

## REGULATION, INSIDER TRADING AND STOCK MARKET REACTION. WHAT DO WE KNOW?

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### **Abstract**

*A large number of theoretical papers have focused on finding the right regulatory inputs that trigger the development of domestic stock markets. The majority of empirical papers find a positive connection between investor protection and stock market development, proxied by turnover, market capitalization or volatility. When talking about investor protection, insider trading oftenly appears as a major research objective when proving the beneficial role of regulation on stock markets. The objective of this paper is to review the main arguments that were brought for and against insider trading regulation, alongside analyzing the documented cases of market reaction to the introduction and enforcement of insider trading disclosure.*

**Key-words** *investor protection, inside trading, stock market, regulation*

**JEL Classification:** *G14, G15, K22*

### **1. INTRODUCTION**

A large number of theoretical papers have focused on finding the right regulatory inputs that trigger the development of domestic stock markets. The majority of empirical papers find a positive connection between investor protection and stock market development, proxied by market liquidity, turnover or market capitalization. When talking about investor protection, insider trading oftenly appears as a major research objective when proving the beneficial role of regulation on stock markets. Indeed, as we will show in the next paragraphs, the reputation is a main issue for a stock market, the mere belief that a market can be manipulated or that the managers or the persons that control the listed companies could inside trade creates an immediate market reaction. However, this reaction differs in intensity, when comparing the U.S. with the European markets, and that might have to do with the stringency of the regulatory framework. The objective of this paper is to outline the main arguments that were brought for and against insider trading regulation, alongside analyzing the documented cases of market reaction to the introduction and enforcement of inside trading disclosure.

### **2. ARGUMENTS FOR AND AGAINST INSIDER TRADING REGULATION**

"Insider trading" is a term that we must often associate with an illegal conduct. However, insider trading includes both illegal and legal behaviour. The legal one implies that people working in a company, the so called "corporate insiders" (employees, managers, directors) are buying or selling stock of their own companies, basing their investment judgement on already public

information. U.S. Securities and Exchange Commission (SEC) imposes that trades by corporate insiders must be reported immediately, so they can be made available to the public. The illegal act is when those insiders trade their own securities, by taking advantage of confidential, nonpublic information about that security that has a substantial likelihood to affect the price of a security if made public. Illegal is also the act of tipping others when you possess nonpublic information.

Currently, the concept of investor protection is of great importance in the modern design of stock market regulation in both United States and European Union countries, although more recently tackled in the latter. Some authors argue that the enforcement of inside trading is traditionally more aggressive and effective in U.S., but the European financial markets have known significant regulatory changes, in order to ensure protection from the behaviour of insiders. Through these changes in the EU financial services legislation, we mention:

- The Directive 2003/6/EC of the European Parliament (Market Abuse Directive - MAD), which set minimum standards for insider dealing and market manipulation for financial instruments trading on regulated markets and derivatives based on such instruments;
- MIFID II (Markets in Financial Instruments Directive 2004/39/EC) which will start applying in all EU member states beginning with 3 January 2018, that will improve the functioning of financial markets, making them more efficient, resilient and transparent;
- Regulation 596/2014 (Market Abuse Regulation-MAR), which set out a new regime that tackled "unlawful behaviour" in stock markets, including here inside trading, market manipulation and insider information and which expanded the market manipulation rules to financial instruments trading on multilateral trading facilities and organized trading facilities and to related derivatives, certain commodities contracts and benchmarks;
- Directive 2014/57/EU of the European Parliament on Criminal Sanctions for Market Abuse, which provide adequate penalties for market abuse violations.

We can say that the theme of inside trading was academically documented beginning with the work of Manne (1966) which advocated at that time for a less restrictive regulatory framework as far as concerns inside trading, aiming to prove that inside trading is exactly what enhances the informational role of stock prices, making the stock markets more efficient. He sees inside trading as a form of contemporaneously reward for entrepreneurs, which see the innovation and make it happen or sell the information to the others with adequate financial support. His view according to which inside trading has a rewarding character for managers and makes them less conservative, taking risks and fostering innovation was also supported by Fishel and Carlton (1982) and two years later by Dye (1984) which see inside trading as a sort of compensation mechanism for managers, which enables them to create utility for shareholders, by adding value to the company. On the same pattern of thinking, came later the papers of Easterbrook (1981), Bebchuk and Fershtman (1993), Noe (1997). Bhattacharya and Daouk (2000) prove on the case of 51 countries for a period of analysis of more than 20 years that insider trading regulation and enforcement bring positive effects for the stock markets, by reducing the cost of capital. In one of his latest interviews, in 2003, Milton Friedman argued that strong regulation of inside trading is a mistake, claiming "you want more insider trading, not less. You want to give the people most likely to have knowledge about deficiencies of the company an incentive to make the public aware of that".

On the other side, there is a large body of literature that offer strong arguments against inside trading and militate for a sound regulation against it. Through the arguments, the increase of the agency cost is brought forward by the distortion of the managerial wage-setting process, posing the possibility of the managers to sabotage the compensation schemes in order to be paid to productivity (Kraakman (1991). Bhattacharya and Daouk (2002) show that, on a stock market where inside trading is not accordingly regulated an encourages impunity, the equity cost is higher,

in search of better return-risk ratios by the investors. Thus, a "free-rider" phenomenon is generated, leading investment towards more regulated stock markets and increasing the cost of capital for the less regulated ones.

### 3. MARKET REACTION TO INSIDER TRADING

The empirical studies based on illegal insider trading are pretty scarce, due to the difficulty of obtaining non-official data, that would incriminate such acts. With the exception of one study, that aimed at quantifying the market reaction to illegal insider trading (Meulbroke (1992)), the majority of the empirical research (after the '90) is based on self-reported legal trading by corporate insiders and focus mainly on U.S. or UK market reactions.

In general, the studies that have focused on analysing the market reaction to insider trading have focused on top executives' trades. Since the new regulation concerning the reporting of insider trading transactions became effective more later in the European countries (with the adoption of the Market Abuse Directive), the analysis time frame for empirical research pointing out to European countries is quite recent and the number of papers quite scarce.

In these studies, the main research objective is connected with the informational content of the legal insider trading. The general hypothesis is that insiders' purchases represent a positive signal for the market, whereas investors' sells provide a bad signal. The authors generally use in their methodology the event study approach, based on cumulative average abnormal returns (CAR) registered after the insider trade announcement. The authors take into consideration in their analysis the position of the insider trader within the company (top executive or others), shorter and longer term windows to depict the specific stock price movement after the insider trade announcement (starting with the trading day itself), or the size of the company (small and large) (Table 1).

**Table 1**

#### European market reaction to insider trading

| Authors                    | Sample               | Period of analysis | Methodology                                                       | Results                                                                                                                                                                              |
|----------------------------|----------------------|--------------------|-------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Dardas and Güttler (2011)  | 8 European countries | 2003-2009          | Event study approach based on cumulative average abnormal returns | Directors' transactions are informative for the market; stronger short-term announcement effect in the countries that have translated the directives into their regulatory framework |
| Betzer and Theissen (2008) | Germany              | 2002-2004          | Event study approach                                              | Large abnormal returns after insider trading                                                                                                                                         |
| Bajo and Petracci (2006)   | Italy                | 1998-2002          | Event study approach                                              | Legal insider trades followed by abnormal returns, 3,18 % after purchases and -3.67 % after sales                                                                                    |
| Fidrmuc et al. (2006)      | UK                   | 1991-1998          | Event study approach                                              | Directors' purchases and sales lead to important market reactions (of 3,12 % and -0.37 %, respectively)                                                                              |
| Degryse et al.             | Netherlands          | 2002-2007          | Standard event study                                              | Higher information                                                                                                                                                                   |

|                                    |                              |           |                                 |                                                                                                                                                                                                                         |
|------------------------------------|------------------------------|-----------|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (2006)                             |                              |           | approach<br>Regression analysis | content for purchases than for sales, for top executives' trades, rather than other insiders and for small rather than large firms; Top executives' sales following the MAD implementation were less information driven |
| Del Brio, Miguel and Perote (2002) | Spain                        | 1992-1996 | Event study approach            | Positive reaction to sales announcement                                                                                                                                                                                 |
| Fidrmuc et al. (2000)              | 15 European countries and US | 2002-2007 | Regression analysis             | Stronger corporate governance leads to stronger market reaction to insider transactions                                                                                                                                 |
| Eckbo and Smith (1998)             | Norway                       | 1985-1992 | Event study approach            | No significant abnormal returns for purchase months                                                                                                                                                                     |

**Source:** realized by authors

Representative papers find a connection between legal insider trading and market volatility, especially in what concerns the manager purchases, showing that the market follows this past-insider trading activity (Gregory et al. (1997); Meulbreouck (2000); Lakonishok and Lee (2001), Jeng et al. (2003); Betzer and Theissen (2008), Degryse et al. (2006)). There are some authors that also support the idea that the reaction of the stock market, quantified as average cumulated abnormal returns, is not significant for purchases over the short run, but more over the long run (Aktas et al. (2007)).

Fidrmuc et al. (2000) prove that the market reaction to insider transactions is positively influenced by the investor protection level in each country. By analysing the case of 100.000 insider purchases in 15 European countries and U.S., they empirically prove that in the countries with stronger investor protection, the market reaction is more strong and precise to insider trading. They conclude that better corporate governance leads to price effectiveness, that reflect in a more accurate way the fundamental firm value.

Dardas and Güttler (2011) prove, on a sample of 8 European countries, that insider purchases, rather than insider sales are more likely to generate a signalling effect on the stock market, arguing that the market is rather careful to purchases (there are multiple reasons for which a stock can be sold, but only one reason for which it is bought). Moreover, they outline the importance of the volume of insider trading (large trades vs. small trades) on the intensity of market reaction, and also on the influence of the hierarchical position of the insider trader on the announcement effect, showing paradoxically, that the strongest announcement effects, are not generated by the trades of top-level executives.

More recently, Denis and Xu (2013) examine the effect of insider trading regulation on corporate risk-taking, on 38 countries for a time range of 13 years (1990-2003) and find that corporate risk-taking, which they assume beneficial for the firms, is positively associated with insider trading, proving the role of insider trading regulation in a country. In the same year, Ebrahim and Black (2013) show the effectiveness of corporate governance mechanisms in alleviating the shortcomings of existing regulation on insider trading.

Other papers argue that the different reaction of the markets to insider trading regulation and enforcement might come from their level of development and extrapolating the results of an

empirical study with application on a strong regulated market on a less regulated and transparent stock market, where insider trading may be assumed to occur frequently and the market reaction could be more dramatic, would be an error (Du and Wei (2003); Cheuk et al. (2003); Fernandez and Ferreira (2009)).

There is also a large body of literature that takes as documented the influence of the insider traders' market behaviour on the predictability of the market returns and on the timing of the market. Their focus is however on disentangling between the triggering elements of future market movement (the source of predictability). More precisely, they aim on quantifying whether it is the contrarian investor behaviour or the higher level of information of managers the one that better explains the stock market returns.

Piotroski and Roulstone (2005) document that insider traders are both contrarian investors and possessors of superior information, finding empirical evidence for a positive relation between insider trades and firm's future earnings performance, as well as book-to-market ratio, while they find a negative relationship with the recent returns. Lakonishok and Lee (2001) conclude that the predictive ability of aggregate insider trading is the one moving market returns, given the contrarian investor behaviour of insider traders. Ke et al. (2003) argument that insider trades are able to time the market due to the superior knowledge of insiders about the future cash-flows.

#### 4. CONCLUSIONS

Insider trading issue has been a largely debated research theme, in law, economics and finance literature starting with the seminal paper of Manne (1966). However, the majority of the papers have focused on U.S. or U.K. markets, and more recently, on developed economies, failing to provide answers for less developed European stock markets, where the effects of insider trading could be more dramatic.

The main conclusions that can be depicted from the majority of empirical research suggest that:

- the market reaction to the announcement of insider traders' (directors) purchases is positive, whereas it conveys a positive signal for the market regarding the future value of a firm;
- the market reaction to the announcement of insider traders' (directors) sales is negative, and lower in magnitude, whereas it has lower informational importance given the fact that it is also associated with the liquidity purpose and not necessarily to negative information.

The empirical literature is far from over in this respect and still lacks research based on illegal insider trading, which is hard to achieve, due to the unavailability of data and to the rare cases of insider trading prosecutions within European countries.

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