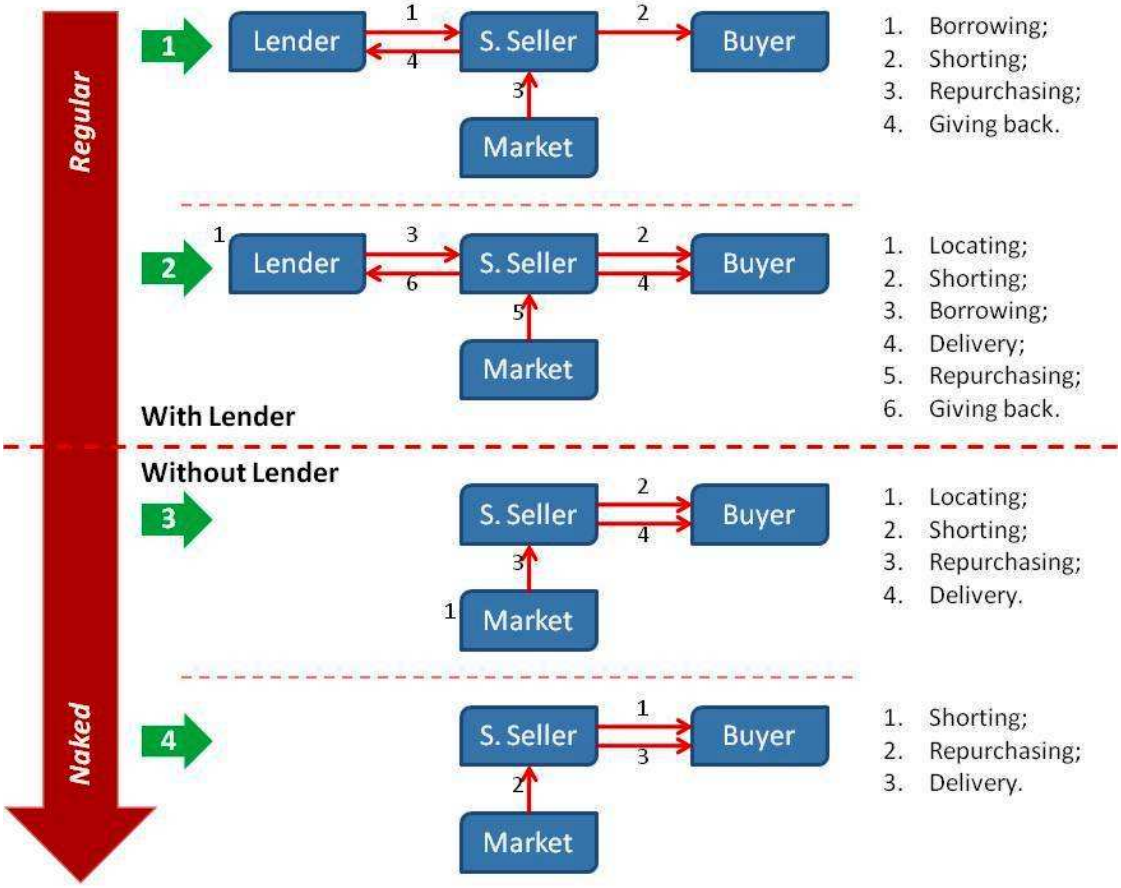
[52] "Locate" is one of the requirements contained in *Regulation SHO*. The "locate" requirement forces brokers to have reasonable beliefs that the security can be borrowed, while the "close-out" requirement imposes brokers to purchase and deliver an eventually failed-to-deliver short-sold security (http://financial-dictionary.thefreedictionary.com/Regulation+SHO).

Other considerations that must be done are as following:

- The borrowing can take place before or after the short sale;
- The locate can take place together with borrowing or not.

By combining these sort of constrains it is possible to identify four different scenarios, explained in Figure 7. The four scenarios are ordered from the classic one (*regular short selling*) to the most dangerous (*naked short selling*).

Figure 7: Short Selling and Naked Short Selling Models.



Scenario 1 is the classical definition of what has been previously defined *short selling transaction*. It involves a lender, the short sale, the repurchasing and the security

The *locate* requirement was mentioned by the last interviewee and important elements of such regulation have also been used later in the text. Therefore a review of Regulation SHO is presented in Appendix 4.

rendering. Purposely, the delivery is not mentioned because it happens at the same time of the short sale; introducing another passage would make the difference between scenario 1 and scenario 2 less visible at the first glance.

Scenario 4 is the riskiest and less likely to take place. It is the theoretical definition of *naked short selling* as it has been found in the literature study. According to the information gathered such scenario is hardly adopted because there is no risk coverage and there are no underlying securities. These features can easily turn the transaction into a failure, unless the trader has no doubt on the price dropping. Hence, such scenario is most likely going along with exploiting privileged information or with behaviors flowing into market abuse; that is why it is forbidden almost everywhere.

Scenario 2 and 3 are sort of hybrids due to the chance of locating securities instead of going directly with the loan (scenario 1) or with the sale (scenario 4). Each scenario is explained in the figure with the sequence of actions involved and indicated by the numbers. However, some explanation and improvements are to be added to the theoretical landscape drawn: in fact, the two hybrids (scenario 2 and 3) differ only in borrowing the security or not, after locating it. It could be easily observed than when the security is located, adding another transaction (the loan) will reduce the profit margin. This means that if the security is located scenario 2 is less likely to take place, provided the locate is guaranteed. The locate can happen by means of a *sale promise* or, more officially, by means of *other financial tools*. These tools can give the short seller the chance, at the same time, to hedge part of the risk in the transaction: for instance, buying a call (more explanation provided in the next paragraph) can fit this purpose.

The main principle underneath the choice between regular and naked short selling lies in the comparison between profit objective and lending fees. Conversely, the security availability does not represent a pitfall as "*…professional traders always know where to find securities*". On the one hand, naked short selling – when accepted by the counterpart[53]– is more expensive, as it exposes the buyer to a higher risk which he claims a higher reward for; on the other hand, being naked is so dangerous that it is

[53] According to the first interviewee, all positions equivalent to a naked short position are not allowed by the regulation, while it can happen that in OTC market several agreements directly held by private parties might fall in that category.

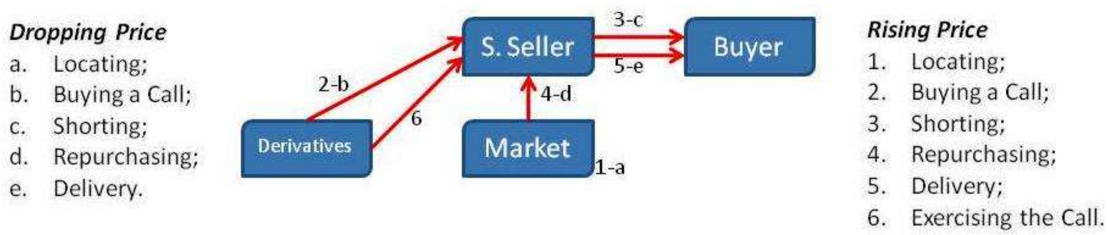
likely to be done only on heavy price falls, which are more profitable. Furthermore, the interviewee dreads the hypothesis that several cases of getting positions from unaware investors can possibly take place. The purpose is especially to avoid being naked, which is no longer allowed since the Regulation SHO (Appendix 4) was disclosed in 2005, to curb the potential for manipulative naked short selling (GAO-09-483, 2009).

Short Selling Hedging Function and Derivatives

According to Figure 7 and to the reasoning above, supposedly scenario 2 is not likely to happen, when the security is already located and the delivery is guaranteed, as in the same condition scenario 3 is more profitable. However, the warranty cannot only be a sale promise, but it must be supported by official agreements, because if the price of the security rises, the stock source could refuse to provide it.

Taking account of what stated first in the literature and then in the interviews – that *selling a call* or even *buying a put* is a form of short selling and so, oppositely, *buying a call* or *selling a put* can hedge short selling[54] – it is possible to draw a more up-to-date scheme involving two different courses of action. The scenario involves also issues emerged from the whole analysis, like *hedging* part of the risk, or using *other financial instruments* along with short selling to build up *broader strategies*, or having the warranty to be able to deliver the security, in order to avoid dangerous failures (Figure 8).

Figure 8: Short Selling Hedging Strategy.



The scenario provided in Figure 8 strives for multiple purposes. Firstly, it underlines the distinction between short selling *transaction* and *strategy*: if the derivative market is

[54] The case is referred to having shares as security traded.

not considered, it reduces to scenario 3 in Figure 7, representing a short selling *transaction*, while when derivatives are involved, the scenario turns out to be a *strategy*. Secondly, it contains the concept of short selling as transaction hedging other transactions to form a broader financial structure; hedging has been indeed mentioned as one of the aims related with short selling and hereby the purpose and its working is clear[55]. Thirdly, the final position concerns also regulatory issues: on the one hand, the seller is indeed short, while on the other hand, he is potentially covered by the call, which can always be exercised; regulatory authorities probably consider such strategy as complying with rules, because the seller has the chance to hold the security he sold. However, he does not need to call the security when the price drops, as it will be cheaper to buy the security back from the market than exercise the option, which makes the all strategy to certain extent profitable in both cases, according to the seller capability to stay on the market and make the right moves.

The call option does not dismiss the need for locating a natural seller. The latter in fact is necessary both in case of price rising and in case of price dropping. In the first (price rising), a natural seller helps the short seller save money. In the second (price dropping) he is needed as stock provider for the short sale delivery (position closure). An important condition is having the call exercise price as close as possible to the current price. In turn, the two cases of price rising and falling are described.

Rising Price. The rising price can be linked to two different situations:

1. *Trend reversal*: the price trend reverts and a bull market starts; supposed that the short seller is able to identify the reversal, his profit goes along with how soon the short position is covered and how much the security rises above the call exercise price.
2. *Dead cat bounce*: the security keeps its downward trend but a spot increase happens; the short seller can even add on the short position and his profit goes along with waiting for the price to drop after the bounce while the call option will not be exercised.

[55] Hedging reduces the risk associated with single transactions: in this case buying a call and short selling the same security are two opposite transactions: if there is a loss from the short sale (rising price), there is a profit from the call and vice versa.

Dropping Price. In case of price dropping short selling realizes its aim. The short seller will buy the security back at a cheaper price to deliver it and the call option will not be exercised.

Short Selling Profitability Equation Update. On the thorough scenario presented, it is also possible to improve some profitability equations presented in section 2.1. The nature of the call option forces to have two different scenarios according to the trend followed by the price:

1. *Downward trend*. The figures to be taken account of are the selling price (P_s) and the repurchasing price (P_r), the call option payment (C), the discount (D_s) on the short sale, and eventually some locating fees (L_s):

$$P_s - P_r > C + D_s + L_s$$

2. *Upward trend*. Conversely, in case of upward trend, the call option does not fall and other figures, as the option exercise price (P_e) and the current value of the security at the expiration date (V) need to be taken account of; the difference between the repurchasing price and the short selling price, goes now on the other side of the equation as it becomes a loss:

$$V - P_e > P_r - P_s + C + D_s + L_s$$

Making such operation as profitable as possible lies in short seller's capabilities to maximize the positive part and minimize the negative one.

Short Selling Regulation

The interviewee provided loads of insights regarding regulatory activities and issues. The temporary prohibition of short selling, occasionally taking place, is a protective tool in Authority's hands to prevent higher damages to companies. Besides professional parties, in fact, public traded companies involve small investors that are not usually *on the market*, like the first do. However, the decision process underneath the prohibition is still questionable and not clear. It is still not possible, indeed, to detect which downward repositioning are really due to changes in the security profitability appraisal and which are the ones occasionally linked with other information or with focused collusive behaviors adopted by clusters of traders.

The landscape is worsened by methodologies applied, whose an example has been described in the previous paragraph (Figure 8). Combining different financial instruments makes short selling regulation very complicated. It is possible however to make a general distinction, based on the information collected, between two main categories of rules violation: 1) there can be instruments *simulating* short positions, that can possibly be outside the regulating hand; 2) there can be instruments *going along with* short selling (which could be used to construct broader strategies), capable to disguise the real nature of the whole financial operation. Thereby, from the regulatory perspective, the first category constitutes a *substitution* problem, while the second is an *accompaniment* issue. Controlling is more difficult in the latter case, as traders' creativeness might always be able to build up new financial structures enlarging the record of occurrences. These strategies are investigated afterward to check their compliance with rules and hence before they are not really definable as violations.

The toughest challenge for the regulatory authority is the usual exploitation of OTC markets for short selling operations, mentioned by the interviewee. In their Economic Commentary of July 2009, Cherny K. and Craig B. R. say "*…derivatives are used by financial institutions and corporations to adjust their exposure to particular financial risks…*", to specify in the same document of July 2010 "*The lack of transparent reporting of trades and exposures leaves both regulators and investors uninformed about where risks are concentrated within the system. Without this information, regulators cannot monitor banks' exposure to particular risks, and investors cannot use market prices to discipline the unbalanced risk exposures of their peers*"[56]. Accordingly, the lacking of awareness about the OTC derivatives market functioning by regulators is also mentioned in the literature (Duffie et al., 2010; Scott, 2010).

The main pitfall related with short selling and underlined by the expert has been the lacking of a commonly spread ***discipline***. As an independent research area is still missing, regulators try to be as effective as possible by means of a double check point. The first is directly within the compliance function of brokers and banks allowing short selling: they check indeed for investors' requirements needed to carry on such trade; the second one is entrusted to the regulatory authority, which has the task to recheck the

[56] http://www.clevelandfed.org/research/commentary/2010/2010-6.cfm.

regularity of all investments. However, this double control does not exclude the need for establish a *specific research area/discipline* of short selling, as there are examples proving that might be not enough to ensure an overall correctness: on the 13th of May 2010 for instance, Deutsche Bank Security (New York) and National Financial Service (NFS, Boston) have been fined for "systemic short sale violation", by FINRA (Financial Industry Regulatory Authority); they were allowing *locate-free* short selling by some privileged investors, therefore not observing the latest regulations issued[57]. For the purpose, the pre-borrow requirements can be a feasible solution for avoiding such troubles (GAO-09-483, 2009). Other proposals tackling the aggressive investment strategies deployed by hedge funds have been also considered. Currently institutional investment managers are obliged to disclose short positions every quarter; the proposals under consideration are: reducing to one week such disclosure; making illegal to effect manipulative short selling of *any* security or instruct investors on having the right to refuse lending stocks for short selling purposes[58]. Consistently, the expert reported also the position held by CONSOB – the Italian regulatory authority – striving above all for *transparency* as main route to follow.

Economic Issues and Short Selling

Market Volatility. Surprisingly, the expert stated short selling increases market volatility only in the short run, whereas in the middle-long run that is lowered. The reason lies in the possibility, held by investors, to act according to their real profitability expectation. Short selling avoids investors' bad feelings to take place all at the same moment and hence to cause bigger price falls. In this sense short selling once again contributes to build in the price more information and more smoothly, adding efficiency to the market.

Security Liquidity. By comparing information provided in paragraph 2.4.1 with the ones from the expert, a distinction between two different liquidity concepts has to be made. In Section 2.4.1 liquidity is intended in its general meaning of cash in investors' hands,

[57] http://www.finra.org/Newsroom/NewsReleases/2010/P121482.

[58] http://www.tradersmagazine.com/issues/20_303/congress-short-sale-rules-105214-1.html?zkPrintable=true.

while the expert intended liquidity in its “*investing meaning*”[59], namely “*the ability to convert a stock portfolio in cash with little or no loss in value*”. Consistent with the latter concept, short selling is confirmed to add liquidity to the market, because it enhances exchanges and thus information circulation. In such way the price reflects more fairly the underlying value and the loss in value going along with the conversion decreases.

Moreover, manipulative short selling operations are more likely to happen on less liquid securities. Therefore, by increasing liquidity, short selling prevents its own negative feature of being manipulative on illiquid securities. The concept bears out the thesis, previously explained (§ 4.2.3), that short selling is a self-adjusting mechanism. Accordingly, it is possible to relate the market liquidity of a security to the shares outstanding mentioned by the expert. Indeed, the higher the share outstanding, the higher the capacity of converting a portfolio without loss. That is why *speculative short selling* is performed on less liquid securities, while *hedging short selling* opts for more liquid ones.

Market Efficiency and Financial Analyses

Diverse insights have been collected on the role short selling plays in financial markets. The main doubt concerns the possibility that a speculative tool exists in condition of efficiency. Generally speaking, the market is indeed considered efficient, but its own functioning is based on inefficiency. The countersense lies in the efficiency assumptions, as previously explained: if all investors behaved rationally, there would not be any exchange, but just a list of securities with a certain price reflecting exactly the underlying value. In fact, the need to trade securities is based on the different perception on the traded object, which can be considered a form of irrationality inside the investors. Therefore, it is possible to consider the market as efficient, and investors as inefficient.

The continuous trading represents an ongoing process of *efficiency researching*, characterized by different security appraisals, held by investors. Short selling exists exactly in the efficiency-seeking process, because it represents one of the market

[59] http://www.businessdictionary.com/definition/liquidity.html.

expectations, i.e. the negative expectation by security **non-holders**. When short selling is seen from this perspective, it is questionable whether or not to consider it lawful. In fact, in case of upward expectation, an investor buys shares only if he has money, otherwise he has to ask for a money-loan to be able to follow his investment view. If the price increases, he sells the shares and gives the money back, pocketing the profit (*margining*, § 2.1). In the end, short selling is based on the same principle: when the investor has a downward expectation, he can sell only when having shares; if not, he has to ask for a shares-loan and by contrast wait for the price to drop. The slight difference is that the money-loan takes place always before the transaction, while the stock lending can be also subsequent. If that is the case, the operation flows into being *naked short selling* and that is why regulators issued the "locate" and the "close-out" requirements[60]. As a result, the expert believes the current price to be the most efficient one, even if not fairly reflecting the underlying value, because it reflects investors' expectations on securities profitability, that is the principle which the market is based upon. Hence, short selling exists in this condition of market efficiency and inefficient investors, where inefficient means "having different profitability perspectives, expectations and behaving sometimes irrationally". Profitability appraisals and expectations are strictly related to company fundamentals, and so, consistently, short selling is based on fundamental analysis much more than on the technical one.

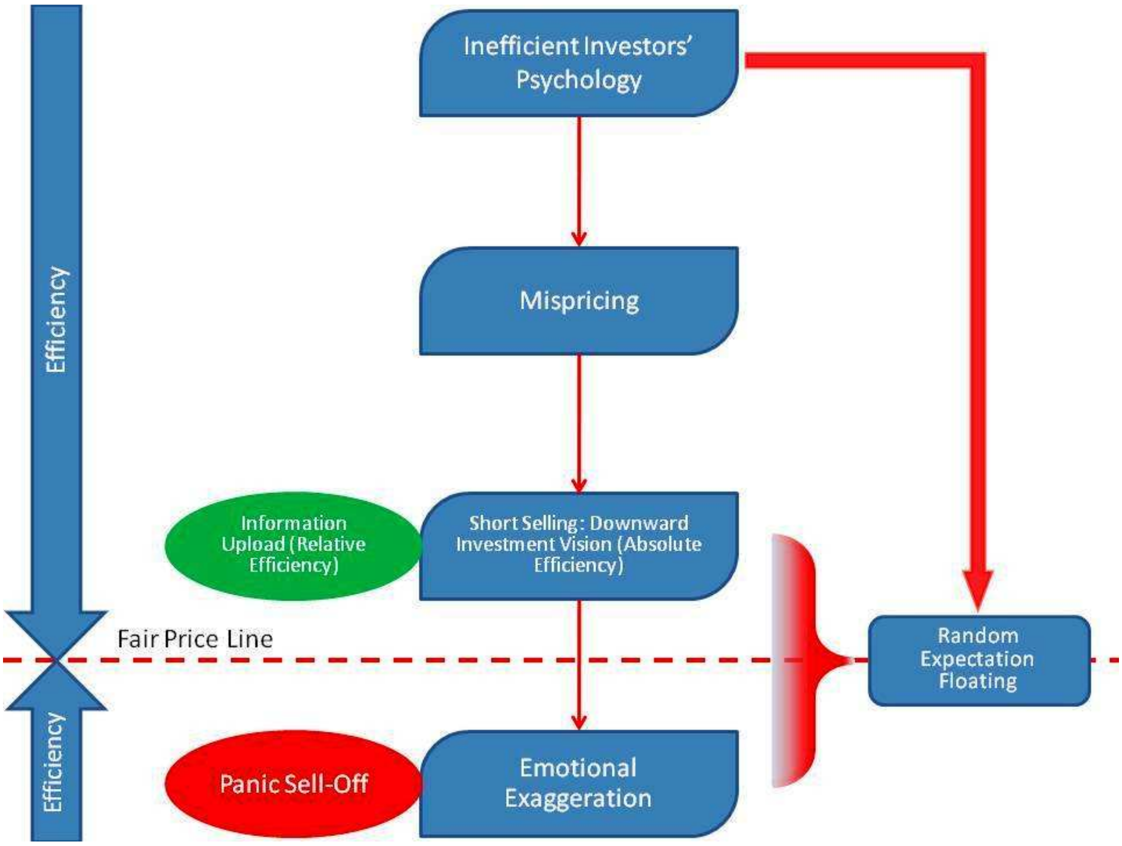
The financial analysis performed by short sellers is evidently the same performed by any other analyst, with the only difference that *short sellers have a different capability to stay on the market* and to perceive what the market wants. Understanding market trends allows them to anticipate the negative (downward) expectations of other investors. Unfortunately, sometimes this capability can flow into market abuses, like for instance when short sellers exchange information privately and adopt collusive behaviors.

In light of these findings it is possible to propose a slight adjustment for the theory of random walk. The expert asserts that *is not true that prices follow a random walk but*

[60] The "locate" must be made and documented before the short sale, clearly to avoid being naked, whereas the "close-out" states that in case of failure is the broker that must deliver the shares in place of the failing short seller (http://www.sec.gov/spotlight/keyregshoissues.htm).

rather the market expectations are random, underlining once again investors' irrational behavior – mentioned by the other two experts as well. The all situation matches perfectly with the scenario drawn in Figure 6 with some differences. The first is that the random walk hypothesis does not enter the flow at the investors' psychology level; it rather concretizes in the price floating process around the fair price line, as symptom of market efficiency reacting to investors' inefficiency.

Figure 9: Random Walk Revised.



The second is that investors' exaggerations are no longer indicated as inefficiency – as in Figure 6 – but as the *efficient reaction* by the market. Such exaggerations will be, in fact, subsequently counterbalanced by an undervaluation and, hence, by new upward investment perspectives that will re-drive the price up (Figure 9).

Short Selling Risk

Differently from the previous interviews, in the latter short selling risk has been analyzed according to different perspectives whose the insights are, in turn, presented.

Individual Risk. The risk narrowly connected with individuals is related with the transaction failure: when a trader short sells, he signs a contract which contains a postponed delivery[61]. In case of failure, the seller defaults and takes with him being unfulfilling, which can seriously affect his future trading. Furthermore, this risk can turn into a systemic risk if the buyer has already short sold as well to another investor and so on. The starting insolvency transfers up to each trader downstream and the individual risk becomes what the expert named "*chain risk*". This eventuality is though pretty low, thanks to the "close-out" requirement previously explained.

Economic Risk. It is the risk strictly connected with the security and shows up when the price rises after the short sale. The economic risk is actually the financial risk, which hedging strategies are intended to lower. This type of risk is also a low-impact risk, thanks to the many hedging strategies (Figure 8) investors can turn in practice, by means of all the financial instruments nowadays on the market.

Market Risk. The market risk is the more general one and the highest-impact one at the same time. According to its nature it concerns a multitude of investors and it is dangerous for the regular functioning of the market itself. The market risk is connected with the use by a privileged few of undisclosed information and it flows therefore into market abuses. However, two different degrees of damage can be identified: the lower one consists in (collusive) short sellers exploiting those information only to gain abnormal returns; the higher one consists in (collusive) short sellers voluntarily influencing other investors to cause problems and to damage a certain company or industry – that is named *manipulative short selling* and it is the main task which regulatory authorities face with.

Concluding, it is possible thus to classify three different types of risk: the economic risk, partially reduced by the short seller's ability to construct *ad hoc* hedging strategies; the individual risk that can possibly turn into being systemic (the *chain risk*), tackled by the close-out rule; and finally, the market risk which is the main target of

[61] Currently the delivery is fixed at a maximum of T+3 days, where T is the transaction moment. The Regulation SHO in its "close-out" requirement gives the possibility to the broker-dealer to close the position in place of the failing-to-deliver short seller within T+6 days. Proposal to reduce this time to T+4 days has been also presented.

financial authorities. The latter also has nothing different from any other behavior flowing into market abuse, and hence it is only secondarily related with short selling.

4.4 Conclusions

The empirical part carried out by interviewing three financial experts belonging to different types of organization, provided loads of information. Combining the application of the grounded theory approach and the usage of semi-structured and very focused and precise interviews has revealed to be a fruitful tool to overcome shortage of people willing to participate in such a survey. Indeed, initially it had been selected a sample of more than twenty organizations. The contact phase has been characterized by a high shortage of people available; in the end they refused to answer on such topic most probably due to the highly confidential information that could possibly be requested. However, despite the low rate of response the amount of insights collected is considerable and much more than expected.

All concepts defined especially in the last interview reflection paragraph (§ 4.3.3) are the final product of a reasoning process entwined with information collected in each empirical step. The findings will be addressed in the last chapter in order to provide answers to the specific research questions (SRQ) and, in turn, thorough answers also to the general ones (GRQ) to accomplish the research objective.

PART III : RESEARCH RESULTS

Chapter 5. Conclusions, Suggestions and Discussion

In this chapter all information collected both during the literature study and during the interviews, are redirected under each specific research question (SRQ) to provide in turn answers to the general ones (GRQ) and achieve the research objective. The chapter is conceived in two main parts corresponding to the two phases of the intervention cycle touched by this research: *diagnosis* and *design*. The product of the diagnosis phase are **conclusions** intended to improve knowledge on the problem. Thereafter the design phase will draw organizational suggestions helping improve the activity of financial authorities in light of what emerged during the diagnosis. The two phases will be treated in two different sections. Finally a discussion on the results is presented, to give some indications for further research and to explain the main weakness points in this research project.

5.1 Conclusions (*Diagnosis Phase*)

In section 5.1 the main products of the diagnosis phase, namely conclusions, are treated. They aim at answering the first general research question ***GRQi***:

What are the different methods and the technical-practical implications of short selling, the risk-market effects, and the current organization of short selling regulatory activity?

Many issues are contained in it and hence the better way to thoroughly address all of these issues is by answering separately each specific research question (*SRQ*).

5.1.1 SRQa*: What different ways of selling short do appear in the financial literature?*

From the very beginning identifying different ways of short selling put in practice by investors and professional sellers appeared to be a controversial issue. Indeed, none of the consulted literature sources had any record of occurrences regarding this topic. The picture was even complicated by a not really clear definition of short selling – often mixed up with *short position* or confused with *downward investment* (which is a more general concept that can be put in practice by means of short selling as well as other financial instruments). This was confirmed, by asking experts for giving a definition of the technique. Step by step, the information collected contributed to clarify two different meanings that needed to be discerned.

Thereby, in Figure 5 (p. 71) we defined the difference between short selling *transaction* and short selling *strategy*. It is possible hence to use this concept to answer *SRQa*:

*There is only **one type of short selling transaction** (single short position), consisting in just selling something that is not owned. On the contrary there are **infinite ways of building short selling strategies**, namely broader compounding of financial instruments resulting in a gross short position, because infinite are the combinations of investment tools currently on the market, which can be used to build a portfolio.*

Figure 10: Short Portfolio.

A strategy combining long and short positions is currently named *long/short equity strategy*[62]. The abovementioned short selling strategy is hence a ***long/short equity strategy in which the value of short positions exceeds the value of long ones***. Such a portfolio can be named *short portfolio* (Figure 10).

5.1.2 SRQb: What are the risks and the effects on financial markets, associated with short selling?

Short selling, both as financial transaction and as broader strategy, involves many entities in different ways. Some parties are involved *directly* in the transaction and/or in the strategies, like the seller, the broker, the buyer; several other parties are related in a *partially direct* way: investors purchasing from the direct buyer (secondary buyers);

[62] http://www.finanzaonline.com/education/hedge_fund/index.php.

finally there are also parties involved *indirectly*, as other investors just standing in the market, whose decisions are affected by the short selling level. Information collected to answer *SRQb* identify different types of risk associated with different actors. In Table 10 the detected *risk scenario* is presented along with the *curing/preventing measures*[63] applied by financial authorities. In the last column also an evaluation on how different risk typologies influence the market is reported.

Table 10: Short Selling Risk Scenario and Influence on Financial Markets.

Risk Type	***Target(s)***	***Involvement***	***Curing Method***	***Preventing Method***	***Influence***
Economic Financial	Short Seller	Direct	Negotiation Interruption	-	**LOW**
Individual (Contract Failure)	Short Seller	Direct	-	Locate	**LOW**
	Buyer		Close out		
	Broker		-		
	Secondary Buyer	Partially Direct	-	Close-out	
Market	Market	Indirect	Empirical Investigation		**HIGH**

Based on the information presented in section 4.4.3, the two types of risk having effects on the financial market are the *individual* risk and the *market* risk. The former has an effect because it is related with the short selling failure; such failure indeed can transfer from the short sellers to the first buyer – when he has short sold the security as well – and so on to next buyers. This process has been previously named *chain risk* and it involves many investors. The *market risk* instead can flow into market abuse, when short sales are purposely placed to influence other investors' risk perception.

The *individual/chain* risk has not much influence on the market. It is in fact a kind of risk very well-handled by the *locate* and *close-out* requirements. The locate acts as a preventing measure placed upstream the sale. The close-out is used both as *preventing* measure, when one takes the secondary buyers perspective as point of view, and as *curing* measure, when the directly-involved-actors' perspective is instead considered.

[63] *Preventing measures* are measures applied *a priori*, while *curing measures* are applied *a posteriori* to cure ongoing or occurred situations that have been able to escape the preventing ones.

Locate and close-out can interrupt the *fail-to-deliver chain* with the intervention of the broker that is forced to deliver the stock in short seller's place. The market can therefore easily absorb the individual/chain risk.

Much more attention has to be paid to the *market risk* that involves other investors *indirectly*. This kind of risk takes place when short selling is exploited to carry out price manipulations or to influence other investors' decision. There are no preventing rules able to tackle such behavior, as it is due to the personal free will. Financial authorities however perform an empirical investigation downstream, for cases that could have aimed at influencing the market. In any case, this manipulative behavior must not qualify short selling itself, both because any other financial instrument can be used with market abuse purposes, and because, when regularly used, short selling brings many advantages to the market in terms of efficiency and information.

5.1.3 SRQc: How is the short selling regulatory activity organized?

The regulatory activity carried out by financial authorities is not totally focused on short selling itself. Such activity deals with the wider category of market abuse, which short selling can flow into, like any other financial tool. Controlling is conceived with a *double check point*: the first is exercised before the transaction by the broker itself, that must guarantee its customers to comply with rules and requirements; the appropriate Authority performs then a second check point in cases of contract failures or disputes, by means of *empirical investigation*, confirmed by the last expert.

Accordingly, although the technique has already proven its danger and to be controversial and not easily understandable in all its facets by the majority of market participants, **the system lacks a research area specifically dedicated to short selling**. In the end, the absence of a unified financial market does not allow uniformity of rules and to set a unique financial Authority. Regulatory organizations in fact persist separately and they exchange information "if necessary", as reported by the first interviewee. Hence, they exchange information but they do not really act together.

From the rules perspective, it has been really difficult to find information on the requirements, the deadlines and the like investors have to comply with. The issues are too many and too different for each organization and each market, thereby not all the market participants are completely aware of what is around them.

Summarizing, it is possible to list the main features characterizing the current regulatory activity to provide a comprehensive landscape useful to define where improvements might be more useful:

- Different financial authorities for each market/country exchanging information <u>when needed</u>;
- Broader discipline regarding <u>every form</u> of market abuse, short selling comprised;
- <u>First compliance</u> function operated by the brokers: investors cannot sell short if they do not comply with certain requirements, like for instance the *locate*;
- Second control done directly by the Authority by means of <u>empirical investigation</u>;
- <u>Occasional</u> and not coordinated intervention in case of dangerous situations likely to heavily affect companies and indirectly minor investors;
- <u>Occasional</u> issues for updating rules and requirements, continuously facing problems caused by <u>new occurrences</u>, often brought to light by market participants themselves during discussions and instances presented to the Authority.

5.1.4 <u>SRQd</u>: Are there ways of selling short to move around regulations?

Financial strategies trying to bypass regulations are the main challenge faced by every financial authority. The use of different financial tools combined with different entities acting both in the regulated market and in the OTC market, makes to avoid bypassing very complicated. As stated in the previous paragraph, there are two different types of measures applied by regulators to cope with operations, threatening the market correctness: preventing measures applied *a priori* and curing measures carried out *a posteriori*. Likewise, during the research two different types of rule bypassing have been identified:

1. ***Substitution/Simulation***: it happens when an investor uses a *short portfolio* (Figure 10, p. 102), that might not be detected by the proper authority. Several

times short portfolios involve operations carried out partially in the regulated market and partially in the OTC market – as confirmed by the last expert – so in the end to draw the complete portfolio strategy is very tough. According to the first expert, "*all forms of positions that are economically equivalent to taking a **direct naked** short position*" are objective of the Authority intervention. Based on this sentence some questions can be drafted very soon: a) What does the term "direct" mean? b) Does it refer to a *short selling transaction* or also to a *short selling strategy* (short portfolio)? c) According to the definition provided in Section 5.1.1, what kind of position is a *short portfolio*, direct, or indirect? d) And, provided the short portfolio is considered an *indirect position*, does it comply with rules? e) And, if conversely it is said to be instead a *direct position*, does it bypass the rules? These questions not only provide an example of the many issues regulators cope with, but also they are example of why short selling needs to be studied carefully;

2. ***Accompaniment***: it takes place if a trader uses financial tools along with short selling transaction(s) with the purpose to disguise being short or naked. A valuable example of accompaniment strategy is the hedging provided in Figure 8 (p. 91).

In both cases the challenge for financial authorities is to prevent and/or sometimes even to understand investors' **creativity**. Thereby, the answer to *SRQd* can be summarized as follows:

*There are **two** different **categories** of bypassing: short selling **substitution** and short selling **accompaniment**. The former consists in a combinations of financial tools that, **without involving short selling transactions**, results in a short final position, non-detectable by the authority. The accompaniment is instead a combination of **financial tools and short selling transaction(s)**, to disguise the resulting short position. Unfortunately, it is not possible to give a comprehensive record of occurrences of bypassing strategies, because building short portfolios can be done in **infinite ways** and it depends only on **investors' creativity**.*

5.2 Conclusions Summary

By starting from a very general definition of short selling a clear distinction between short selling *transaction* and *strategy* has been defined: *a short selling transaction is a* ***single financial operation*** *having the seller* **short** *on the security*; *a short selling strategy is a* ***mix of operations****, in which the value of the short positions exceeds the value of the long ones*. To underline that a short selling strategy can comprise different securities in addition to different financial tools, it has also been named *short portfolio* (Figure 10, p. 102). Accordingly, the dilemma concerning the different ways of short selling, arisen in section 2.1, is clarified: *the way to perform a short selling transaction is only* ***one***, namely selling something not owned; *the ways to build up a short selling strategy are* ***infinite*** and depending on the financial structure constructed by the trader.

Diverse types of risk, accompanying short selling operations, have also been distinguished. The *economic/financial risk*, strictly related with the seller and the security, has a very *low influence* on the market (Table 10), thanks to many hedging possibilities. The *individual risk*, mainly connected with contract failures, has been detected to be slightly more dangerous than the economic risk, as it can possibly involve many market participants and turn into what has been defined *chain risk* (§ 4.3.3). However, the requirements issued with *regulation SHO* in 2005 and updated in 2009, easily hold in check its effects and make it also have a *low-influence* on the market. Finally, the *market risk* shows up when short sellers' behavior influences other investors, not directly involved in the operation, or when privileged information are used. This type of risk has a *high influence*, because it belongs to the illegal sphere, rather than because it is related with short selling. Indeed, as such, the market risk is not more hazardous than any other financial instrument used with purposes of market abuse.

The regulatory activity is conceived approximately in the same way in each market/country. Some measures aim at *preventing* wrong behaviors and some other at *curing* ongoing situations. Authorities belonging to different realities use to *exchange information* if necessary and for non-complying episodes the *empirical investigation* is still the main instrument applied. Sure pitfalls are represented by the lack of a specific *short selling research area* – regulators mainly focus on the more general area of market abuse – the lack of a *case history* and *Authority intervention* that is just occasional and related to contingency, rather than planned and organized. For instance, with respect to short selling, the regulatory activity is based on *detecting new empirical occurrences*, which to build proper rules upon, rather than studying deeply the technique to obtain general guidelines.

Two different typologies of rules bypassing have been pinpointed: *substitution* and *accompaniment*. Providing more information on strategies outflanking rules has not been possible, because of the abovementioned functioning of the regulatory activity: in fact, as soon as *bypassing* financial structures are discovered, new rules are issued to avoid the case. What can be clearly stated, instead, is that *the main challenge for financial authorities is coping with investors' creativity in constructing more new combinations of instruments*. Besides, as underlined by the last expert, the lack of a unified organization, controlling over the single markets allows investors to bypass rules also by trading in different markets at the same time, and hence by exploiting the different rules that are in force.

5.3 General Suggestions for Financial Authorities (*Design Phase*)

Following the diagnosis phase during which various problems are identified and deepened, the research path enters the design phase. During this phase general suggestions will be provide to help improve the regulatory activity, based on indications springing out from the previous phase. The core of section 5.3 is the second general research question (***GRQii***):

How can regulators improve their regulatory activity regarding short selling, taken account of the findings in ***GRQi?***

Likewise to ***GRQi***, also in this case the same methodology will be applied and the answers to the two specific research questions (*SRQe* and *SRQf*) are, in turn, given.

5.3.1 **SRQe***: What actions can regulators take in order to improve the regulation?*

The pitfalls pinpointed during the diagnosis phase provide the main directions toward which it is possible to give regulators several suggestions to improve their activity. The lacking of a specific research area for short selling makes authorities activity more difficult, due to the large amount of financial instruments that can possibly flow under the wider umbrella of *market abuse*. Hence, the first suggestion that can be drawn is:

Building an independent and specific ***research area for short selling****, that has to be separate from other cases of market abuse, taken account of the many, various and difficult-to-understand facets the technique has proven to have.*

In such a way, it will be possible to focus on all the aspects of short selling, like the contemporary use of different financial tools and different markets, the types of transactions involved, the results of different strategies applied by investors and so on.

Strictly connected with the lacking of independent discipline, the research also identified a lack of clarity on cases of short selling strategies not complying with the rules in force. The bylaws issued by the different authorities are too many and sometimes too old and/or subject to updating along with new discoveries and new cases. Furthermore, based on the information collected, short selling still does not seem to be treated with the proper care, with respect to its danger (when used for illegal purposes). The regulatory system gives the impression to lack rationality: for instance, a clear categorization or classification of cases and activities would be very helpful. Therefore, in order to improve the regulatory scenario from this perspective, it can be useful:

To draft a ***list of cases*** *involving short selling. A clear* ***categorization*** *would make easier the* ***consultation*** *for all traders and investors having doubts or willing to learn about short selling. Moreover, the regulatory activity should be better* ***planned*** *and* ***organized****: for instance,* ***periodical disclosures*** *can inform the market on eventual changes or updates of rules.*

Another problem encountered is represented by the lack of *decisional uniformity*. As observed, each market/country has different financial authorities – often more than one – exchanging information only when needed by the situation and just occasionally cooperating. That means not only different rules to be known and thoroughly understood by the market, but also that participating in different markets allows investors to take advantage from different rules applications. Hence, a valuable suggestion in this sense, would be:

Setting a single organization controlling over the main markets (at least), and possibly reducing the current authorities to branches of this central organization would be the proper countermeasure to the possibility by traders to use all the markets contemporary. This reorganization would guarantee the application of same rules in the same way and the new regulatory body would have same legal status and tasks as the current separate authorities.

According to one of the experts, the project is already under consideration at the European Union level, even though other important markets, like the US market and the major Asian markets, should be taken into account. However, two different solutions can be detected: 1) comprising all the authorities operating in each market; 2) building directly a unified market. The former solution would allow to keep separated different realities and, above all, different cultures belonging to different countries – that must be taken account of. The latter would instead represent the highest level of coordination. In any case both the solutions are a step forward, compared to the current situation.

Beside the organizational aspect, also technical improvements are possible. Surely helpful for the case is the clear distinction that has been made between short selling *transaction* and *strategies*. Nowadays, short selling is used particularly in aggressive investment strategies by *hedge funds*, whose managers are forced to communicate **quarterly** their short positions to the proper authority. In a fast trading reality as the current one, a period of three months seems anachronistic when the vast majority of transactions takes place daily and in a few minutes. Moreover, due to the plenty of ways to combine financial instruments and, hence, to build a *short portfolio*, it can be suggested:

To reduce the disclosure period, and to make it possible for the regulatory authority to know portfolio ***net positions****, in order to keep under control the entire strategies adopted by investors. The controlling organization will thereafter* ***disclose the gross positions*** *(Figure 10, p. 102) to the market as general warranty of* ***transparency****.*

In this way financial authorities would know how investors' strategies are constructed and they would check better the compliance of such strategies with the rules in force. Then, the information can be redirected to the market, to keep a certain level of transparency. However, as *net positions* would influence investors' perceptions, the suggestion is to disclose only the *gross position*, that is the final balance of investors' portfolios (Figure 10, p. 102).

5.3.2 <u>**SRQf**</u>*: **What does it prevent regulators to take the actions named in*** **SRQe** ***and how can discerned obstacles be overtaken?***

Answering to *SRQf* is subordinated to the suggestions provided in *SRQe*. Taken account that such suggestions have been drawn from reasoning on the pitfalls discovered in the regulatory activity, also the indications given in this section are based on the same logical process.

Historical information say that short selling is as old as the market itself, meaning that it has always been used. However, despite its "age", short selling is a practice that only lately came to lights, thanks to deeper studies on the topic and especially because it has been thought being the main worsening element in the last financial crisis. Moreover, in the sources consulted, short selling is believed a tricky and mysterious practice, profitable only if applied along with particular strategies and practiced mainly by professional traders jealously fostering their secrets. Therefore, building an independent research area for short selling has encountered obstacles with all probabilities *linked to the lack of studies and hence of deep information on short selling, both due to its many difficult facets, and due to the reluctance by short sellers to disclose their secrets and capabilities*.

The constitution of a *single controlling body* and consequently of a *unified cluster of rules* to be followed worldwide is difficult as building a *unified market*. In both cases, the main problem is represented by the different laws in force in each country. Even by restricting the case to the European Union, it can be observed that, despite common directives are issued, member countries still have the power to acknowledge such directives differently, when turning them into national laws. Thereby, if companies are obliged to comply with different rules, they cannot be judged or controlled on a shared basis; in fact, companies can be outlawed according to some rules, and enacted according to some others. In the sense of unifying rules and/or markets, the abovementioned separation of short selling from the more general universe of market abuse, would be a valuable step forward.

At a first glance, to communicate *portfolio net positions* to the financial authority and to disclose, then, the *gross positions* to the market, as explained in the previous paragraph, seems the most difficult improvement to apply, due to the current privacy laws. Conversely, by looking more carefully, *knowing the net positions would not really be a problem for the authority*, for two main reasons:

- It must be considered – as suggested by one expert – that financial authority employees have already a non-disclosure agreement to stick to;
- Financial authorities already use to handle sensitive information.

However, despite this confidentiality agreement, by means of which such information is retained, the chance that someone could collect successful strategies and/or information to exploit, is not negligible.

5.4 Suggestions Summary

Improving the knowledge regarding short selling methodologies, the risk accompanying such technique, and the current organizational level of financial authorities, served to define also the main weakness points in the regulatory activity, concerning short selling. Accordingly, in the second phase of this research, driven by specific research questions *e* and *f*, those defects have been seen as opportunities to hypothesize several improvements for the regulatory activity. Such improvements have been previously detailed (§ 5.3.1) and thereafter the obstacles to those meliorations have been treated (§ 5.3.2). Hereby, the findings of the whole design phase are summarized.

Building an *independent research area* of short selling on the one hand can help set the borders within which the proper authority has to intervene, and on the other hand might increase also the efficacy of the controlling activity. The obstacle encountered have been identified in the lack of studies on short selling, both due to its many difficult facets, and due to the reluctance by short sellers to disclose their secrets and capabilities.

The lack of knowledge concerning short selling has been making regulators' activity complicated and mostly based on *empirical investigations*. In fact, a valid improvement could be the *categorization* and *classification* of cases involving short selling, for consulting purposes both by financial authorities, and by normal investors and market participants. In such sense, *periodical disclosures* and a thorough *activity planning*, involving also, for instance, cases analysis seem to be feasible. In this case, the main obstacle is represented by the abovementioned *lack of specialization* on short selling, which can easily be overcome by constructing a specific research area, especially now that a considerable amount of information on the practice has been collected.

Also belonging to the organizational aspect, an upgrade might be represented by *unifying the rules* companies have to comply with or, even more arduous, by directly *unifying the main markets*. This would lead to having a single controlling authority, which would mean benefits in term of organization and coordination. However, to join together different laws and cultures from different countries would be a very tough task, which heavily affects the feasibility of such improvement.

Regarding the technical aspect of regulations, it has been pinpointed that the main direction regulators are striving for, is *transparency*, which surely helps in case of complicated strategies carried out to exploit regulation weaknesses. Likewise, it has been underlined that authority employees must stick to confidential agreements that prevent them to directly use, or to make others use, privileged information they possess. Hence, two courses of actions have been identified: 1) Traders might communicate their *net positions* to the Authority, which will redirect the *gross positions information* to the market; 2) The period of short positions disclosure for fund managers, currently set to three months, might be reduced. The first possibility seems to be feasible and much more improving than the second.

5.5 Discussion: Methodology Pitfalls and Future Improvements

This section deals with analyzing strength and weakness points of the analysis carried out, with particular referring to the methodology applied. At the same time also hints regarding the directions that further researches might possibly take, are provided.

The methodology followed during this research project has been explained in the first chapter. However, an evaluation of how it has fulfilled the purpose of the research needs to be performed. Beside the regular path followed by the vast majority of researches, involving a literature study and a data gathering phase, what is more interesting to evaluate are the performances of the *interview improving iterative process* used to overcome the shortage of people willing to give their contribution in the research.

Such process revealed being very appropriate for the purpose of getting in-depth information on the topic and this feature has been taken to maximum levels. In fact, based on the answers and information collected from each interviewee, new and more specific questions have been selected and forwarded to the next expert. In such a way it has been possible to deepen step by step what has already been previously found, in order to reach the core in each argument.

By contrast, several limitations need also to be mentioned. Despite a preliminary interview list comprising more than twenty cases accurately selected, the rate of response has been very low: only three interviews. However, despite the low figure, the quality and quantity of information collected have been much higher than it was expected. Improving the research process, hence, may be based either on rising the number of interviews, or on quantitatively analyzing company cases, for instance, to add some calculation on the risk, or on price levels and trends registered along with the short selling activity.

Accordingly, the generalization of findings can therefore suffer some limitations, even though the information collected are very up-to-date and come from very recent press sources spread worldwide. When keeping the same direction of this research project, a valuable step forward might be to submit and test the obtained findings with other experts, in order to confirm and to fix the concepts identified.

5.6 Conclusion

The discussion paragraph closes this research project. The research objective "*To help financial authorities improve the organizational aspects of short selling regulation, by analyzing the different methods to sell short and the technical and practical implications of those methods, by investigating the risk-market effects and the current organizational aspects, and by providing, according to the findings, organizational suggestions for financial authorities*" has been achieved by collecting literary and empirical information, aimed at answering the six specific research questions that have driven the research process.

Graphical outcomes have been elaborated and presented both in the interviews reflection parts and in the conclusive chapter, and several suggestions have been drawn to accomplish the design phase of the intervention cycle. In the last paragraph both advantages and disadvantages of the methodology applied have been presented, along with directions that might possibly represent a step forward, in researching about short selling.

Felice Tangari

References

Abeysekera, S. P. (2003). Efficient Market Hypothesis and Emerging Capital Markets in Sri Lanka: Evidence from the Colombo Stock Exchange – A Note. *Journal of Business, Finance & Accounting, 28 (1-2),* 249-261.

Aga, M., and Kokaman, B. (2008). Efficient Market Hypothesis and Emerging Capital Markets: Empirical Evidence from Istanbul Stock Exchange. *International Research Journal of Finance and Economics*, *13*, 131-143.

Aitken, M. J., Frino, A., McCorry, M. S., and Swan, P. L. (1998). Short Sales Are Almost Instantaneously Bad News: Evidence from the Australian Stock Exchange. *The Journal of Finance*, *53 (6)*, 2205-2223.

Alexander, G. J., Cheol, S. E., and Janakiramanan, S. (1988). International Listings and Stock Returns: Some Empirical Evidence. *Journal of Financial and Quantitative Analysis*, *23*, 135-151.

Andersen, J. V. (2005). Could short selling make financial markets tumble? *International Journal of Theoretical and Applied Finance*, *8 (4)*, 509-521.

Angel, J. J., and McCabe, D. M. (2009). The Business Ethics of Short Selling and Naked Short Selling. *Journal of Business Ethics*, *85*, 239-249.

Berkman, H., Koch, P. D., Tuttle, L. A., and Zhang, Y. (2009). Dispersion of Opinions, Limits to Arbitrage, and Overnight Returns. *Available at SSRN*: *http://ssrn.com/abstract=1214564*.

Boehmer, E., Huszar, Z. R., and Jordan B. D. (2010). The good news in short interest. *Journal of Financial Economics*, *96*, 80-97.

Boni, L. (2006). Strategic delivery failures in U.S. equity markets. *Journal of Financial Markets*, *9*, 1-26.

Bos, T., and Newbold, P. (1984). An Empirical Investigation of the Possibility of Stochastic Systematic Risk in the Market Model. *The Journal of Business*, *57 (1)*, **1**, 35-41.

Brav, A., and Heaton III, J. B. (2001). Competing Theories of Financial Anomalies. Eleventh Annual Utah Winter Conference. *Available at SSRN: http://ssrn.com/abstract=204330*.

Brent, A., Morse, D., and Stice, E. K. (1990). Short Interest: Explanations and Tests. *The Journal of Financial and Quantitative Analysis*, *25 (2)*, 273-289.

Brickley, J. A., and Schallheim, J. S. (1985). Lifting the Lid on Closed-End Investment Companies: A Case of Abnormal Returns. *Journal of Financial and Quantitative Analysis, 20*, 107-117.

Bris, A., Goetzmann, W. N., and Zhu, N. (2003). Short-Sales in Global Perspective. Yale ICF Working Paper No. 04-01. *Available at:* *http://ssrn.com/abstract=486264*.

Bris, A., Goetzmann, W. N., and Zhu, N. (2007). Efficiency and the Bear: Short Sales and Markets Around the World. *The Journal of Finance*, *62 (3)*, 1029-1079.

Bris, A., Goetzmann, W. N., and Zhu, N. (2007). E

Chordia, T., Goyal, A., Sadka, R., Sadka, G., and Shivakumar, L. (2007). Liquidity and the Post-Earnings-Announcement Drift. *AFA 2008 New Orleans Meeting Paper, available at SSRN: http://ssrn.com/abstract=972758*.

Chordia, T., Roll, R., and Subrahmanyam, A. (2008). Liquidity and Market Efficiency. *Journal of Financial Economics*, *87*, 249-268.

Christophe, S. E., Ferri, M. G., Angel, J. J. (2004). Short Selling prior to Earnings Announcements. *Journal of Finance*, *59 (4)*, 1845-1875.

Cohen, L., Diether, K. B., and Malloy, C. J. (2007). Supply and Demand Shift in the Shorting Market. *The Journal of Finance*, *62 (5)*, 2061-2094.

CONSOB (2009). Position Paper Consob in tema di Short Selling. *CONSOB*

Directive 2003/6/EC of the European Parliament and of the Council (28 January 2003), *on insider dealing and market manipulation (market abuse)*. *Official Journal of the European Union*, *96*, 16-25.

Directive 2004/109/EC of the European Parliament and of the Council (15 December 2004), *on the harmonization of transparency requirements in relation to information about issuers whose securities are admitted to trading on a regulated market and amending Directive 2001/34/EC*. *Official Journal of the European Union*, *390*, 38-57.

Duffie, D., Li, A., and Lubke, T. (2010). Policy Perspectives on OTC Derivatives Market Infrastructure. *Federal Reserve Bank of New York Staff Reports*, no. 424.

Evans, R. B., Geczy, C. C., Musto, D. K., and Reed, A. V. (2009). Failure is an option: Impediments to short selling and options prices. *The Review of Financial Studies*, *22 (5)*, 1955-1980.

Fama, E. F. (1965). Random walks in stock market prices. *Financial Analysts Journal*, *21 (5)*, 55-59.

Fama, E. F., Fisher, L., Jensen, M., and Roll, R. (1969). The Adjustment of Stock Prices to New Information, *International Economic Review*, *10 (1)*, 1-21.

Fama, E. F. (1970). Efficient Capital Markets: A Review of Theory and Empirical Work. *The Journal of Finance*, *25 (2)*, 383-417.

Firth, M. (1996). Dividend Changes, Abnormal Returns, and Intra-lndustry Firm Valuations. J*ournal of Financial and Quantitative Analysis*, *31*, 189-211.

Fok, R. C. W., Carroll, C., and Chiou, M. C. (1997). Determinants of corporate hedging and derivatives: A revisit. *Journal of Economics and Business*, *49 (6)*, 569-585.

GAO-09-483, (2009). Regulation SHO: Recent Actions Appear to Have Initially Reduced Failures to Deliver, but More Industry Guidance is Needed. *Report to Congressional Requesters by United States Government Accountability Office*.

Godfrey, M. D., Granger, C. W. J., and Morgenstern, O. (1964). The Random-Walk hypothesis of stock market behavior. *KYLOS*, *17 (1)*, 1-30.

Guay, W. R. (1999). The impact of derivatives on firm risk: An empirical examination of new derivative users. *Journal of Accounting and Economics*, *26*, 319-351.

Guay, W., and Kothari, S. P. (2003). How much do firms hedge with derivatives? *Journal of Financial Economicsi*, *70*, 423-461.

Hsu, P. H., Hsu, Y. C, and Kuan, C. M. (2010). Testing the Predictive Ability of Technical Analysis Using a New Stepwise Test without Data Snooping Bias. *Journal of Empirical Finance*, *17 (3)*, 471-484.

Hu, W. H. (2007). A Review of Literature and Application of Efficient Market Hypothesis in Horse Betting. *International Review of Business Research Papers*, *3 (4)*, 337-352.

Irvine, W. J. (2002). Ill-Wind Investing: The Ethics of Wishing. *Journal of Business Ethics*, *35*, 57-63.

Khan, A. M. (1986). Conformity with large speculators: A test of efficiency in the grain futures market. *Atlantic Economic Journal*, *14 (3)*, 51-55.

Kvale, S., and Brinkmann, S. (2009). InterViews, Learning the Craft of Qualitative Research Interviewing, *Second Edition*. SAGE Publication, Inc.

Lindlof, T. R., and Taylor, B. C. (2002). Qualitative Communication Research Methods (second edition). SAGE Publications, Thousand Oaks, CA.

Lo, A. W., and MacKinlay, A. C. (1988). Stock market prices do not follow random walks: Evidence from a simple specification test. *The Review of Financial Studies*, *1 (1)*, 41-66.

Lodhia, H. C. (2005). The Irrationality of Rational Expectations - An Exploration into Economic Fallacy. 1st Edition, *Warwick University Press*, UK.

Malkiel, B. G. (2003). The Efficient Market Hypothesis and Its Critics. *Working Paper No. 91*.

Marshall, B. R., Cahan, R. H., and Cahan, J. M. (2008). Does Intraday Technical Analysis in the U.S. Equity Market Have Value? *Journal of Empirical Finance*, *15 (2)*, 199-210.

Martin, P. Y., and Turner, B. A. (1986). Grounded Theory and Organizational Research. *The Journal of Applied Behavioral Science*, *22 (2)*, 141.

Menkhoff, L. (2010). The Use of Technical Analysis by Fund Managers: International Evidence. *Journal of Banking and Finance*, Article in Press.

Miller, E. M. (1977). Risk, Uncertainty, and Divergence of Opinion. *The Journal of Finance*, *32 (4)*, 1151-1168.

Naughton, S., and Naughton, T. (2000). Religion, Ethics and Stock Trading: The Case of an Islamic Equities Market. *Journal of Business Ethics 23*, 145-159.

Nicholson, W., and Snyder, C. (2008). Microeconomic Theory: Basic Principles and Extentions (10th edition). Thomson South-Western, USA.

O’Sullivan, A., and Shreffin, S. M. (2003). Economics: Principles in action. *Prentice Hall*, New Jersey.

Petersen, M. A., and Thiagarajan, S. R. (2000). Risk Measurement and Hedging: With and Without Derivatives. *Financial Management*, *29 (4)*, 5-29.

Ramchard, L., and Susmel, R. (1998). Volatility and cross correlation across major stock markets. *Journal of Empirical Finance*, *5*, 397-416.

Ross, S. A., Westerfield, R. W., Jaffe, J. F., and Jordan, B. D. (2008). Modern Financial Management. *McGraw-Hill Companies, Inc.* New York, NY.

Sanders Jr., R W., and Zdanowicz, J. S. (1992). Target Firm Abnormal Returns and Trading Volume around the Initiation of Change in Control Transactions. *Journal of Financial and Quantitative Analysis*, *27*, 109-129.

Schwert, G. W. (2003). Anomalies and Market Efficiency. Chapter 15, *Handbook of the Economics of Finance*, edited by Constantinides G. M., Harris M., and Stulz R., *Elsevier B. V.*

Scott, H. S. (2010). The Reduction of Systemic Risk in the United States Financial System. *Available at SSRN: http://ssrn.com/abstract=1602145*.

Sharpe, W. F. (1964). Capital asset prices: A Theory of Market Equilibrium under Conditions of Risk. *The Journal of Finance*, *19 (3)*, 425-442.

Staley, K. F. (1997). The Art of Short Selling. *John Wiley & Sons, Inc.*, New York.

Vayanos, D., and Woolley, P. (2009). Capital maket theory after the efficient market hypothesis. *Voxeu.org (www.voxeu.org)*.

Verschuren, P., and Doorewaard, H. (2005). Designing a Research Project. *Lemma*, Utrecht.

Woolridge, J. R., and Dickinson, A. (1994). Short Selling and Common Stock Prices. *Financial Analysts Journal*, *50 (1)*, 20-28.

Xu, Z., and Singal, V. (2005). Do Short Sellers Know More? Evidence from a Natural Experiment. *Available at SSRN: http://ssrn.com/abstract=687795*.

Internet Sources

Answer.com (http://www.answers.com/).

BusinessDictionary.com (www.businessdictionary.com).

ClevelandFed.org (www.clevelandfed.org).

CommercialAppeal.com (www.commercialappeal.com).

CultureChange.org (www.culturechange.org).

DeNederlandscheBank.nl (www.dnb.nl).

EconLib.org (www.econlib.org).

Fao.org (www.fao.org).

FinanzaLive.com (www.finanzalive.com).

FinanzaOnLine.com (www.finanzaonline.com).

Finra.org (www.finra.org).

TheFreeDictionary.com (www.financial-dictionary.thefreedictionary.com).

FxWords.com (www.fxwords.com).

Investopedia.com (www.investopedia.com).

Mass.gov (www.mass.gov).

MyStockMarketPower.com (www.mysmp.com).

MyInvestmentAnalysis.com (www.myinvestmentanalysis.com).

NASDAQ.com (www.nasdaq.com).

NewYorkTimes.com (www.nytimes.com).

Reuters.com (www.reuters.com).

Russel.com (www.russel.com).

Scholtzandco.com (http://scholtzandco.com/).

SecurityExchangeCommission.gov (www.sec.gov).

SOSTrader.it (http://www.sostrader.it/).

TradersMagazine.com (http://www.tradersmagazine.com/).

Appendices

Appendix 1. Interview I

Interview I: National Dutch Bank employee, Thursday, 6th May 2010, 10:00 am.

1. ***Can you introduce yourself?***
   (*answer covered by confidentiality*).
2. ***Can you briefly explain what is short selling?***
   I guess I would define short selling as taking any position where you benefit from the reduction in value of some underlying assets.
3. ***Why is this technique not so known even in the financial industry?***
   I guess it's really well known, it's basically a basic element of traditional risk management especially if you take the broader definition…buying a put option is a form of short selling as well.
4. ***What kind of risk is brought by such a trade?***
   I guess there are many (…) risk that could possibly be introduce by such a trade of course flows and risk management generally speaking can be problematic and with short selling they could potentially be more problematic than with a position that have positive carry, I guess when you refer to if risk count the underlying market, then I guess the main risk that I see is that in the case of naked short selling you get a squeeze situation if the amount of collateral to be delivered exceeds the amount of collateral available in the markets.
5. ***The main reason behind the short selling is the mispricing of a security and particularly the overvaluation of the security, what is your opinion about this? why are there assets that are overvalued?***
   Because markets are not always as rational as we assume.
6. ***You speak about inefficiency of the markets?***
   Yeah…not necessarily inefficiency but irrational behavior, hurdling behavior.
7. ***What kind of relationship, if any, do you see between the short selling and the market of derivatives?***
   A derivative is one of like, so I told you a put option, which is a derivative, is a form of short selling; XPDS protection on an asset you don't own is a form of short selling.
8. ***How many types of short selling do you know and what features do they have? …like you said that the put option is a form of short selling, which other form do you know?***

I guess the number of forms which you can do short selling is to infinite…that’s one of the characteristics of financial markets and that’s one of the reason why regulating is so difficult.

9. ***What do you mean by infinite?***

   That it’s always possible to create new financial structures, that alone or in combination with other structures, result in creating a short position.

10. ***So in practice you assimilate short selling to taking a short position?***

    Yes.

11. ***What opinion do you have on random walks?***

    I assume with random walks you mean that the equity markets according to traditional research behave like a random walk?

12. ***Yes, basically that, because as we know there are three main theory: the technical analysis, the fundamental analysis and then the theory of random walks that is some ways confutes the other two theories that aim to predict the price behavior or the price trend, so, I would like to know your opinion on these three theories.***

    I guess generally speaking we tend to follow what set in academic research and that’s markets are not being reverting and basically supporting the random walk theory…and there is a paradox of course over here that’s if people start doing fundamental research the random walk theory may lose its validity.

13. ***So do you think the price are predictable or not, to certain extent?***

    I guess supporting the random walk model implies that they already include all available information and it’s no longer possible to improve your prediction, unless you’ve got inside knowledge.

14. ***We spoke before about derivatives. So as you said, one can also speculate on downward moves by means of both buying put options but also selling call options. However for the short selling there is a regulatory activity while for those tools there is not. Why?***

    I guess that your question is not correct since the regulatory interventions, at least in the Dutch market included all forms of positions that are economically equivalent to taking a direct naked short position. It’s not a temporary measure we took after Lehman and so… it’s officially also included all those positions; I’m not sure whether all market participants were aware of that.

15. ***Is there any difference according to your opinion between those tools and the short selling or for you they are perfectly the same? I mean to take a short position in any way is exactly the same or there are differences?***

In the emergency regulation we issued after Lehman… all positions were evaluated anti-economic position they are created from the deadly composition.

16. ***With respect to the regulatory activity, what differences are there between private investors and companies? For instance do you have rules applied for private investors or all the rules and restrictions hold for any type of short sale independently from the entity that takes the short position?***

    I just don't know the answer. I guess in practice we do focus on firms rather than individuals, but I assume the regulation applies to individuals as well, but I'm just not sure.

17. ***With respect to the practical aspect of short selling like for instance the minimum cash coverage or the minimum percentage of coverage is there any difference between private investors or public company?***

    I guess in practice the rules are…if you are a professional party there is more flexibility and you are able, if you are a strong professional party, to come away with more lenient to collateral requirements.

18. ***Speaking about your financial regulatory activity, that's basically yours and AFM activity, what relationship do you have with other financial regulatory bodies, within the Netherlands, like the AFM and also with the foreigner ones? …like do you have fast-track information channels, or do you exchange any non public information…***

    We operate very closely with the AFM, if need arises, we are basically able to exchange information within ten minutes. We also cooperate closely with other countries parts with whom we exchange information that's confidential depends on where are institutions are most like this.

19. ***What differences are there between your supervision and the AFM supervision? So basically why do you need two institution that control for financial institution?***

    We have got a spak strentin model: we are responsible for the financial funds of institutions and for working on the financial systems; AFM is responsible for consumer protection and the functioning of markets.

20. ***How do you ensure that information that is more or less delicate in some sense, is not disclose by anybody?***

    AFM has a legal obligation not to disclose so we do ensure that within the supervisory complex we vote for (…) where we have an agreement on what information can be disclosed and what not.

21. ***How do you cope with insiders? They can have information that no one has and exploit that?***

No one here in this institution is allowed to invest in financial companies and those people, that have more privileged information than others, are not able to make direct investments at all, apart from investments in some index triggers that are not allowed to enter free trade.

22. ***Regarding the short selling do you have different rules for banks that operate in the Netherlands but are from different countries?***

    Of course not: it would be against the European Treaty.

23. ***In your website you mention that one of the supervision you carry out is that banks should be managed by trustworthy and knowledgeable directors. How do you evaluate a director? And, if a bank hires a director that they consider a good one, how can you prove the contrary, if necessary?***

    We do a very thorough evaluation of everyone we consider at the decision making position of financial institution; we have a separate department that is specialized in doing such assessments: evaluating the experience of people, evaluating the track record, evaluating whether they have been in touch with the department of justice or criminal offenses or similar things.

24. ***Then, if you come up with the conclusion that a directors is not trustworthy and knowledgeable is it compulsory for the bank to fire him or is it just an advice?***

    No, it's not just an advice; they are just not acceptable, and they are not able to take other position; …it's better than they withdraw spontaneously rather than we say such a problematic situation.

25. ***Monitoring on the basis of financial reports is more or less as professional short sellers do. However, in some cases they succeed also whereas controlling bodies like you or even analysts from the stock market fail. What reason, do you think is behind this different, let's say, rate of success?***

    I'm afraid your claim is a bit stronger than it is realistic; I guess…we use to say that markets can stay irrational longer than you can stay solvent and I guess a very good example of an institution that had fairy material short position is LPCM and in the end of the day they were forced to bill out since although they may have got their analysis right, they were not able to get the markets to return to the fundamentals they predicted within the time frame that their liquidity buffers allowed for.

Appendix 2. Interview II

Interview II: Bank employee. Monday, 31st May 2010, 11:30 am.

1. ***Could you please give a definition of short selling and explain briefly in what it does consist?***

   It's a way of trading in which you sell instruments that you're not really holding with the purpose to buy it back on a lower level.
2. ***Why do investors go short?***

   To make money or to hedge a long position.
3. ***Can you give an example of hedging a long position by short selling?***

   Yes: you can have bonds in portfolio, with a certain risk, if interest rates rise obviously the bonds will go down and therefore you can sell, for example, futures as a hedge.
4. ***Did you notice any change in short selling in the last years, let's say since internet became so common? Think about quantities, entities involved in transactions, modalities…***

   Well I think in general if you look back, the short selling has been in the market as an instrument for a long time already, and I think with the upcoming trend of hedge funds there probably might be an increase in short selling, but I don't have any figures to prove that, so that's more like a feeling, than it's a real truth, but as I said it's a really old instruments so it's been out there in the market for a long time already.
5. ***Do you think that short selling is a dangerous practice for the financial markets? …Why?***

   Well, lately I think it may be dangerous, but on the other hand is an instrument…investors don't have to trust anymore in a certain stock or bond or country…that's for a reason…so it's for example Greece…they mislead investors by coming up with bond figures, so they start short selling the bonds and maybe if someone is not telling the truth, they get punished and that's the way it works in the market.
6. ***Which is the role that short selling plays in financial markets?***

   It's just a part of the system.
7. ***Can you mention any consequence by short selling on the financial markets?***

   Only becomes a little bit dangerous when there is no liquidity at all. If liquidity dries up and traders will short sell when there is no bid then it can accelerate the negative effect on the price. That's a little bit dangerous of course, but as I said before it's always for a reason. It's part of the trading system.
8. ***Is that that happened with the decision by Germany to prohibit short sales?***

In a way I think it was a good decision, but what was not good is that if you do like prohibit short selling it has to do it for every market otherwise it won't work. If you choose only for Germany to stop selling short, that's not a good decision, because there are other ways to do with them; so in a way it was a good decision but the markets you saw that they didn't like the decision, because it was only just a decision for a certain part of the market and that doesn't work. But on the other hand I think if you look at like on a country basis is like traders can blow up a country by short selling you might have to think over at this instrument is really a good instrument: that's obvious.

9. ***To what extent are financial markets efficient, in general? …Why?***

   They say they are always efficient; markets are always right.

10. ***Do you think that nowadays the short selling is still an element of the traditional risk management or it became more a speculation tool?***

    Lately it's more like a speculation, but before that it was just an instrument, but now it's really like in the news everywhere. It's a really hard topic. You saw that also with the fall of Lehman and other like bankrupted companies. But as I said it has two sides: a trader won't go short if he doesn't believe it goes down, if companies don't say the truth they lose the trust and trust is really the basis of the financial markets so in that way it's logic that traders would sell it short because if you don't tell the truth you get punished. That's the way it works.

11. ***How can you match the fact that financial market should be efficient with the existence of a speculation tool?***

    I think it's just a part of whole system, like short selling is a part of how you can trade financial instruments. It's really an old instrument, for many years, you know, let's say before two years ago nobody was talking about short selling, nobody even knows what short selling is, everybody found it really like fancy or difficult instrument to explain…it's not really a little bit synthetic thing going on and…it's a part of the market and in that way it's efficient.

12. ***How many types of short selling do you know?***

    I think there is only one, just taking a short position…if you're not holding bonds or stocks or whatever, you're selling something that you're not holding…and that's short selling, I think.

13. ***Why does it need regulations?***

    I don't even know it needs a regulation because what is there to regulate it's just an instrument to translate a certain view on your investment so you can buy puts, you can sell short or…but it's only for like professional…like a normal investor it's not possible to sell short, it's very difficult…so it's a professional instrument…some (…) can but it's more like a professional tool… that's difficult I think…I think you do it or you don't do it because the regulation always comes after the damage, that's what I think.

14. ***How does the regulatory activity work?***

    I think everybody is free to sell short, but lately we saw regulations like the stop to sell short only on a regular basis.

15. ***Which is the reason beneath the prohibition, why do they decide: ok now we stop short selling?***

    Because if they let it go on, the underlying companies will be bankrupt.

16. ***So that's why they stop short selling only on certain securities while on others it's allowed…***

    Yes.

17. ***Is there any difference in the regulation between private investors and public company?***

    I'm not aware of that…I think there is not.

18. ***You mean the regulation is more on short selling itself than on the entity that sells…***

    Yes.

19. ***Do you know any financial structure (or combination of financial tools) capable to avoid the regulations?***

    Let me think about it…you can...maybe what you can do is…you can…you can sell the "deep in the money" call option…but It's not really…because if you have a deep in the money option, it's the stock already…it's not really the stock but it's like…stock it turns the exposure you have related to the delta of the option…so in that way you can easily… …it's not really selling the stock but selling the option…

20. ***So you mean selling call option…because I talked with other financial experts like you and they say that short selling is more like buying put options…but no one of them mentioned call options…***

    Well…buying put options selling call option…it's the same…

21. ***…ok…that's also my feeling…because no one of them spoke about selling call options…just buying put options…***

    No…buying put options is completely different, because you pay the premium of the option…I think with options…it's closer to short selling to sell the call option because you're not holding the call option and you're selling the call option…with the same exposure…if you have the deep in the money like (…), then you're selling the stock actually… you're not holding that stuff, so…

22. ***What risks are associated with short selling?***

We have a risk that is a price risk…it's pure price risk you have…and if you're selling bonds, you have to pay the bonds because you're short selling the bonds and the risk here is that you can't deliver the bond so you have to lend the underlying, so…

23. ***What is the difference between short selling and naked short selling?***

    I think in my opinion it's the same…probably it's not really with definitions, but I think that "naked" stays to explain that you're not holding the underlying…so you're naked you don't have any collateral…there's no collateral…so that's naked.

24. ***Is there any specific or practical reason to choose the one or the other?***

    No, because in my opinion they're the same, cause if you short sell…you're not holding it otherwise it's not short selling…

25. ***…maybe in the regular short selling you first borrow the security and then short sell it…***

    …ah ok…well, yeah… …but always you have to deliver the underlying…so what I was telling you in the last question, at a certain point if I sell something, the buyer wants to get delivered the bonds…but I'm not holding it…so I have to borrow it in time…because the buyer wants to have the underlying.

26. ***According to your opinion, for the short selling is more important the fundamental analysis or the technical analysis?***

    I think the fundamental…

27. ***Do you think that securities prices always reflect the underlying value? …Why?***

    Yeah…market's always right…in certain…like really falling down markets…you get exaggeration downwards, but also upwards there might be like certain inefficiencies at a certain point…but that will be like trading…that will be traded away…like this card will be away…because there will be…for example if it goes down really fast at a certain point there will be buyers…or in a worse case…(…) it's really like…showing that figures that goes…really goes down.

28. ***Do you have any clue about why this happens? I mean the fact that at a certain point there can be a mispricing of the security, like the price doesn't reflect the value of the underlying…***

    Yeah, that's the exaggeration of the emotion of investors…it depends on investors' psychology.

29. ***Professional short sellers look for overvalued securities mostly by means of financials analysis and privileged information research: why are they able to detect those mispricing, when analysts are not?***

    I'm not (…) with that thing…everybody has the same information… or should have… yeah… everybody has the same information at the same time…. So, yeah…maybe it's just a matter of the analyst of the short seller itself or maybe a model that's behind it gives them signals to buy or sell… you can say that everybody has the same information, so…

30. ***Do you say that because of the efficiency assumption of financial markets, or because you're really convinced…***

    Yeah… I must be convinced, but… yeah… because times are changing, because fifteen years ago it was completely different… like if you have information before, then you were a smart guy… you go to jail if you have those information... so… times are changing… but now I think in a way it's… it's rather efficient in that way… I think it's not… you can't have 100% but… yeah, I think that everybody has the same information…

31. ***Do you believe in the technical analysis? Why?***

    In a certain way… it's an extra tool… to… decide whether or not to buy or sell… so… if you do that in combination with other tools… you can…

32. ***…other tools like?***

    …like fundamental analysis…

33. ***Could it help understand market reversals, for instance from bull to bear market, becoming so another tool in short sellers' hands, or do you think they just look for undiscovered big troubles more than simply and small trend reversals?***

    …yeah, it's more what you believe also… technical analysis can be very helpful mainly and especially when you really believe in it and you don't look at fundamentals at all…and you're only watching the trends and you're really consistent in the signals they give you… and you invest to wait signals… then it might be a good tool… there's a part of the market or investors who believe in technical analysis…

34. ***What is your opinion about the random walk theory? Are the prices totally unpredictable?***

    Yeah, nobody knows… and if you know, we only have to do it once… yeah, nobody knows where the price is going… nobody knows… that's a fact…

Appendix 3. Interview III

Interview III: Professor of Financial Intermediaries, and San Paolo Bank Financial Department employee, Wednesday, 16th June 2010, 9:00 pm.

1. ***Può gentilmente presentarsi?***

   (*answer covered by confidentiality*);

2. ***Potrebbe definire la vendita allo scoperto e spiegare brevemente in cosa consiste?***

   Dunque le vendite allo scoperto sono vendite realizzate da operatori di mercato che si trovano in situazione…possiamo distinguere rispetto a 2 ipotesi. Sono in un contesto normale gli operatori di mercato che utilizzano le vendite allo scoperto con finalità speculativa , con finalità di copertura, non sono viceversa in una situazione normale gli operatori con finalità che sono riconducibili ad abusi di mercato. Quindi abbiamo 3 finalità: speculativa, di arbitraggio e copertura che sono finalità lecite, o che concorrono alla migliore efficienza del mercato; se però la realizzazione di queste finalità viene posta in essere con l'intento di compiere un abuso di mercato, allora al pari di qualsiasi altra operazione compiuta in un simile contesto, allora queste operazioni sono da "condannare". Diversamente le operazioni di short selling in sé non sono da vedersi negativamente, ma sono operazioni normali che concorrono ad una migliore efficienza del mercato.

3. ***Perché gli investitori vendono allo scoperto?***

   Per fini speculativi, perché si aspettano di vendere oggi qualcosa che vale di più di quello che varrà domani. Poi le modalità con le quali possono realizzare queste operazioni di vendita allo scoperto possono essere diverse: scoperto senza titoli (naked), scoperto con prestito titoli. Poi ci sono tante modalità tecniche attraverso le quali è possibile raggiungere l'obiettivo. È chiaro che in un contesto di vendita con regolamento a 3 giorni come succede nel nostro e in quasi tutti i contesti stranieri, vendere allo scoperto senza avere dietro una operazione di prestito titoli, può portare ad un fallimento del regolamento dell'operazione quindi è chiaro che diventa difficile realizzare un'operazione di questo genere. Diverso era il contesto precedente della liquidazione a termine in cui si poteva andare scoperti senza avere titoli e rimanere scoperti per una settimana o più. Ma questo contesto non c'è più … comunque le finalità sono speculativa, di arbitraggio (potrei vendere su un mercato rispetto ad un altro, contesto reso possibile dalla MiFid che prevede l'esistenza di più luoghi di negoziazione, per cui io posso come dire cercare di sfruttare il fattore liquidità di un mercato rispetto ad un altro, per cui per esempio posso vendere FIAT su un mercato piuttosto che su un altro, non avendo i titoli ma perché mi aspetto che su un mercato magari più liquido sia possibile vendere meglio e comprare meglio successivamente in un mercato meno liquido, o viceversa a seconda dei contesti. Quindi una fase arbitraggio, e poi una fase di copertura: io potrei vendere ma avere delle opzioni acquistate, ma lì non è detto che io realizzi un'operazione di pura vendita allo scoperto, la finalità è quella di copertura: io potrei vendere senza avere i titoli, però magari ho comprato un contratto che mi permette di dichiararmi compratore del titoli, quindi tecnicamente potrei non essere scoperto, apparentemente dichiarandomi scoperto. Quindi le finalità sono speculativa di arbitraggio e di copertura che aggiungono all'efficienza dei mercati perché permettono di colmare avvallamenti di prezzo, situazioni particolari in certi momenti, etc.; tutto quello che è possibile immaginare nelle vicende giornaliere di un mercato.

4. ***Lei ha parlato di modalità tecniche, quali sono le più comuni?***

La modalità tecnica più comune di vendita allo scoperto è quella di vendita con una copertura da contratti derivati. In Italia io non so adesso recentemente, in passato era abbastanza difficile con una copertura da prestito titoli. Che poi questa copertura da prestito titoli avvenga più che attraverso Monte Titoli, attraverso il prestito titoli fatto fuori dai mercati regolamentati questo è altrettanto vero. Ci sono soggetti che vivono del prestito titoli al di fuori dei mercati regolamentati, ad esempio Banca Imi ha dei dipartimenti esclusivamente dedicati all'attività di prestito titoli che consentono attività di vendita allo scoperto, cioè che supportano attività di vendita allo scoperto, ma non a seguito di fail nel regolamento di un'operazione come succede a monte titoli, che permette di mettere a posto operazioni magari di vendita che dall'altra parte hanno un acquisto che non va a buon fine. Qui si tratta di un'attività, se posso dire, su scala industriale dove si scambiano quantità di titoli sconosciute, per importi estremamente rilevanti a condizioni di tasso che non sono visibili, perché è un mercato OTC, completamente OTC, ma di importi estremamente rilevanti, in passato per esempio questo avveniva in modo enorme, cioè enormemente consistente in occasione degli *stacchi cedole*, dei dividendi: dove succedeva che i fondi comuni di investimento che non erano nella condizione di poter avere credito di imposta, cedevano i titoli un istante prima dello stacco a soggetti che potevano avere credito di imposta e si facevano restituire i titoli un istante dopo percependo in questo modo il credito di imposta o permettendo un vantaggio che era l'equivalente o corrispondente al vantaggio che potevano ottenere dal punto di vista del credito di imposta i soggetti che lo potevano monetizzare, cosa che al fondo comune non era consentito. Ecco attività di questo genere erano svolte, poi adesso le situazioni sono un po' cambiate, erano svolte dalle principali case di investimento, Banca Imi e Caboto, erano i più grossi in Italia, adesso insieme sono Banca Intesa. Era un'attività di dimensioni inimmaginabili da fuori: nessuno si rendeva conto, addirittura permettevano il bilancio, di realizzare l'utile di un intero esercizio, quindi dimensioni estremamente grandi alle quali ci si dedicava con personale altamente specializzato fra l'altro costituendo a volte brench separate, come per esempio ce l'ha Banca Imi a Londra, appositamente attrezzata per poter consentire la realizzazione di queste operazioni anche da fuori. Adesso credo che la situazione non sia più questa, parlo dei primi anni 2000 fino al 2003 2004.

5. ***Per copertura intende l'hedging, giusto?***

   Si per copertura intendo hedging: copertura attraverso contratti a premio, contratti future.

6. ***Il fatto di coprire per mezzo di una posizione corta, si tratta sempre di coprire una posizione lunga…***

   Si, poi bisogna vedere nel contesto perché uno va "fuori", va scoperto. Può far, parte ad esempio di una strategia. Fatta per esempio da tanti pezzetti che singolarmente presi possono dare la sensazione che si stia non operando in forma di scoperto. La CONSOB d'altra parte credo, se non capisco male ha pubblicato dei documenti nel quali dice che preferisce, se entriamo nel merito della regolamentazione di questa forma operativa, preferirebbe sentirsi comunicare dal mercato le posizioni NETTE scoperte, piuttosto che le posizioni lorde, perché poi dalle posizioni lorde non si riesce a capire e rischi appunto un misleading nel senso di non capire bene di un soggetto se vai solo sulle posizioni lorde se un soggetto sta veramente facendo una operazione di scoperto oppure no. Invecce le posizioni nette, cioè dove si tiene conto da un lato delle posizioni di scoperto, dall'altro della copertura realizzata attraverso uno strumento derivato, a saldo, viene fuori…e questo dovrebbe essere l'obbligo di comunicazione, perché poi ci sono 2 anzi poi credo che la consob intenda report come comunicazione alla consob e trasparenza. Con l'espressione trasparenza intenda la comunicazione *al mercato*. Allora è essenziale innanzi tutto che la trasparenza avvenga verso la consob tramite report. Cioè i soggetti temuti devono comunicare alla consob le posizioni scoperte nette chiaramente individuali altrimenti la cosa perde di senso, la consob a sua volta provvederà a ribaltare sul mercato la comunicazione dei contenuti di questi report in veste *aggregata*, perché evidentemente al mercato non interessa chi è scoperto … non è vera questa cosa, ma è un modo di dire, perché in realtà il mercato se riesce a percepire chi è veramente scoperto ha un'informazione molto più preziosa che se sapesse soltanto i valori aggregati, però è un accordo tacito di tutto il mondo che si dice: "va bene, l'autorità di governo del mercato ti comunica i dati aggregati e tu devi essere contento dei dati aggregati" … ma se riuscissimo a percepire tra due soggetti che uno è un operatore scopertista per mestiere e l'altro è uno scopertista occasionale, capisci bene che differenza ci sia nell'informazione, ma è chiaro che la consob non può porsi in una situazione di questo genere; d'altra parte dobbiamo anche pensare che, da quello che mi sembra di capire, la consob in questo momento si preoccupi di una regolamentazione che in questo momento non è possibile individuare come definitiva, e quindi siamo in una fase interlocutoria; 2) che la preoccupazione della consob sia di distinguere tra una regolamentazione a carattere strutturale e una regolamentazione contingente, voglio dire: una regolamentazione in tempi ordinari dovrebbe prevedere, premesso che il divieto assoluto di scoperto non credo rientri nella mentalità della consob, proprio perché ritiene che la consob possa essere una forma operativa che contribuisce all'efficienza del mercato, allora i divieti assoluti no; operare in un contesto di trasparenza, dove qui trasparenza è un concetto generale e non distingue tra report e trasparenza verso il mercato, operare in una condizione di trasparenza in tempi normali, distinguendo rispetto ad una posizione di trasparenza per i tempi straordinari. Allora, rispetto ai tempi normali si pone il problema di dire: "come disciplianiamo questo fenomeno, che in un contesto più anomalo, come è quello più recente si è proposto all'attenzione dei governi, tanto che qualcuno, come il governo tedesco ha proposto soluzioni drastiche?". Allora la consob adesso propone trasparenza in questo modo: posizioni nette, le conosco io consob, e poi comunico al mercato le posizioni aggregate. Questo finchè la situazione è ordinaria. Quando la situazione diventa straordinaria, e quando diventa straordinaria, non lo sa nessuno. Lo valuterebbe e deciderebbe la consob; allora a quel punto chi lo sa, potrei accentuare le situazioni di trasparenza laddove io percepisca che questa attività lecita di scoperto, assume la veste di attività illecita perché si concretizza in manifestazioni di abuso di mercato; come faccio a capirlo non è facile, è un po' come quello che succede con gli obblighi di segnalazione che per esempio i soggetti hanno anche oggi ai fini dell'adempimento sulla disciplina del market abuse, insomma di quella parte del testo unico della finanza che disciplina non tanto lo short selling che non è ovviamente disciplinato lì, ma più in generale, i comportamenti anomali, perché poi operazioni di short selling che non operano nel senso dell'efficienza del mercato, beh si possono fare, perché io per esempio, vendo allo scoperto, poi diffondo voci di difficoltà della società, di questo o di quello, alimento correnti di vendita e vado a coprire lo scoperto un giorno dopo, 2 giorni dopo a prezzi estremamente convenienti. Qui non è più speculazione, non è arbitraggio, non è hedging, ma siamo nel contesto della disciplina sull'abuso di mercato. E allora il discorso diventerebbe diverso.

7. ***Il fatto che la Germania abbia bloccato improvvisamente le vendite allo scoperto solo sul mercato tedesco, lei come lo valuta?***

Allora, leggendo i giornali, ma solo leggendo i giornali, sembrava di capire che ci fosse una preoccupazione, tale che poi si è mosso anche il governo tedesco nella figura della Merkel, lì sembrava che ci fosse una preoccupazione per qualche banca. Poi questi obblighi, questi divieti riguardavano titoli di banche e primarie assicurazioni tedesche. Allora lì si temeva che ci fosse qualcuno che potesse… allora in un contesto anomalo di questo genere, è tutto possibile; allora in assoluto, primo, in un contesto di mercati, diciamo europeo, ma dovrebbe essere anche più ampio, dovrebbe esserci un comportamento uniforme. Comportamento uniforme significa disciplinato da una norma alta, che è verosimilmente una normativa o molto probabilmente un comportamento comunitario recepito nei contesti nazionali; è chiaro che è difficilissimo arrivare a questo obiettivo, perché si tratta di mettere insieme tante teste, si tratta soprattutto di intervenire su prassi operative di mercati che vanno per la gran parte, ciascuno per proprio conto. Cioè hanno una storia e delle prassi che sono completamente diverse quindi è difficile cercare di intervenire e classificarle nell’estremo dettaglio, perché qui bisognerebbe farlo in dettaglio, allora primo, non è lecito che ciascuno vada per conto proprio, ma bisognerebbe andare tutti sotto un cappello unico; secondo, in un contesto così difficile però e in assenza di una regolamentazione, perché si auspica il cappello unico ma non c’è ancora, è lecito pensare che in situazioni di estrema emergenza qualcuno vada per conto proprio. Poi si crea una situazione di arbitraggio regolamentare, allora i mercati tedeschi che non permettono le vendite allo scoperto, vado sul mercato inglese, vado sul mercato francese, vado sul mercato italiano, funziona un pochettino così; però certo se questo era il frutto che qualche grande banca tedesca o qualche grande assicurazione tedesca fosse in difficoltà e queste difficoltà potessero venire alimentate da una speculazione particolarmente interessata e si potesse sconfinare nell’abuso di mercato, cioè che ci fosse qualcuno che avesse informazioni privilegiate e altri no, allora qui è ragionevole pensare che ci sia un comportamento che blocca finché tutti non vengano messi nelle stesse condizioni; però deve essere un provvedimento temporaneo, deve avere una durata circoscritta, limitata, giustificata da una situazione eccezionale per andare fuori dalle regole in tempi stretti e purchè sia dia disclosure del perché si va fuori dalle regole … ma fatto come è stato fatto senza scadenza e senza alcuna spiegazione, è vero che il cappello unico non c’è, però la risposta della consob a questa situazione è stata che noi continuiamo a comportarci come ci siamo sempre comportati: non perché loro lo hanno fatto anche noi lo faremo; il che può derivare o da una diversa percezione dello stato di bisogno – in Germania c’era, in Italia non c’è – oppure dalla volontà proprio di non voler prendere posizioni definitive su i divieti assoluti; consob non vuol sentir parlare di divieti assoluti, vuole al più sentir parlare su una costruzione di regole che ruotino attorno alla trasparenza e mai di divieto assoluto.

8. ***Come è cambiato negli ultimi anni lo short selling? Per esempio con l'avvento di internet sono cambiate per esempio le quantità che sono scambiate, oppure le entità coinvolte …***
   Non saprei darti una risposta. Non ho numeri e non ho elementi per valutare.
9. ***Secondo lei sono pericolose le vendite allo scoperto per i mercati finanziari?***
   No torniamo al discorso di prima: se io ho aspettativa che la FIAT, adesso torniamo indietro a quando c'era da fare l'accordo con Chrysler. Allora io devo poter scommettere che l'accordo ci sarà o l'accordo non ci sarà e valutare positivamente l'accordo negativamente il fatto che l'accordo non ci sarà. Io sono una persona fisica e non ho informazioni privilegiate. Io ho il diritto – perché così concorro al buon funzionamento del mercato – di poter prendere posizione contraria all'opinione pubblica; ad esempio l'opinione pubblica dice che dall'accordo con la Chrysler la Fiat deriverà un vantaggio, mentre io penso che ne deriverà uno svantaggio. Allora io in quel momento che ragionamento faccio: quando anche gli altri che oggi dicono che è un vantaggio si accorgeranno che si tratta di uno svantaggio, anche loro andranno a vendere; in quel momento io che li ho anticipati anche di un giorno andrò a riprendere posizione sul medesimo titolo ad un prezzo più basse, cioè che incorpori le nuove effettive informazioni, che in questo momento per me sono aspettative; come dire, è insulso limitare le vendite allo scoperto a priori immaginando solo che possono fare male perché i prezzi scendono. Il fatto che i prezzi scendono non è in sé un male, è anzi un bene perché esprime un diverso apprezzamento sulle aspettative di profittabilità del titolo, che può succedere che siano negative; ed io perché dovrei, sarebbe come dire limitiamo l'operatività in un'unica direzione, al rialzo ed escludiamo la possibilità contraria; questo non sarebbe nemmeno mercato, ecco banalmente. Non ci sarebbe non soltanto nel mercato di borsa ma in qualsiasi mercato.
10. ***Lei prima ha parlato di diffusione di informazioni false e fuorvianti, quanto è autentica la minaccia che una vendita allo scoperto sia accompagnata da una campagna in questo senso?***
    Dunque, è possibile che questo succeda, ed io lo leggo come ti dicevo prima, lo lego anche all'informazione aggiuntiva che viene dal sapere chi è il soggetto che sta assumendo posizioni corte. Perché ci sono soggetti, la storia del mercato, ma io mi riferisco al mercato italiano, vado indietro di 15 anni, fa capire, ma è la stessa storia che è buona anche sui mercati stranieri, se io li conoscessi, ma non li conosco. La storia ti fa capire che se un certo soggetto è scoperto vuol dire che quel soggetto è abituato ad avere informazioni; io potrei agganciarmi a quel soggetto e sfruttare le sue informazioni. Questa è la ragione per la quale la consob non darà mai le posizioni nette individuali come comunicato per il mercato,

ma solo le posizioni aggregate. Pur sapendo che il mercato delle posizioni aggregate se ne fa, ma se ne farebbe molto di più delle posizioni individuali nette scoperte. È chiaro che noi associamo la discesa dei prezzi ad un evento negativo e la salita dei prezzi ad un evento positivo, viene spontaneo fare questo, mentre invece non dovrebbe essere considerato così , è un modo distorto di vedere le cose. Io credo che in linea di principio non dovrebbe avere peso vedere il prezzo dei titoli che scende perché è un riposizionamento delle aspettative, però questo può rappresentare o può essere un segnale negativo, laddove per esempio alla notorietà della quantità di scoperto si associ il nome dell'intermediario scopertista, ecco perché questo a volte è sinonimo di un comportamento non corretto al quale è facile per gli altri intermediari di mercato associarsi andando in coda senza che loro sappiano il perché … mettiamo il soggetto A è ampiamente scoperto su generali, sappiamo per storia che quando il soggetto A è ampiamente scoperto su generali, succede che il prezzo delle generali scenda; lui magari è in una situazione di abuso di mercato, noi no, perché noi guardiamo lui, non sappiamo che motivazioni ha lui, ma a noi basta vedere lui per tenere comportamenti simili ai suoi: così facendo noi alimentiamo un fatto negativo, perché non è un riposizionamento delle aspettative, nemmeno il nostro e men che meno il suo che è un comportamento frutto di abuso di posizione sul mercato, che è cosa diversa dall'operazione di scoperto generata da comportamenti speculativi, cerchiamo di guardare più avanti, da copertura, da arbitraggio. Queste3 cose sono completamente distinte e diverse da quello detto prima: io vedo che qualcuno è fuori sul mercato … viceversa, io vedo il dato aggregato, non è così rilevante, non ha lo stesso … può portare ai medesimi risultati, nel senso che magari anche io mi aggrego, ma mi aggrego con motivazioni che sono diverse: non perché conto sul successo di quel soggetto, ma perché seguo l'andamento delle condizioni di mercato. E allora immagino di avere una informazione che mi permette seppure con un piccolo ritardo di riposizionare anche le mie aspettative, che è cosa diversa dal dire: "ho visto Rovelli, che era uno dei grossi operatori che facevano queste cose sui nostri mercati 20 anni fa, che vende, vendo anche io, perché se vende lui Generali, sono sicuro che Generali sta per scendere". Diverso è il ragionamento di avere il dato aggregato, la posizione netta scoperta del mercato, aggregata quindi, che mi fa dire: "beh può darsi che io se insisto a tenere la mia posizione, non sia stato capace di apprezzare bene la necessità di riposizionare le mie aspettative sui prezzi di quel titolo".

11. ***Su andamenti che invece sono già al ribasso, quanto lo short selling influisce? Può causare ad esempio ulteriori cadute del prezzo non giustificate da un riposizionamento delle aspettative, ma solamente come short selling in sé per sé?***

Se io ho la posizione del dato aggregato è possibile che io dica: “non me ne ero accorto, mi metto anche io scoperto”; a questo punto il dato aggregato alimenta una crescita del dato aggregato stesso. Questo tuttavia in sé non è negativo, secondo me; proviamo a ragionare all’opposto: io vedo che il prezzo del titolo cresce, continua a crescere - posso essere di fronte ad una bolla speculativa - può essere che sia in atto un apprezzamento diverso sulle condizioni del titolo, io cosa posso fare?! Posso decidere di aggregarmi e comprare anche io correndo dei rischi, perché sono ormai nella situazione in cui il titolo è salito di molto e io compero, è chiaro che mi prendo dei rischi maggiori di quelli che si sono accorti ieri che il mercato stava salendo, che a loro volta han preso dei rischi maggiori di quelli che se ne sono accorti l’altro ieri. Però, in sé, non è un fatto poco commendevole: fa parte dei comportamenti di mercato; in realtà il comportamento del mercato dovrebbe essere quello non di soddisfare il comportamento razionale del singolo: io mi aspetto che il titolo salga e quindi lo compero; proviamo a pensare: l’investitore che ha successo non è quello che ex post dice “hai visto come sono stato bravo a prevedere che generali sarebbe salita, ed è salita”, quello bravo è quello che dice: “avevo percepito che il mercato si aspettasse una crescita delle generali …”; non è sulle mie individuali e personali aspettative che devo puntare per avere successo, ma nella mia capacità di interpretare quello che il mercato sta pensando, perché poi non è la mia posizione marginale che determina la situazione del mercato; quindi la mia capacità non deve essere di leggere bene dal mio punto di vista soltanto, ma di leggere bene quello che sta pensando il mercato. E allora se il mercato sta pensando che il titolo deve scendere, mentre io ho aspettative che il titolo salga, lì devo decidere: vado con la mia testa, oppure la mia testa è così intelligente, da farmi capire che io non devo insistere sulle mie idee ma devo insistere sulla mia capacità di interpretazione di quello che pensano gli altri … vallo a sapere? Ci sono delle belle pagine di Keinz dove si spiegano queste cose, dove si raccontano le determinanti nella scelta degli investimenti, e parla dei mercati di borsa e semplifica veramente bene. Sono 4 o 5 pagine in cui si riesce a spiegare veramente bene la psicologia del mercato: non è importante che tu realizzi quelle che sono le tue singolari aspettative, l’importante è che tu sei bravo se riesci a capire quello che sta facendo il mercato e ad anticipare quello che sta facendo il mercato. È un po’ la situazione dei fondi comuni di investimento quando magari hanno aspettative positive, loro sono obbligati, hanno aspettative positive sul mercato, ma il mercato in quel momento è negativo. E loro possono insistere sulle loro idee? Domani pubblicano il valore della quota, il prezzo dei titoli scenderà, se tu non vendi puoi anche avere ragione, ma tu domani devi pubblicare il prezzo della tua quota e se non vendi oggi, domani avrai un prezzo ancora più basso, mentre invece se vendi avrai un prezzo altro perché avrai il valore più basso più la liquidità che avrai incassato vendendo il titolo … e quindi riesci a tenere a galla il tuo prezzo … come dire devi anche essere capace di farti un po' di violenza e accettare di vendere, però sapere interpretare bene il mercato non è facile, occorre avere anche qui esperienza, sapere, conoscere, un aiuto grosso veniva una volta dalla conoscenza dei comportamenti dei singoli; oggi il mercato è sempre più anonimo, il mercato è sempre più realizzato in modo frammentato, su più luoghi di negoziazione, purtroppo la Mifid ha fatto un danno fuori dalla grazia di Dio da questo punto di vista e se ne accorgeranno andando avanti sarà sempre peggio … ma ha fatto un danno perché ha spezzettato, ha frantumato il mercato e diventa sempre più difficile capirlo e conoscerlo; aldilà del fatto che le negoziazioni sui circuiti telematici sono anonime, questo da un certo punto di vista è positivo, voglio dire, però ti permettono di apprezzare i comportamenti del mercato se fai riferimento al mercato regolamentato, ma a tutti i segmenti OTC che trattano i medesimi titoli negoziati sui mercati regolamentati, e questi ti sfuggono e magari non ti aiutano ad avere una percezione corretta del comportamento, in generale, del mercato.

12. ***Le vendite allo scoperto possono aumentare la volatilità del mercato?***

Possono aumentare la volatilità del mercato perché effettivamente concorrono a determinare comportamenti che possono essere apparentemente anomali. In realtà però nel medio e lungo termine dovrebbero essere in grado di correggere le situazioni anomale, cioè allora, se non ci fossero le vendite allo scoperto, potrebbe succedere che rispetto ad un certo titolo all'improvviso si abbia una forte caduta dei prezzi. Le vendite allo scoperto potrebbero concorrere ad attenuare questa caduta dei prezzi, perché evitano che le attese per esempio su un ridimensionamento del prezzo, si formino tutte nello stesso momento; ad un certo punto non se ne può più di tenere il prezzo alto e il prezzo improvvisamente scende. Le vendite allo scoperto permettono probabilmente di anticipare i movimenti e di evitare grosse oscillazioni nei prezzi, e di rendere probabilmente le oscillazioni nei prezzi più limitate, da questo punto di vista secondo me concorrono ad attenuare il livello di volatilità dei mercati; parlo sempre di quelle forme di scoperto guidate da quei 3 criteri, perché di fronte a quelle originate da situazioni anomale di abuso di mercato, lì non ci sono santi è chiaro che determinano una situazione di caduta improvvisa, immotivata e quindi potrebbero concorrere ad elevare almeno nel breve periodo la volatilità del prezzo del titolo.

13. ***Lo short selling può essere usato per abbassare volontariamente il prezzo di un titolo.***

Intanto dipende dalla liquidità del titolo, perché se pensiamo ad un titolo Fiat o a un titolo Bulgari, è chiaro che è più facile intervenire su Bulgari che ha un flottante più piccolo, che su Fiat. Certo a parità di risorse su Bulgari e su Fiat ottieni un risultato diverso, perché su

Bulgari, essendo un titolo meno liquido, puoi a parità di risorse, abbattere il prezzo in misura più consistente di quanto tu possa fare rispetto ad un titolo più liquido quale può essere Fiat. In generale però questo succede sempre; distinguiamo gli scoperti buoni e gli scoperti cattivi, gli scoperti cattivi abusi di mercato. Sempre, se tu vendi allo scoperto … allora tu puoi vendere allo scoperto la tua quantità a prescindere dalla liquidità del titolo, a te interessa vendere, ti aspetti che domani il titolo sia più basso e lo vai a ricomperare; un'altra cosa è dire: "io opero su una quantità di quel titolo tale da determinare non solo la mia uscita dal mercato, ma una frana nel prezzo del titolo"; allora dipende dalle dimensioni dell'operazione che fai; io parlo sempre di scoperti buoni: è chiaro che se tu metti 100 milioni di euro su bulgari e vuoi andare scoperto di bulgari e metti 100 milioni di euro su Fiat ottieni 2 effetti diversi; in tutti e due i casi tu hai la volontà di far scendere il prezzo del titolo, ma anche quando tu compri, influenzi il prezzo del titolo; compri 100 milioni di Bulgari, compri 100 milioni di Fiat, non hai la medesima volontà?? Solo che è opposta. Eticamente è negativo?? No! È negativo eticamente se questa tua intenzione viene dallo sfruttare informazioni che configurano abuso di mercato.

14. ***Lo short selling fornisce liquidità ai mercati?***

Si certo, ma questa è l'ottica, se vogliamo fare un riferimento formale, ufficiale è l'ottica della CONSOB; cioè le forme buone di short selling concorrono anche a dare liquidità al mercato e a mitigare la volatilità dei prezzi sul mercato; a dare liquidità al mercato perché concorrono a far si che ci siano, che ci sia un maggior volume di scambi e di flottante; a mitigare la volatilità del titolo per le ragioni che ho detto prima; tu esci sul mercato facendo scendere il titolo, aiuti gli altri a capire che ci si sta riposizionando come aspettative sul prezzo del titolo e quindi aiuti gli altri ad individuare un prezzo più corretto del titolo e questo si realizza attraverso gli scambi; questo significa più liquidità, significa miglior raggiungimento dell'obiettivo per l'Istituto Borsa, cioè del mercato; il mercato ha come obiettivo quello di far sì che tutti i giorni sul mercato si formi il prezzo più corretto possibile, non è colpa del mercato se le aspettative su un dato titolo vanno riviste al ribasso, perché allora sarebbe una bella cosa se venissero riviste al rialzo e brutta se venissero riviste al ribasso?? No. Il mercato è neutrale rispetto a questo; al mercato interessa che ogni giorno sul mercato si formi il prezzo più prossimo possibile rispetto al prezzo fair per quel titolo, che questo avvenga attraverso vendite allo scoperto buone, oppure vendite su posizioni lunghe, questo è indifferente, insomma.

15. ***Quindi in sostanza lo short selling migliora l'efficienza del mercato?***

Aiuta ad individuare meglio la miglior valutazione possibile del titolo, questo sicuramente. Se parliamo di scoperti buoni.

16. ***Lei crede che i mercati siano efficienti in generale?***

    Io non ho mai comprato un titolo perché non ci credo sostanzialmente e perché ho lavorato solo sull'obbligazionario. Non lo so, cioè se dovessi ragionare dicendo: io mi faccio un'idea di un titolo e vorrei tanto che il mercato facesse quello che penso io, e poi vedo che succede il contrario, non lo so, io per esempio sarei positivo sul titolo Eni per dire, no?! Perché per un insieme di ragioni secondo me potrebbe essere … e invece ci guadagni se vendi, allora mi vien da dire: ma Dio mio ma in che mondo viviamo?? Che cosa sta succedendo. Però non ti devi stupire di questo, il ragionamento è ancora quello di prima che ti stavo dicendo: non è che tu devi pensare ad un approccio al mercato in cui il mercato va nella direzione in cui vuoi tu; tu devi capire che puoi stare sul mercato se sei capace di interpretare i comportamenti del mercato, cioè i comportamenti della generalità. Non puoi andare contro il mercato. A meno che tu sia il mercato, cioè abbia quei mezzi, lavori sia in un contesto dove ti è consentito muovere quantità tali da concorrere a determinare l'andamento del mercato – io lavoravo al San Paolo, a volte non sull'obbligazionario questo ci succedeva – beh allora ti puoi permettere di dire: "vorrei che fosse così, e faccio in modo che sia così". No, è possibile che questo succeda per carità, ma se parliamo come normali investitori l'unica nostra preoccupazione deve essere quella di capire, se posso dire la psicologia del mercato; dice: "cosa vuole il mercato?", dice: "non vuole quello che vorrei io e allora è cattivo", no, allora sei stupido tu che ti illudi di poter credere che il mercato faccia quello che vuoi tu, che pensi come stai pensando tu; sei tu che devi sforzarti di pensare come pensa il mercato; non tu di credere di indurre il mercato a pensare come la pensi tu, altrimenti lascia perdere, se fosse così stanne più lontano possibile.

17. ***Lei ha detto che lo short selling ha 3 ragioni buone di esistere. L'hedging è più legato alla gestione del rischio, mentre arbitraggio e copertura sono più legati al profitto in sé per sé. Ecco, è possibile che lo short selling sia cambiato e mentre prima era più uno strumento di risk management, ora è più uno strumento di speculazione, oppure no?***

    Nel passato inteso come passato gli strumenti derivati non c'erano, però era possibile fare operazioni a premio, operazioni put, call, stella, etc … i premi. Però questo avveniva con metodologie molto diverse da Paese a Paese, per cui ogni paese era pressoché isolato rispetto agli altri, non esistevano i contratti derivati negoziati dai contratti regolamentati come succede oggi, che da che esistono sono strutturati in modo tra di loro uniformi. E quindi ti permettono di fare attività di arbitraggio sui derivati da mercato a mercato, e questi contratti derivati sono sostanzialmente analoghi in Italia Germania Francia, tutti hanno la stessa data di scadenza sono costruiti attorno ad indici costruiti in modo analogo, etc. oggi c'è più possibilità di fare attività di copertura di quanta ce ne fosse in passato; se prevalga l'attività speculativa attraverso speculazione e arbitraggio, su quella di risk management non saprei. Cioè è chiaro che in situazioni anomale di mercato come stiamo passando da ottobre del 2008, forse, probabilmente si potrebbe dire, prevalgono i comportamenti speculativi sui comportamenti di risk management. In un contesto ordinario forse, però è solo un ipotesi.

18. ***Come è possibile che coesistano l'efficienza dei mercati finanziari con uno strumento di speculazione, che in caso di totale efficienza non dovrebbe esistere?***

    Infatti la questione è che i mercati non sono efficienti. La speculazione e l'arbitraggio trovano spazio proprio in questo continuo aspirare all'efficienza dei mercati che non si raggiunge mai. Lo sappiamo benissimo, ci sono capitoli e capitoli di libri, che spiegano qual è la condizione ideale di un mercato efficiente, però tutti ti fissano di quelle condizioni che ti dicono e ti fanno capire che non esistono, quali l'assenza di spese, ecco, questo non significa che non si debba tendere verso l'efficienza, però siccome è praticamente irraggiungibile, gli spazi che vengono lasciati a comportamenti speculativi e di arbitraggio sono del tutto leciti e anzi permetto all'industria dei servizi finanziari di continuare a vivere; bastasse niente per poter aver prezzi fair su tutti i titoli in ogni istante, a cosa servirebbe? Sì, i servizi di negoziazione, basterebbero i servizi di collocamento: tu hai collocato un titolo, basta, uno se lo tiene perché tanto sa che è sempre il prezzo più corretto possibile e non ha bisogno di venderlo tranne per fare liquidità, voglio dire, ma sa allo stesso modo che lo venderà al prezzo più corretto che esiste, più corretto che esiste. È chiaro che come dici tu speculazione e arbitraggio non hanno ragione di esistere, perché sono stati superati dal fatto che tutti i prezzi sono fair e sono i più corretti.

19. ***Quali sono gli asset maggiormente utilizzati nello short selling?***

    Intanto, distinguiamo tra mercato azionario e mercato obbligazionario: le vendite allo scoperto possono – questa però è soltanto la mia idea, uno potrebbe avere ragioni per dire il contrario – se parliamo di titolo azionario, è ragionevole pensare che i titoli più utilizzati per attività di scoperto con finalità di copertura siano i titoli più grossi, quelli a più largo flottante; i titoli su cui si fa scoperto con rischio di abuso di mercato, probabilmente sono i titoli più piccoli, con flottante minore; diciamo: lo scoperto originato da comportamenti illeciti verosimilmente è quello che riguarda i titoli relativamente più piccoli; ecco poi ci possono essere casi come quello di 4 o 5 anni fa negli Stati Uniti, di cui mi sfugge il nome; lì si è trattato di un titolo particolarmente grosso. Come adesso si parla di lehman, allora si parlava di quello lì; sul lato del mercato obbligazionario invece questa attività di short selling ha senso soltanto sui titoli di largo o larghissimo flottante, quali i titoli di stato; diciamo che il mercato obbligazionario ha caratteristiche sue proprie particolari di essere un mercato estremamente polverizzato per quello che riguarda i titoli privati e di essere invece un mercato trasparente, seppur le negoziazioni avvengano su circuiti visibili e su circuiti OTC, però quelli visibili prevalgono. Allora questa attività di scoperto è un'attività intanto che si fa soltanto per dimensioni estremamente grandi e questo è permesso farlo soltanto su titoli che hanno un oustanding estremamente grande, quindi parliamo solo di titoli di stato. È difficile pensare che ci siano situazioni di questo genere anche sui covered bond, che sono diciamo la tipologia di titolo privato con un out standing più grosso, in circolazione normalmente. Per solito avviene e anche qui avviene attraverso prestito titoli OTC di banca Imi, cioè attività di scoperto che viene fatta prendendo a prestito titoli OTC, però è meno visibile; sono mercati, quelli dei titoli di stato che sono di dimensioni così grandi, che andare scoperti si può fare ma è particolarmente difficile, è difficile incidere sul prezzo, perché le logiche con le quali si formano i tassi sono meno volatili delle logiche con le quali si formano i prezzi sui mercati dei titoli azionari. Cioè tu puoi avere 2 titoli azionari che si comportano in maniera opposta, cioè il prezzo di uno sale enormemente e l'altro scende enormemente, non sono correlati tra loro i prezzi; sul mercato dei titoli pubblici, non puoi avere un titolo a 10 anni che sale enormemente e uno ad 8 anni che scende enormemente, cioè devono poter stare in modo logico sulla curva dei tassi e se ci fosse una situazione di disallineamento, questa verrebbe immediatamente coperta. Sono molto ma molto più liquidi, occorrono quantità molto ma molto più grosse, inimmaginabili, prescindendo dalle situazioni anomale, come il caso della Grecia, gli abusi di mercato, i contesti eccezionali, parliamo in un contesto ordinario e ragionevole, perché poi c'è la situazione della Grecia, o domani la Spagna, ma allora non è short selling, è cambiamento nella percezione del rischio dello strumento e sui titoli pubblici questo avviene in modo abbastanza visibile, perché sono titoli le cui quotazioni sono sotto gli occhi di tutti, sono estremamente diffusi, e per poterne muovere quantità che determinino flessioni rilevanti dei prezzi … non c'è confronto rispetto al mercato azionario, ecco.

20. ***Perché le vendite allo scoperto hanno bisogno di una regolamentazione? Solamente per proibire lo short selling cattivo o anche perché anche le buone hanno bisogno di un certo livello di controllo?***

La regolamentazione dovrebbe essere resa necessaria dalla limitazione necessaria per limitare o circoscrivere gli abusi di mercato, altrimenti le operazioni allo scoperto, perché le si dovrebbe comunicare al mercato? Allora perché non si comunicano le posizioni lunghe o il loro accumulo? Perché è negativo l'accumulo di posizioni scoperte e non è negativo l'accumulo di posizioni lunghe? Cioè, io non ci vedo la necessità; secondo me è diventato adesso negli ultimi contesti di crisi, un bisogno che prima non esisteva. Nel 1981-1982 ci sono state delle situazioni di grossa crisi del nostro mercato azionario, e allora ogni mercato lavorava a sé stante, e sono state realizzate delle forme di regolamentazione dello scoperto; è successo nel 1977, io ricordo che allora bisognava comunicare alla CONSOB via telex, allora non c'era nemmeno il fax, tutte le operazioni scoperte che la banca aveva in essere. proprio perché si è sempre immaginato che il comportamento speculativo che si concretizza, si manifesta in un'operazione ribassista sia da guardare con ostilità; io direi che se non è originato da abuso di mercato, ma è solo l'espressione di un riposizionamento delle aspettative, seppur rilevante, perché ad un certo punto dici: "questo titolo vale il 10% di meno, permettetemi di vendere". Borsa di Milano aveva la soglia al 10%, sospensione delle negoziazioni, rinvio della chiamata dei titoli – quando la borsa era ancora una borsa a chiamata e non era ancora telematica – e in coda a tutti il titolo veniva richiamato per dare tempo a tutti di farsi un'idea di quello che stava succedendo e di confermare un'altra volta l'intenzione di operare con prezzi molto più bassi del 5 o anche del 10%, a seconda delle soglie; il meccanismo operava anche al rialzo; però la vendita allo scoperto è stata sempre vista come un qualche cosa di negativo, probabilmente per un riflesso condizionato. Mentre invece se fosse depurato dagli abusi di mercato, non è in sé negativo, è soltanto un prendere coscienza del fatto che un titolo vale di meno di quello che si è immaginato valesse fino a quel momento perché sono ragionevolmente cambiate le aspettative.

21. ***Per quale motivo gli abusi di mercato legati allo short selling hanno questa visione da parte degli investitori, mentre gli abusi di mercato legati a prospettive al rialzo no?***

    No, gli articoli 180 – 181 e seguenti del Testo Unico della Finanza individuano gli abusi di mercato in 2 specie, configurano dei casi pratici e da questi casi pratici non si scappa ecco; gli abusi di mercato sono posti sullo stesso piano a prescindere dal fatto che provochino effetti ribassisti o rialzisti. Nel testo unico non si discerne tra short selling e altre robe, si parla solo e unicamente di abusi di mercato. Allora nel momento in cui la vendita allo scoperto si realizza tenendo comportamenti che sono riconducibili ad abuso di informazioni di mercato o a manipolazione del mercato, è chiaro che questa attività va penalizzata, va sanzionata, va evitata, va impedita; la CONSOB questo dice, dice: "lo short selling in sé individua degli effetti positivi, una maggiore efficienza del mercato, possono dare più liquidità al mercato, comportano di rischi di regolamento, se io non ho i titoli, ma in sé non sono da vietare" e non intende vietarli se non attraverso la trasparenza. Il massimo che possono fare è accettare di dare trasparenza; se viceversa li vietiamo e li impediamo, facciamo di tutto per far sì che non si verifichino, se hanno, se trovano origine, in una di quelle situazioni che vanno sotto il titolo di abuso di informazioni privilegiate e manipolazione del mercato. Allora sì, in questo caso sì; ma vanno impediti non in quanto short selling, ma in quanto manifestazione di abuso di mercato.

22. ***Come mai alcune volte lo short selling viene bloccato solo su alcuni titoli, mentre su altri è consentito? Solo per preservare il titolo oppure ci sono anche altri motivi?***

    Io credo che sia ancora il ragionamento: lo facciamo sotto la pressione degli eventi. In effetti, perché succede così? Anche in Italia non si è partiti da un divieto assoluto su tutti i titoli. Erano solo su certe categorie di titoli: allora si parte dall'idea che questo sia un fatto negativo e lo si ricollega probabilmente ai settori rispetto ai quali il fatto negativo potrebbe incidere di più: qui abbiamo sotto pressione assicurazioni e banche per una molteplicità di ragioni e allora dice prima di tutto, nessuno si è intestardito nel dire "evitiamo lo short selling sull'Enel e sull'Eni?" no, perché evidentemente non si sono ritenuti settori nei quali si potessero manifestare comportamenti cattivi; eppure su Enel ed Eni lo short selling si è comunque verificato, si è solamente cercato di limitarlo rispetto ai settori che potevano riceverne il maggior danno. Ma proprio perché non esiste una disciplina comune, non esiste una disciplina dello short selling consolidata. E allora si va a tastoni per il momento. Poi aggiungo che probabilmente nessun organismo di regolazione si sente per prima lei di dire: "vi dico io come si deve fare". Tutti sanno che l'Unione Europea ha in mente una direttiva o un regolamento, tutti prendono posizioni normative che si affrettano a dire essere provvisorie e temporanee in attesa di una valutazione comune.

23. ***Ci sono differenze tra investitori privati e società pubbliche a livello di regolamentazione? O riguarda lo short selling in sé per sé?***

    Non saprei, magari leggendo le delibere CONSOB forse c'è qualche distinzione a livello di titolo, ma personalmente non saprei.

24. ***Per quanto riguarda l'aggiramento delle regolamentazioni tramite posizioni aggregate, lei può farmi qualche esempio di struttura finanziaria o combinazione di strumenti finanziari che sono in grado di aggirare le vigenti regolamentazioni?***

    Per esempio se io ho comprato un premio call e vendo dei titoli, non sono tecnicamente del tutto scoperto, perché a fronte della mia vendita a pronti ho una call, una posizione titoli che posso decidere di non esercitare. Come si può dire che io sia effettivamente scoperto.

25. ***Per esempio se ho comprato un premio call e poi non lo esercito, a priori non sono scoperto perché ho gli stessi titoli in vendita e in acquisto, però poi non esercitando la call…***

    ...allora la mia posizione netta che appare pareggiata, in realtà è negativa. Si, non saprei andare oltre, si potrebbe lavorare e cercare di costruire anche con i future. Si potrebbero costruire tante situazioni, ma non saprei dirtele così su due piedi.

26. ***Come fa poi la CONSOB a contenere questo tipo di operazioni finanziarie?***

Non è facile, però diciamo che c'è un doppio livello di controlli: le funzioni compliance all'interno degli intermediari sono obbligate a monitorare tutta l'attività che viene svolta e a verificare che non sia contraria alle norme e se esistesse una norma che impedisce lo short selling o una norma che disciplina lo short selling nel senso che ti impone di dare report alla consob facendo capire qual è la posizione netta, il compito della funzione compliance all'interno dell'intermediario o della banca, non è soltanto quella di trasmettere le posizioni alla consob ma anche quella di farne uno scrutinio interno e valutarne la medesima funzione compliance la rispondenza alle norme. Il responsabile compliance risponde direttamente al direttore generale o a qualcun altro a seconda di come poi sono strutturati. Insomma ne va della sua testa; se ha la percezione che ci sia un comportamento di questo genere che tende a manipolare le posizioni dando a vedere che si tratta di posizioni pareggiate e invece sono scoperte, viene meno alla sua funzione: questo come primo livello interno. Poi, la consob può sperimentare nella pratica i comportamenti degli intermediari: bene tu sei pareggiato, ma poi ad un certo punto sei anche scoperto perché hai la facoltà di acquistare ma non la eserciti e pareggi la posizione con un acquisto successivo sul mercato, operando magari a posteriori. Non è molto diverso da così: la prima volta la passi, la seconda pure, alla terza ti chiamano e ti chiedono "adesso dimmi perché la prima e la seconda volta hai fatto una cosa di questo genere"; voglio dire poi è empirico questo gioco, non è che sia … se le regole non possono essere così ferree, si va sull'analisi empirica, un po' come la GdF che va a fare i controlli a casa. Non è facile trovare gli evasori, però ci sono indizi che permettono di scoprirne qualcuno, magari non tutti ma qualcuno di andarlo a prendere.

27. ***Quali sono i rischi associati allo short selling, dal punto di vista del sistema finziario, del venditore, del compratore e degli organi di regolamentazione?***

Dunque, il rischio per il sistema finanziario è l'abuso di mercato, cioè qual è l'effetto negativo che deriva dallo short selling il fatto che uno realizzi attività di short selling motivate o che traggono origine da abuso di informazioni privilegiate o da manipolazione del mercato. Questo è il rischio per il mercato. Poi tecnicamente per i singoli soggetti c'è il rischio di regolamento, perché cosa succede, io devo consegnare – e questo è un rischio che poi è diventa anche sistemico – un milione di fiat che ho venduto allo scoperto, le cerco in prestito titoli, non le trovo, il terzo giorno sono insolvente. Allora a questo punto io sono insolvente, dovevo consegnare i titoli a un compratore che a sua volta li ha venduti allo scoperto e allora il rischio diventa sistemico per cui si innesca un meccanismo che determina un fallimento di una sequenza di soggetti nelle procedure di regolamento di quel titolo in quella giornata perché il primo lo doveva dare al secondo, il secondo al terzo e così via … il primo li ha venduti sperando di farmeli prestare da qualcuno, sperando di trovarli, non li ho, a questo punto potrebbe intervenire Monte Titoli e prestarli; ci sono delle regole particolari, delle tecnicalità particolari per il prestito fatto da Monte Titoli, se io passo per il mercato regolamentato, ma se io non passo per monte titoli il rischio di regolamento sul mercato esiste, originato da un'attività di short selling nuda.

28. ***Mentre invece dopo il prestito dei titoli?***

Dopo prestito titoli va bene: dunque allora, io non ho i titoli: un conto è dire "io ho i titoli in un deposito amministrato", oppure "io ho i titoli che mi vengono da un venditore" e io li vendo; ma se io questi titoli non li avevo è chiaro che io genero una situazione di difficoltà rispetto alla mia stretta controparte – il compratore – perché lui non riceve i titoli e a sua volta non li può dare, ma va anche in difficoltà il mercato e quindi questo ha sicuramente un effetto negativo, cioè è uno degli effetti negativi; cioè se dall'altra parte c'è una migliore efficienza informativa dei prezzi, c'è una migliore liquidità del mercato, etc. … qui c'è addirittura una situazione di rischio che non compensa gli effetti positivi, perché addirittura può mandare in difficoltà il mercato nella catena dei regolamenti di quella giornata.

29. ***Per quanto riguarda il rischio sul titolo invece, per esempio io scommetto che il titolo vada in ribasso e invece va al rialzo e io non ho possibilità di reperire il titolo per coprire la mia posizione …***

E io rimango scoperto e rischio di doverlo ricomperare a prezzi particolarmente alti, quindi non solo non ho ottenuto l'effetto di avere ottenuto un guadagno, ma ho anche una perdita … cioè se io vendo, e non consegno i titoli, poi neanche incasso, quindi io a mia volta che dovevo pagare qualcuno perché i titoli da qualcuno li avrò cercati, e non ho nemmeno la liquidità, se il prezzo del titolo invece di scendere sale, rischio di dovermi ricoprire a prezzi più alti, mi trovo in una situazione difficile, ecco queste sono le situazioni limite, voglio dire, è vero che possono capitare, ma ne capita una su 10, 1 su 100 di situazioni di questo genere, il resto vanno a posto almeno dal punto di vista del regolamento dell'operazione. Non è in questo che dobbiamo vedere secondo me pericoli, se pericoli ci sono dallo short selling. Non sono da non considerare, però non sono secondo me i maggiori rischi che può porre lo short selling che secondo me comporta dei rischi e ha effetti negativi sul mercato solo se questa operatività deriva dall'abuso di informazioni sul mercato.

30. ***C'è un motivo specifico o pratico per scegliere tra vendite allo scoperto e vendite allo scoperto nude?***

Beh dipende solo se c'è disponibilità dei titoli o meno, ma a volte anche il prestito titoli non è che sia facile da realizzare: dunque un soggetto che fa prestito titoli professionalmente, sa sempre dove andare a trovare i titoli. Vai dai fondi comuni e trovi sostanzialmente qualsiasi titolo, non sulle gestioni patrimoniali ma sui fondi comuni, trovi qualsiasi titolo. Al più possono essere problemi di quantità. Poi un altro motivo per scegliere tra l'uno e l'altro può essere il costo dell'operazione. Il prestito titoli ha un costo, mentre la vendita allo scoperto, se riesci a farla intraday, ti è quasi gratis se ti va bene il trend. Tuttavia non credo che basti farlo così, intraday per avere grandi risultati; occorre avere dei margini di tempo, insomma. Nella nostra regolamentazione si fa fatica: o li hai in prestito titoli, o hai qualcuno che te li da, o li prendi da una posizione che non è tua, ma bisogna stare attenti , non si può andare sui depositi della clientela a prelevare i titoli e utilizzarli per la consegna, insomma. Prestito titoli dovrebbe essere la forma più corretta, adatta a realizzare questa attività; hanno un costo e il costo lo metti a confronto con l'obiettivo di profitto che ti prefiggi.

31. ***Parlando di analisi fondamentale, analisi tecniche etc., se la tendenza per esempio dell'economia è al ribasso mentre l'analisi fondamentale mostra una società sana, lei venderebbe allo scoperto?***

    Io credo che se parliamo di titoli azionari io credo che la vendita allo scoperto non sia in funzione della tendenza del mercato nel suo complesso, ma in funzione delle aspettative su quel specifico titolo. Cioè tu mi vuoi dire se esiste un legame tra tendenza generale dell'economia e realizzabilità delle operazioni di short selling?? No io non ne vedrei, il mercato azionario è un mercato sì che si muove tutto al rialzo o tutto al ribasso; quando si muove al rialzo spiccatamente per un titolo, o al ribasso spiccatamente per un titolo, non si muove sulle tendenze dell'economia, si muove sulle aspettative su quel particolare singolo titolo e per ragioni legate esclusivamente a regioni societarie. Non ci vedrei un legame economia del paese-andamento del prezzo di un singolo titolo.

32. ***Quindi in sostanza lei ritiene più valide le indicazioni fornite dall'analisi fondamentale piuttosto che dall'analisi tecnica, per quanto riguarda le vendite allo scoperto.***

    Allora, per analisi fondamentale intendiamo le analisi sui dati di bilancio e le prospettive di vita della società, per analisi tecnica riteniamo l'andamento delle tendenze di mercato determinate dalle quantità scambiate. Ecco, allora non avevo capito la domanda, pensavo ti riferissi ad un raffronto con l'andamento generale dell'economia di un paese. Secondo me lo short selling è sui fondamentali, non è sulle analisi tecniche.

33. ***Spesso i venditori allo scoperto professionali si basano sull'analisi fondamentale cercando titoli eccessivamente sopravvalutati per esempio e rilevano il mispricing, mentre gli analisti non riescono ad individuare questo divario, come mai? Analizzano un numero minore di imprese? Hanno una rete di informatori o semplicemente seguono analisi diverse, come mai?***

Intanto gli analisti lavorano separatamente dai negoziatori. Probabilmente hanno una capacità di stare sul mercato … prescindiamo da quei soggetti che compiono abusi di mercato, limitiamoci alle vendite scoperte buone. Allora, dovremmo limitarci a quelli con finalità speculativa. Perché se hanno finalità di arbitraggio, potrebbero essere arbitraggi coperti nel senso vendi da una parte compri dall’altra … se sono finalità di hedging non c’entrano, quindi sono le finalità speculative; allora si potrebbe dire: come mai attività speculative di short selling possono indurre i soggetti negoziatori a vendere titoli che magari non sono suggeriti quanto a vendita dagli analisti? Avranno una capacità di percepire le tendenze di mercato, avranno informazioni, tieni conto che a volte ci può essere collusione nei comportamenti di mercato, si parlano tra loro … non saprei dirti di più, se non il fatto che hai la percezione che può essere utile vendere quel titolo e lo fai indipendentemente da quello che ti dicono gli analisti. Gli analisti magari hanno informazioni sull’analisi fondamentale, perché è chiaro che loro lavorano su quella prevalentemente, però tu potresti avere chi lo sa, qualche informazione in più o avere aspettative che un analista non riesce a farsi stando seduto dove è seduto.

34. ***Qual è la sua opinione circa la teoria delle random walks? Lei crede che i prezzi siano del tutto imprevedibili oppure la teoria delle random walks vige solo perché nessuno ha ancora individuato o calcolato una formula o una legge per prevedere i prezzi?***

    Io tornerei a quello che dicevo prima, tutti quanti possiamo avere una nostra idea sui prezzi, questo conta poco; quello che conta è riuscire ad avere un idea che sia quanto più prossima a quella che ha il mercato; chi è capace di avere un’idea quanto più prossima rispetto a quella che ha il mercato dei titoli, allora riuscirà a performare meglio sul mercato, questo non significa che i prezzi vadano a casaccio, significa che le aspettative sul mercato sono anche un qualcosa di autorealizzantesi, nel senso che se abbiamo aspettative positive e teniamo comportamenti coerenti con le aspettative positive possiamo concorrere a far sì che il mercato abbia andamento positivo e così al contrario. Allora non credo dicendo questo che i prezzi si formino a casaccio. I prezzi si formano in funzione delle aspettative ma quello che ci dobbiamo mettere noi è la capacità di riuscire a capire che cosa il mercato si aspetta che succeda, non quello che ci aspettiamo noi, ma che cosa il mercato si aspetta che possa succedere; se noi riusciamo a ragionare così e a svincolarci da quello che è la nostra aspettativa, allora riusciamo a cogliere le tendenze che il mercato realizzerà, non è facile, perché è un esercizio sicuramente difficile e che non è adatto a persone fisiche o a uno come me che sta seduto in casa, occorre avere molte informazioni, occorre avere continuamente la capacità di sapersi confrontare sul mercato, però ripeto, a meno di avere mezzi ingentissimi e diamo per scontato che non sia così da parte di nessuno, la tua capacità di stare sul mercato deve essere quanto più slegata dalle tue visioni del mercato e deve essere quanto più vicina possibile alla percezione di quello che il mercato nel suo complesso voglia fare. Contro il mercato non si può andare mai, semmai la regola deve essere quella di riuscire a capire, interpretarlo e anticiparlo in quello che intenderà fare. In questo senso, ripeto, penso che il fatto che i prezzi si formino a caso non credo sia, a meno di dire che i mercati si comportano a caso, ma non credo che sia così, i mercati si possono interpretare, si possono capire, e occorre cercare di anticiparli, ripeto disfacendosi dei propri modi di pensare e cercando di pensare come pensa il mercato; può sembrare una cretinata in sé però non c'è altro modo, sicuramente secondo me non si comportano a caso. È solo una teoria sul funzionamento del mercato, alcuni dicono che i mercati hanno un andamento casuale, insomma. Io non credo che sia così. Occorre affinare la capacità, che non vuol dire avere dei bravi analisti, io credo più nella capacità di stare sul mercato, di essere continuamente presenti sul mercato di colloquiare con quanti più altri operatori possibili, non isolarsi assolutamente dal mercato immaginando di avere chissà quale sfera di cristallo, ma conforntandosi continuamente e stando lontani a volte dalle proprie idee per cercare di capire meglio quali sono le idee della media del mercato. Perché poi il mercato va in quella direzione, e non nella direzione delle mie idee, o solo casualmente va nella stessa direzione, ma allora occorre che le mie idee siano le stesse della media del mercato.

Appendix 4. Regulation SHO

Regulation SHO is one of the recent updates in terms of short selling regulation. It is a regulation issued by the US financial authority (the SEC, Security and Exchange Commission) but it stated general concepts that have then been followed also by other financial authorities.

Hereby, leaving out common definitions regarding the market and so on, the main key features are listed[64]:

- "Establishing uniform "locate" and "close-out" requirements in order to address problems associated with failures to deliver, including potentially abusive naked short selling":
    1. Locate Requirement: the broker must have reasonable beliefs that the security can be borrowed; the locate must be documented prior to effect the short sale. *The goal of locate requirement is prevention of fails*;
    2. Close-out Requirement: with limited exception, brokers and dealers are required to take action to "close-out" failure-to-deliver: it means to purchase securities of like kind and quantity;
- The settlement of security transactions is T+3 days, referred both to the payment in case of purchase and to delivery in case of sale;
- The SROs publish monthly statistics on *short interest* in securities that trade on their markets. Short interest is the aggregate number of open short sale positions[65]. Short interest does not address the number of fails to deliver that may have occurred or may occur in connection with short sales.
- Uniform Order Marking: the orders placed with brokers have to be marked as "long", or "short";
- Definition of threshold securities: equity securities that have an aggregate fail to deliver position for:
    1. Five consecutive settlement days at a registered clearing agency (e.g., National Securities Clearing Corporation (NSCC));
    2. Totaling 10,000 shares or more;
    3. Equal to at least 0.5% of the issuer's total shares outstanding.

[64] http://www.sec.gov/spotlight/keyregshoissues.htm.
[65] In this case, aggregate position means the whole amount of short positions open on a certain security and belonging to all investors having that security in portfolio.

- *Any form of naked short selling is forbidden*. An exemption to this rule is represented by market makers that are not forced to locate the security prior to short selling because "they need to be able to provide liquidity".