TRADING STOCK ON INSIDE INFORMATION

Kamil Mazurkiewicz
Maria Curie Skłodowska University, Poland
kamilieczena@wp.pl

Elżbieta Wrońska-Bukalska
Maria Curie Skłodowska University, Poland
elzbieta.bukalska@umcs.lublin.pl

Abstract:
The main subject of this paper is insider trading (trading on undisclosed information). Inside information is the result of separation of ownership and management. Both parties possess different information (asymmetric information) and managers hold more thorough knowledge on the company than outside investors. The primary explanation of asymmetric information on the company between directors and investors is provided by the agency theory. It states that asymmetric information is an inherent element of every corporate that separates ownership and management. There are different ways of mitigating this asymmetric information though it is not possible to eliminate it. One way of mitigating is the obligation to publish important information on the company. Trading on disclosed information is a prerequisite for efficient market and fair trade. It is rudimentary for every market to be efficient to allow allocation of the resources in an optimal way. In most countries trading on undisclosed information is illegal. The article aims to identify the number of insider trading on different stock exchange markets. The article analyses the numbers of insider trading cases from three stock exchanges in three different countries (Poland, the US, and China). The measure is based against the total number of issuers to make it more relative. These countries differ largely; they have got different cultures, corporate government systems, insider trading laws. While comparing these three different countries, we found similarities in the number of insider trading cases.

Keywords: insider trading, agency theory, market efficiency, knowledge, information, intelectual capital
1. INSIDER TRADING – LITERATURE OVERVIEW

Insider trading” is a term that most investors have heard and usually associate with illegal conduct. But the term actually refers to both legal and illegal conduct.

Insider trading occurs legally when corporate insiders—officers, directors, and employees—buy and sell stock in their own companies. When corporate insiders trade in their own securities, they are required only to report their trades to the financial supervision committee.

There is a fine line between legal and illegal insider trading. Insider trading is restricted and illegal only at certain times and under certain conditions. These conditions refer to three areas of insider trading:

- person,
- information,
- time.

**Person**

One frequent misconception is that only direct or upper management can be accused of insider trading. Anybody who has material and nonpublic information can commit such an act. This means that nearly anybody - including brokers, family, friends and employees - can be considered an insider. The best known case is the one of Martha Stewart, who was convicted of charges related to the ImClone insider trading affair in 2004 in spite of not being an employee of the Company (Definition of Insider Trading 2014).

Examples of insider trading cases are those against:

- corporate officers, directors, and employees who traded the corporation's securities after learning of significant, confidential corporate developments;
- friends, business associates, family members, and other “tippees” of such officers, directors, and employees who traded the securities on receiving such information (if only overheard in the pub, restaurant, or bar);
- employees of law, banking, brokerage and printing firms who were given such information to provide services to the corporation whose securities they traded;
- government employees who learned of such information by virtue of their employment with the government; and
- other persons who misappropriated, and took advantage of confidential information from their employers.

**Information**

The grounds for insider trading might also be provided by the information on the basis of which a given person can run trading. But not every information give grounds to illegal insider trading. It must be information that might be defined as being material, if its release could affect the company's stock price (price sensitive information). The following are examples of material information: the announcement that the company will receive a tender offer, the declaration of a merger, a positive earnings announcement, the release of the company's discovery such as a new drug, an upcoming dividend announcement, an unreleased buy recommendation by an analyst and finally, an exclusive interview with a Board member to be issued in the financial news column in the near future. Because the information is not available to other investors, a person using such knowledge is trying to gain an unfair advantage over the rest of the market.

**Time**

Insider trading occurs when a trade has been influenced by the privileged possession of corporate information that still has not been made public (Yong-Chul & Weimin, 2011).

To sum up, illegal insider trading refers generally to buying or selling a security, the breach of a fiduciary duty or other relationship of trust and confidence, while in possession of material, nonpublic (inside) information about the security, no matter who is in possession of this information (insider or outsider) (Cheng & Lo, 2006).
There is quite a big number of studies dealing with insider trading. Insider trading research began in 1970s (Jaffe, 1974). Many of a number of empirical studies provide evidence that corporate insiders use private information to trade strategically their own shares around corporate events and gain significant abnormal returns. Several studies have shown that insiders possess information advantage over other market participants by documenting significant abnormal returns following trading by insiders (Lakonishok & Lee, 2001). However, these studies do not specifically identify the type of information insiders trade on. Other studies link insider trading to specific information events such as new issue announcements (Karpov & Lee, 1991, Korczak & Korczak & Lasfer 2010.), stock repurchase announcements (Lee & Mikkleson & Partch, 1992), bankruptcy news (Seyhun & Bradley, 1997), or dividend announcements (John & Lang, 1991). The evidence in these studies is consistent with managers having private knowledge of such information and capitalizing on it through trading prior to its public disclosure. (Penman, 1982) studies insider trading around managers’ voluntary earnings forecast disclosure and finds that managers opportunistically trade around earnings forecast. (Noe, 1999) also examines the relation between management forecast and insider trading. He finds evidence of insiders taking advantage of the long term prospects of the firm but finds no evidence of opportunistic trading in the short window before voluntary disclosures. A more frequent, and arguably more important form of information event is the quarterly earnings announcement. (Sivakumar & Waymire, 1994, Ke & Huddart & Petroni, 2003) examine the relation between insider trading and mandatory quarterly earnings news, which is also the subject of our study. (Sivakumar & Waymire, 1994) find no correlation between insider trading in one quarter and next quarter’s forecast errors. (Ke & Huddart & Petroni 2003) study a particular type of earnings news: an earnings decrease (“break”) after a long string of consecutive increases in quarterly earnings. They find no evidence of insider selling in the short window prior to the break, although they find significant insider selling in the long window (trading occurs three to nine month before the bad news is released).

There are various disadvantages of insider trading. If insider trading occurs frequently, this would create the lack of belief in the fairness of the capital market, thereby disabling companies to raise fresh capital. There are various benefits of regulating insider trading: a good image of the capital market, efficient allocation of resources, mitigating agency problems.

2. AGENCY THEORY AS A SOURCE OF ASYMMETRIC INFORMATION

Separation of ownership and management means that shareholders hold the ownership of the company but they hire managers to run day-to-day business (principal – agency relations) and do not exercise direct control. The principal–agent problem or agency dilemma concerns the difficulties in motivating one party (the “agent”) to act in the best interests of another (the “principal”) rather than in his or her own interests.

The relationship between the principal (owners) and the agent (managers) based on the contract is a focal point of the agency theory. The principal wants to maximize his/her benefits while minimizing reward to the agent at the same time. On the other hand, the agent wants to maximize his/her benefits. The agency theory assumes that the principal’s wealth, per se, would not be maximized because the agent and the principal: 1) have different goals, 2) have different propensity towards risk, and 3) have different access to information (information asymmetry).

Information asymmetry deals with the situations where one party has more or better information than the other. This creates an imbalance of power in transactions which can sometimes cause the transactions to go awry, a kind of market failure in the worst case (Akerlof 1970, Spence 1973, Rothschild & Stiglitz 1976).

Due to the information advantage over other investors, some problems may arise, e.g. moral hazard. Moral hazard occurs when the party with more information about its actions or intentions has a tendency or incentive to behave inappropriately from the perspective of the party with less information (Baker, 1996, Easterbrook, 1985, Padilla, 2002).

To reduce the risk of moral hazard and diminish the information asymmetry and agency problems, the companies are obliged to publish financial statement and other important non-financial information.
3. EFFICIENT MARKET AS A RATIONALE FOR REGULATIONS AGAINST INSIDER TRADING

The market (including the financial market) is a means of resource allocation. Through these means, society strives to achieve efficiency, the best distribution of resources. Market systems use prices as signals to allocate their resources. Prices are the result of market game between suppliers and demand. There is a need for market to be optimal, which means a situation in which no individual can be made better off without making someone else worse off (Pareto optimal allocation of resources). Initial conditions for optimality are: full information, atomistic agents (i.e. an individual agent is a price-taker, and he/she can’t influence prices), no externalities (e.g. pollution, etc.) – called Arrow-Debreu conditions (A-D conditions). These conditions ensure that there are prices which clear markets (supply = demand) and make individual plans consistent. ‘Market failure’ occurs when the market does not deliver a Pareto-efficient allocation of resources due to violation of one or more A-D conditions.

In financial modelling, this framework is adapted and developed as EMH (the efficient market hypothesis). The efficient markets hypothesis says that the prices generated by capital markets represent the best possible estimate of the values of the underlying assets (Fama, 1965, Fama, 1970). The efficient-market hypothesis asserts that financial markets are “informationally efficient”. Consequently, one cannot consistently achieve returns in excess of average market returns on a risk-adjusted basis, given the information available at the time the investment is made.

Using nonpublic information for making a trade changes the prices and violates efficiency, which is the basis of an optimal capital market (and in consequence efficient allocation in the whole economy) and proper relation between the principal and the agent. Information in the financial market is disseminated in a manner by which all market participants receive it at more or less the same time. Under these conditions, one investor can gain an advantage over another only through acquiring some skill in analyzing and interpreting available information. This skill is based on individual merit and awareness. If one person trades with nonpublic information, he or she gains an advantage that is impossible for the rest of the public. This is not only unfair but disruptive to a properly functioning market: if insider trading was allowed, investors would lose confidence in their disadvantaged position (in comparison to insiders) and would no longer invest.

The concept of EMH is important to all market participants (especially investors and companies) because it provides a feedback measure to take economic decision on how to allocate resources. The most important information given by the financial market is interest rate – the cost of capital for companies rising capital and the rate of return for investors.

4. METHODOLOGY AND RESEARCH FINDINGS

Information asymmetry and the need for optimal market makes governments try to prevent economies from insider trading which violates the basis of resource allocation – the basis of market economy. Such violations of optimal market conditions provide a rationale for regulation.

Laws regulating insider trading are relatively common across the vast majority of countries although the level of enforcement differs from one country to another (Bhattacharya & Daouk, 2002, Beny, 2007). The practice of governments around the world has common aim to prohibit trading securities using material nonpublic information. The legal regulation concerning insider trading aim to promote fairness of the market and to prevent traders from abusing their privileged position.

Our study is different from others in that we do examine numbers of identified (not prosecuted or convicted) insider trades cases. The analysis is performed against the number of listed companies on a given stock market (to make analysis more relative) and against the level of stock market indexes and their changes. We conduct our research for the period of 2005-2013.

We consider three stock markets from three different countries (Poland, the US, and China). The choice of these countries were made on purpose because these countries differ largely; they have got different cultures, corporate government systems, insider trading laws.

We test the hypothesis that despite insider trading based on nonpublic information is prohibited and prosecuted, people use such information and try to beat the market.
The tables 1-3 present the characteristics of insider trading from three countries.

**Table 1:** The number of insider trading cases on Shenzhen Stock Exchange & Shanghai Stock Exchange (China)

<table>
<thead>
<tr>
<th>Year</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of identified insider trading cases</td>
<td>49</td>
<td>43</td>
<td>35</td>
<td>52</td>
<td>58</td>
<td>52</td>
<td>10</td>
<td>30</td>
<td>51</td>
</tr>
<tr>
<td>Number of listed companies</td>
<td>1,377</td>
<td>1,434</td>
<td>1,550</td>
<td>1,625</td>
<td>1,718</td>
<td>2,063</td>
<td>2,342</td>
<td>2,494</td>
<td>2,489</td>
</tr>
<tr>
<td>percentage</td>
<td>3.6%</td>
<td>3.0%</td>
<td>2.3%</td>
<td>3.2%</td>
<td>3.4%</td>
<td>2.5%</td>
<td>0.4%</td>
<td>1.2%</td>
<td>2.0%</td>
</tr>
<tr>
<td>SZSE Component (Shenzhen)</td>
<td>2,700</td>
<td>4,350</td>
<td>12,750</td>
<td>9,650</td>
<td>12,900</td>
<td>9,300</td>
<td>12,430</td>
<td>9,500</td>
<td>7,600</td>
</tr>
<tr>
<td>SSE Composite (Shanghai)</td>
<td>1,100</td>
<td>1,300</td>
<td>4,500</td>
<td>2,300</td>
<td>2,800</td>
<td>2,600</td>
<td>2,800</td>
<td>2,400</td>
<td>1,900</td>
</tr>
</tbody>
</table>


The annual average number of identified insider trading cases is 42. The higher than average number of entities which committed insider trading can be observed in the years 2005-2006 and 2008-2010. The annual average relative number of insider trading cases is 2.4%. A higher than average percentage is characteristic for the years 2005-2006 and 2008-2010. The first period is the time of dynamic rises of the share prices. This may mean that persons committing insider trading wanted then to make use of general increase in the share prices so as to obtain the rate of return even higher than average. Such behaviors and activities brought about further raising of the average market rate which might contributed to the emergence of speculative bubbles. The increase in cases of insider trading in 2008-2010 period may be explained by the quest for preventing further losses or the wish to make any profit at the time of general falls.

**Table 2:** The number of insider trading cases on New York Stock Exchange (the U.S.)

<table>
<thead>
<tr>
<th>Year</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of identified insider trading cases</td>
<td>50</td>
<td>46</td>
<td>47</td>
<td>61</td>
<td>37</td>
<td>53</td>
<td>57</td>
<td>58</td>
<td>44</td>
</tr>
<tr>
<td>Number of listed companies</td>
<td>2,707</td>
<td>2,764</td>
<td>2,805</td>
<td>3,507</td>
<td>4,014</td>
<td>4,554</td>
<td>4,532</td>
<td>4,493</td>
<td>4,500</td>
</tr>
<tr>
<td>percentage</td>
<td>1.8%</td>
<td>1.7%</td>
<td>1.7%</td>
<td>1.7%</td>
<td>0.9%</td>
<td>1.2%</td>
<td>1.3%</td>
<td>1.3%</td>
<td>1.0%</td>
</tr>
<tr>
<td>DOW Jones (average)</td>
<td>10,800</td>
<td>12,800</td>
<td>13,000</td>
<td>13,500</td>
<td>9,000</td>
<td>10,500</td>
<td>11,600</td>
<td>12,200</td>
<td>13,000</td>
</tr>
</tbody>
</table>


The annual average number of identified insider trading cases is 50. The higher than average number of entities which committed insider trading can be seen in 2008 and the period of 2010-2012. The year 2008 is the time of achieving maximum levels of share prices. This may mean that persons committing insider trading at that time wanted to make use of general increase in the share prices so as to obtain the rate of return on investment even higher than average. This, in turn, might be the reason for the emergence of speculative bubbles. The years 2010-2012 are marked by a slow increase in the share prices. The increase in cases of insider trading at that time may be explained by the quest to make higher profits at the uncertain time (and to make up for previous losses). The annual average relative number of insider trading cases is 1.4%. The higher than average percentage is characteristic for the years 2005-2008. This period runs just before the financial crisis. This may mean that persons committing insider trading at that time wanted to make use of general increase in the share prices so as to obtain the rate of return on investment even higher than average.
Table 3: The number of insider trading cases on Warsaw Stock Exchange (Poland)

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of identified insider trading cases</th>
<th>Number of listed companies</th>
<th>percentage</th>
<th>WIG index</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>6</td>
<td>351</td>
<td>1.7%</td>
<td>55,648</td>
</tr>
<tr>
<td>2008</td>
<td>4</td>
<td>374</td>
<td>1.1%</td>
<td>27,228</td>
</tr>
<tr>
<td>2009</td>
<td>6</td>
<td>379</td>
<td>1.6%</td>
<td>39,985</td>
</tr>
<tr>
<td>2010</td>
<td>5</td>
<td>400</td>
<td>1.3%</td>
<td>47,489</td>
</tr>
<tr>
<td>2011</td>
<td>1</td>
<td>426</td>
<td>0.4%</td>
<td>37,595</td>
</tr>
<tr>
<td>2012</td>
<td>2</td>
<td>438</td>
<td>0.5%</td>
<td>47,460</td>
</tr>
<tr>
<td>2013</td>
<td>3</td>
<td>450</td>
<td>0.7%</td>
<td>51,284</td>
</tr>
</tbody>
</table>

Source: [http://bip.knf.gov.pl/pliki/kary_KNF_16-12-2014_tcm6-27121.pdf](http://bip.knf.gov.pl/pliki/kary_KNF_16-12-2014_tcm6-27121.pdf) for the number of insider trading cases and [http://www.gpw.pl/analizy_i_statystyki](http://www.gpw.pl/analizy_i_statystyki) for the number of listed companies.

The annual average number of identified insider trading cases is 4. The higher than average number of entities which committed insider trading occurs in the 2007-2010 period. The annual average relative number of insider trading cases is 1.0%. The higher than average percentage is characteristic for the years of 2007-2010. The increased number and percentage of insider trading cases falls within the period of large falls and fluctuations of share prices in Poland, just right after financial crisis began. The increased number of insider trading cases at that time may be explained by the quest for preventing further losses or the wish to make any profits at the time of general falls.

5. CONCLUSIONS

There are some differences but at the same time similarities between the analysed stock markets. The number of insider trading cases is quite different – from 4 for WSE to 50 for NYSE. The percentage is also different – from 1.0% for WSE to 2.4% for Chinese stock markets. But what these stock markets have in common is that the number of identified illegal insider trading is quite stable with some small fluctuations.

Yet, as the data show, a number of insider trading gets higher at times of dynamic changes of the situation - at times of dramatic rises or falls. Such situations may be described as those ones which instigate negative human behaviors. They can be explained by psychology, in particular, by the concept of one of the most respected psychologist Ph. Zimbardo, who says that “situation makes people wrongdoers”.

The number of detected illegal insider trading results not only from human behavior but also from legislation, the degree of rigour of provisions of the legislation and its enforcement. Sometimes even though the laws across different countries in the world are strict, they may not be enforced.

Throughout the analysis we assumed that people knew that their conduct is illegal. However, it can be argued that people involved in insider trading might or might not be aware of the importance of their conduct. The reason for their behavior might lie in their lack of knowledge such conduct is illegal. But this might be proved by further more in-depth research on causes of these specific behaviors.

REFERENCE LIST