Insider Trading in the Brazilian Stock Market

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Abstract

The development of the Brazilian stock market has raised concerns about the practice of insider information, with several cases being documented in recent years. We hypothesize that insider trading is a form of corruption. As such, the higher the corruption level in a country, the more intense insider trading practices in that country are likely to be. Brazil is in an intermediate zone of corruption, and there is a widespread feeling that the authorities do not fight insider trading efficiently enough and that the market tolerates it. Some authors argue that corruption is inversely related to education and that the struggle against corruption requires the control of public administrators, which can be exerted through voting, controlling congress, and bureaucratic procedures. There is a anthropological view in which corruption arises from an extension of the public to the private sphere as a result of cultural patterns that approximate the individual to the person. Corruption derives from existing personal relationships of the members of the State bureaucracy, implying illicit gains using public resources. In this paper, we survey the Brazilian legislation related to insider trading and present a review on empirical studies on the subject. We conclude that although an institutional framework exists in Brazil to fight insider-trading practices in the stock market, the actual success and willingness of the authorities with respect to this form of corruption is inefficient. One of the reasons for this is a long tradition of corruption culture. One cannot deny the efforts applied by CVM, Bovespa, and legislators towards increased transparency and ethical behavior, but the actual enforcement of the law against insider trading seems to require a much greater effort.

1. Introduction

In the past 20 years or so, the development of the Brazilian stock market has raised concerns among investors and investment professionals, as well as among academic and legal professionals and the media about the use of insider information in Brazil. In recent years, a number of insider trading cases have been documented, such as the Ambev Brewery case, investigated by CVM, regarding trades executed by major shareholders and executive directors before Ambev merged with Belgian brewery Interbrew in 2004 (Proença, 2005). Another recent example is CVM’s Administrative Sanctioning Lawsuit no. 18/01, which investigated the use of inside information related to the relevant event of an equity issue by Copel Parana Energy disclosed on July 25, 2001. The CVM considered the possibility of applying the same trading conditions to owners of this company’s ordinary shares as the State of Paraná applied to Bndespar. The disclosure of the relevant fact caused the price of the company’s ordinary shares to appreciate by about 14%. This process led to the imposition of sentences on investment fund managers who traded Copel’s stocks using insider information, based on CVM’s instruction no. 31/84 (Rochman and Eid Jr, 2006).

More recently, the Brazilian Federal Justice blocked a suspicious deal of BRL 4 million involving the sale of Ipiranga Group’s shares before the announcement of the acquisition of the Group by Petrobras, Bras kem, and Ultra Group. The injunction order, solicited by CVM and by the Federal Public Ministry, was issued on March 21, 2007 and it impeded two investors — a foreign fund and a physical person — from receiving the money obtained from the sale of the shares. However, the Justice’s decision does not hinder the sale of the company. The press reported that two days prior to the announcement of the sale of Ipiranga, the price of the company’s stocks traded in Bovespa appreciated by 33%. For this reason, immediately after the disclosure of the sale of Ipiranga, CVM stated that it suspected
insider trading and would launch an investigation. The federal judge, Mauro da Costa Braga, of the 1st Federal Court of Justice of Rio de Janeiro, said he understood that the trade affected market credibility. CVM asked for clarification concerning the strong appreciation of the stock price. Ipiranga replied that assessors of the controlling shareholders had held confidential negotiations with assessors of potential buyers. For the first time, a legal act blocked a stock market trade based on suspicious insider information. If insider trading is confirmed during the investigation, CVM can impose a fine and demand that the investors involved are banned from the financial market for up to 20 years. By the time this chapter was finished, no decision had yet been taken by CVM or by the Federal Justice.

We support the idea that insider trading is a form of corruption. As such, the higher the corruption level in a country, the more intense insider trading practices in that country are likely to be. In 2006, in a global ranking of perceived corruption, Transparency International ranked Brazil 70th amongst 160 countries. The first positions are occupied by less corrupt countries, and the last positions by the most corrupt ones. This means Brazil is in an intermediate zone, along with Saudi Arabia, China, Egypt, Ghana, India, Mexico, Peru, and Senegal. In Brazil, there is a widespread feeling amongst the public that the authorities do not fight insider trading efficiently enough and that the market tolerates it.

Some authors argue that corruption is inversely related to education. For example, Mauro (1995) points out that unstable and corrupt governments tend to invest less in public education, which corroborates the idea advanced by Shleifer and Vishny (1993) that investment in education would provide fewer opportunities for corruption. Pereira (2004) suggests that the struggle against corruption requires the control of public administrators, which can be exerted through voting, controlling congress, and bureaucratic procedures. He adds that the set of actions necessary to fight corruption involves educating the citizens, besides ensuring transparency in the administration of public goods. On the other hand, the poor educational performance of Brazilians is well documented (Birdsall and Sabot, 1996). De Barros et al. (2002) assert that “the comparison of the Brazilian reality with the international experience confirms the weak performance of our educational system in the last decades. Brazil presents a delay, in terms of education, of about one decade in relation to a typical country with a pattern of similar development to ours.” Several authors have pointed out systematic underinvestment in education in Brazil (De Barros and Mendonça, 1997), while others have maintained that investments in education in Brazil are not low. The problem is that they are badly spent (Schwartzman, 2004).

De Araujo (2005) suggests that effective combating of corruption must destroy the rent-seeking microeconomic rationale that uses institutional weaknesses to expropriate wealth. He also affirms that in the long term, investment in public education, especially at a fundamental level, is one of the key factors in the struggle against corruption. On the one hand, such investments are less susceptible to corruption; on the other hand, they assure that civil society will have its human capital sufficiently developed to best monitor public institutions, as long as they are transparent. The author concludes by saying that transparency and education are instrumental in ensuring the strengthening of the institutions and reducing corruption.

2. Corruption and Insider Trading

Insider trading is often regarded as a form of corruption. Although Shleifer and Vishny (1993) define government corruption as the sale by government officials of government property for personal gain, Braguinsky (1996) points out that “corruption is commonly
defined as misappropriation of government property or revenues made possible through government regulation.” However, he also argues that “insider trading is a more common sort of corruption that does not involve government property, and that both corruption and insider trading are a consequence of asymmetry of information. Valuable information exists, but not everyone has access to it” (Braguinsky, 1996).

Du and Wei (2004) consider the extent of corruption in a country’s judicial system. They maintain that, on an ex-ante basis, it is plausible to expect that legal corruption and insider trading are positively correlated: if the judges can be influenced by bribery, then it is highly probable that the laws regarding the prohibition of insider trading are not vigorously or fairly enforced. Furthermore, they find that legal corruption is positively and significantly associated with insider trading: countries with a higher degree of legal corruption are also likely to have more prevalent insider trading.

We share the idea, advanced by Braguinsky (1996) and tested empirically by Du and Wei (2004), that insider trading is akin to corruption. Power and González (2003) carried out a cross-country empirical study aimed at determining economic and cultural factors that influence corruption. They noticed that in the 1990s, theorists of social capital were attempting to set up associations between political culture and the behavior of governmental institutions. Thus, they argue that if such relationship exists, then it should be possible to detect the cultural factors that are linked to corruption. Power and González (2003) test this hypothesis across a sample of countries. For this, they developed multivariate models designed to capture the impact of cultural factors – such as religious tradition, interpersonal confidence, and law abidance – on levels of corruption in several countries. They used a reputation index taken as a proxy for corruption developed by Transparency International as a dependent variable. The paper shows that the level of corruption in a particular country is essentially an attribute of the type of political regime and the level of economic development in that country. However, certain cultural characteristics provide explanatory power to these models, thus contextualizing macroeconomic and macropolitical interpretations of corruption. In this paper, Power and Gonzalez (2003) show that Brazil presents a high level of perceived corruption both when evaluated by Transparency International and when measured by an index of the people’s perception of corruption. Additionally, they find that Brazilians share a low level of interpersonal confidence.

As Filgueiras (2006) suggested, there is a culturalist vision, adopted by anthropologists, according to whom corruption arises from an extension of the public to the private sphere as a result of cultural patterns that approximate the individual to the person, i.e. the public sphere is permeated by personal relationships that lead to ad hoc authorities, which is directly proportional to the set of personal relationships the individual has in society. Hence, according to Bezerra (1995), corruption derives from existing personal relationships of the members of the State bureaucracy, implying illicit gains using public resources. Therefore, personal relationships in Brazil are established and socially institutionalized day-to-day practices, which are then not questioned or fought. Besides, contravention networks are related to personal networks, such as kinship or friendship (Bezerra, 1995).

3. Brazilian Insider Trading Laws and Regulations

The disclosure of relevant facts, loyalty, and the duty to provide information to prevent the use of privileged information were introduced in the Brazilian market by Laws 6404 and 6385 of 1976. With the new Anonymous Societies Law – Law 10303 of 2001, the use of privileged information began to be considered a crime liable to punishment:
“Article. 27-D. To utilize relevant information not yet disclosed to the market, of which one has knowledge and about which one should keep confidential, capable of providing to oneself or to a third party undue advantage by means of trading with securities, in one’s own name or in the name of others:
Penalty – confinement, form 1 (one) to 5 (five) years, and a fine of up to 3 (three) times the amount of the illicit advantage obtained in consequence of the crime.”

Concerns with trading transparency and equity of rights led CVM to issue Instruction 358 in 2002, which updated Instruction 31 of 1984, enforcing the disclosure of trades carried out by those related to the firm’s administration who possess or might have access to privileged information, such as described in Article 11:

“Article 11: The directors, the members of the board, of the fiscal board and of any bodies with technical or consulting functions, created by statute, are obliged to communicate to the CVM, to the company, and, if it is the case, to the stock exchange and to the entity responsible for the over the counter market where the securities issued by the company are listed for trading, the quantity, the characteristics and the form of acquisition of the securities issued by the company and by its controlled or controlling companies that are public listed companies or that are referred to them, of which they are owners, as well as changes in their positions.
Paragraph 1: The communication must contain at least the following information:
I – name and qualification of the informer, indicating his registration number in the National Register of Legal Persons or the National Register of Physical Persons;
II – quantity, by type and class, in the case of stocks, and additional characteristics in the case of other securities, besides the identification of the issuing company; and
III – type, price, and date of transactions.
2nd Paragraph: The directors, members of the board, members of the fiscal board and members of any bodies with technical or consulting function, created by statute must provide the communication referred to in the above caption immediately after the investiture in the position or by the time of presentation of the documentation for the registration of the company as publicly listed and within the maximum period of 10 (ten) days after the end of the month when the change of positions owned by them has occurred, indicating the balance of the position in the period.
3rd Paragraph: The natural persons mentioned in this article will also indicate the securities under the property of husband/wife neither of whom are legally separated, of a companion, of any dependent included in his annual income tax statement, and of companies directly or indirectly controlled by them.”

It should be noticed that according to the third paragraph of Article 11 of CVM Instruction 358/02, family members of the administrators and board members also become compelled to disclose trades carried out with securities, thus contributing to the improvement of the company’s transparency and its corporate governance. CVM has demonstrated to the market its strong position against insider trading that brings losses to the other market participants, as one can perceive from the statement pronounced by CVM’s CEO, Mr.
“Insider trading, the act of trading with privileged information, not available to the regular agents, is among the gravest infractions in the capital market, exactly because it undermines the market in its most important fundamental aspect, which is the trust on the agents and on the information available. Therefore, as a matter of proportionality, and being very grave conduct, it is correct to apply serious punishment, such as the maximum pecuniary fines and the penalty of suspension of the authorization for exerting the role of portfolio manager, proposed by the vote of the Reporting Director and, for that reason, supported by the remaining members of the Board.”

4. Evidence on Insider Trading in the Brazilian Stock Market

There are several empirical studies on insider trading practices in Brazil. In one of these studies, Leal and Amaral (2000) test the existence of insider trading in Brazil using the event study methodology. They argue that when striving to attract new investors, firms intending to issue stocks become more aggressive in the secondary market and in the media by attempting to improve the quality of the information on the firm and its perspectives. Therefore, they argue that we should expect positive abnormal returns on stocks in a period prior to the announcement of an equity issue. They studied 12 stocks from January 1981 to December 1985, and they found significant evidence of insider trading.

Da Costa (2002) argues that CVM tries to justify the regulation of the capital market based on ad hoc criteria of justice and equity, thus following the model proposed by IOSCO. However, in his view, the perspective of property rights is also rooted in the logic of the regulatory apparatus that the Commission exerts for the enforcement of the regulation, since the concerns of CVM with the system of incentives to the undue appropriation of firms’ corporate property is widely known. Da Costa (2002) analyses the model of regulation of insider trading in the Brazilian stock market, by evaluating the impact of Law 7913 of 1989 on the stock returns of trades registered in CVM in the period from 1989 to 1991. The study, which was carried out before the CVM issued its instruction 358/02, concluded that corporate investors did not obtain statistically significant excess returns for having a monopoly of privileged information. The analysis of the legal system focuses on CVM Instructions No. 8 of October 1979, No. 31 of February 1984, and No. 202 of December 1993, as well as on Articles 155 to 159 of Law No. 6404 of December 1976 and Law No. 7913 of December 1989. The latter was assumed as the regulatory mark for the empirical assessment of buying and selling trades of stocks with possible inside information. The econometric model Da Costa used to assess the effectiveness of insider trading regulation in the Brazilian stock market is the Black, Jensen & Scholes (1972) version of the so-called market model. The model attempts to explain whether the implementation of the law was capable of eliminating or reducing returns from insider trading operations during the period after its implementation. Due to insufficient data available, the analyzed period included the years 1989, 1990, and 1991 only. Based on the results obtained in this study, Da Costa (2002) affirms that, during the sample period, it is possible to observe a clear trend of falling differential returns obtained with buying or selling insider trading operations in the Brazilian stock market. He argues that even during 1989 this trend was already noticeable, although differential returns were statistically more significant. With the sanctioning of Law 7913 in December 1989, the incentive for the undue appropriation of the company’s property became even lower, provoking a drop in differential returns. The author adds that, although the law has not completely eliminated these returns, since the existence of differential returns obtained from
the undue use of insider trading during the sample period is considerable, one could say that the law was efficient in achieving its purposes, as the differential returns became statistically less significant after its implementation. Of course, Da Costa’s (2002) study presents several problems, such as a small sample size and a reduced period of analysis. Nevertheless, it seems quite possible that Law 7913 of December 1989 has, indeed, been effective in curbing differential returns of insider traders. This possibility does not overcome the idea that insider-trading activities are still practiced on a significant scale in Brazil, despite the laws and CVM’s efforts. Several other empirical studies performed in the country have shown evidence of insider trading activities and profiting in the Brazilian stock market.

In another empirical study, De Medeiros and Matsumoto (2006) undertook an event study on the market reaction to a sample of 80 seasoned equity offers (SEOs) issued in the Brazilian stock market from 1992 to 2003. Initially, abnormal returns were calculated for each issue using the market model estimated by ordinary least squares (OLS). They found, however, the presence of ARCH processes in the regression residuals in 70% of the sample regressions. For these cases, they re-estimated the regressions by ARCH or GARCH models, according to their best fit. Comparing the initial results to those taking into account the heteroscedastic (ARCH or GARCH) processes, they found that the original results indicated negative abnormal returns biased downwards with respect to the alternative estimation. However, re-estimation, although leading to lower abnormal returns in absolute values, does not change the results in qualitative terms. Their results show that stockholders seem to be cautious about firms that issue stock to raise funds with the argument that they are investing in projects with positive NPV. When firms announce that they are raising funds through the issue of new stocks, it is inferred that these firms could be waiting for an opportunity window to issue. Thus, when the stock market reaches a given level in which the shares of these firms are overvalued, stockholders are satisfied to sell part of their investment at a profit. Actually, this shows that when companies announce the issue, there is a negative signaling to the market. As shown in De Medeiros and Matsumoto (2006), in the period from 1992 to 2003, Brazilian companies that raised funds through underwriting were unable to meet the benchmark, i.e. the Brazilian stock market index. The results led them to infer that insiders sell their equity position about three weeks before the announcement, since they expect the announcement will convey negative information about the firm’s true value. Actually, it is found that there are significant negative abnormal returns about three weeks before the announcement. Negative abnormal returns means falling prices, indicating the occurrence of inside information, which anticipates what should only occur on the announcement day. The results presented negative CARs of 4.6% 30 days around the announcement day, i.e. 14 days before and 15 days after. On announcement day, a negative abnormal return of 2.4% was verified. The incidence of negative abnormal returns three weeks before the issue announcement may be interpreted as evidence of insider information, since it seems to be an anticipation of what should occur only on the announcement day. The negative abnormal returns related to the announcements are consistent with the asymmetric information hypothesis in which the management is better informed about a firm’s value than outsider investors are.

Rochman and Eid Jr. (2006) performed a set of event studies on trades carried out with companies’ stocks by insiders aiming at detecting abnormal returns, as a consequence of having access to inside information. Their sample is composed of trades performed by insiders of firms with stocks traded on Bovespa that are listed on superior levels of corporate governance. They found evidence of insider trading that resulted in statistically significant returns in excess of expected returns, such as in the purchase of ordinary stocks by controllers, families, and investment clubs or in sales of preferred stock by directors, board members,
assessors, and board advisors. The authors show that insider traders, as defined by CVM Instruction No. 358 of 2002, are very active in the Brazilian stock market. The profile of trades involving stocks traded by insiders indicates that the directors sell more stocks than they buy, which is the opposite behavior with respect to controllers and board members; that insiders of firms on Level 1, which require less governance requirements and restrictions, are more active in trading than their peers in firms on higher governance levels. They also show that purchases of ordinary stocks and sales of preferred stocks carried out by insiders show a significant cumulative average abnormal return, providing evidence of insider trading. This evidence is supported by the significant average cumulative abnormal returns obtained on the days following ordinary stock purchases by controllers, families, and investment clubs and by the sales of preferred stocks by directors, board members, assessors, and board advisors, where significant average cumulative abnormal returns were obtained 10 days before the trades. As a consequence of these results, they reject the efficient market hypothesis in its strong form. The purchase of preferred stocks and the sale of common stocks did not present any significant average cumulative abnormal return. However, some of these operations presented significant average abnormal returns in some days near the event.

Beny (2006) performs a study that proposes three testable hypotheses regarding the relationship between insider trading laws and several measures of stock market performance. Using cross-country data, the paper finds that more stringent insider trading laws are generally associated with more dispersed equity ownership, greater stock price accuracy, and greater stock market liquidity. In her empirical study, Beny defines a series of variables associated with insider trading laws across countries. After analyzing these variables for a large sample of countries, she finds that Brazil presents the most restrictive insider trading prohibition, while, with respect to sanctions, the country shows the lowest expected sanctions. This result is very much aligned with the general idea that prevails in the country: Brazil has appropriate and sufficient laws, but the law enforcement fails, and criminals are not punished.

According to Bueno et al. (2000), one of the most visible economic phenomena in Brazil in the 1990s has been the mergers, acquisitions, separations, and restructuring of companies established in the country. As a direct consequence of globalization, economic openings, privatization, and monetary stabilization, the process seems to be far from ending its cycle. Because it is an effervescent market, the phenomenon, which is not entirely understood and assimilated, has been studied by several sciences, including economics, accounting, finance, marketing and strategy, and business policy. In the financial area, the effect of these operations on a capital market characterized by a high concentration of trades on a few securities, and low liquidity, has caused concerns. Now and then, the media reports events involving the use of insider information, in stock, exchange rate, commodity, and derivative markets. Market participants argue that the origin of the phenomenon is a moral crisis in Brazilian society, combined with a sensation of impunity, supported by an inefficient legal system. Based on recent cases of mergers and acquisitions involving Brazilian publicly listed companies, Bueno et al. (2000) selected a random sample containing 16 cases involving 14 stocks. The most liquid stocks from each firm were picked, making no distinction between stocks of acquiring/acquired or incorporating/incorporated or merged firms. Quotes were collected for one, five, 10, 15, and 30 trading days prior to the announcement of the facts relevant to legal dispositions or the media’s disclosure of the event prior to the relevant announcement of the fact, even when, afterwards, they were unconfirmed or not concluded. The stocks included in the sample were issued by firms without regard to industry sector that were subject to merger or acquisition processes in the period from May 1995 to January 1998. The authors adopted Brown and Warner’s (1985) Comparison Index (CI) method. Using this method, they calculated the ratio between the change of a stock’s closing price and the
Bovespa Index (Ibovespa) change for the same period. The CI is given by 
\[ \log(\text{CI}) = \log\left(\frac{P_t}{P_{t-1}}/\frac{I_t}{I_{t-1}}\right) \], where \( P_t \) is the stock price and \( I_t \) is the market index; \( \log \) refers to the natural logarithm and \( t \) is the time subscript. The CI can be described as a test of abnormal returns as a function of private information unadjusted to risk. Based on the data collected, two types of analysis were performed: a) Description of the frequency distribution of stock price changes with respect to the Ibovespa change. For such, the frequency distribution of the CI was used; b) Testing the hypothesis that the stock price changes are different from the market index changes. For all cases the results reveal a mean higher than 1, with the mean return in the first trading day of 4.8% above the market. The variance tends to increase during longer periods. The same happens with the interval between minimum-maximum returns, and for the series of 30 days, with this measure being almost four times greater than the one-day series. With respect to the form and frequency of the series, with a warning about the small sample size, it can be noticed that, with the exception of the series with 1 and 15 trading days, the others present negative skewness (inclined to the left) and also a negative kurtosis, meaning platikurtic distributions. This means that besides a greater dispersion, there is a higher probability for positive than negative abnormal returns (losses), given that there is a greater number of observations above the mean (negative skewness) than below it. The paper detects a market inefficiency in stock pricing performed with stock returns in one trading day before the announcement or disclosure. However, the authors point out that the method used has limitations for not taking into account the systematic risk of stocks and also because of the use of trading days instead of working days, which may imply that a different change of the market index might be caused by other factors, besides the use of inside information on mergers and acquisitions.

5. Final Remarks

In this chapter, we attempted to present a picture of the Brazilian situation with respect to insider trading. We sought to discuss legal and economic aspects of insider trading in Brazil. We support the idea, raised by previous literature, that insider trading is a form of corruption. More specifically, a form of private or business corruption, although insider trading may also be practiced within the governmental arena.

We sustain the view that although an institutional framework exists in Brazil to fight insider-trading practices in the stock market, the actual success and willingness of the authorities with respect to this form of corruption is still far from being efficient. One of the reasons for this is that Brazil is a country with a long tradition of corruption culture and corruption is still tolerated in the country.

Of course, we cannot deny the efforts applied by CVM, by Bovespa, and by the legislators towards increased transparency and ethical behavior, but the actual enforcement of the law against insider trading seems to require a much greater effort. More specifically, CVM lacks the proper material means and sufficient skilled personnel to monitor a large portion of stock market trades.

The struggle against insider trading in Brazil will probably be coincident with the struggle against corruption. Since corruption in this country seems to be largely a cultural phenomenon, it could take a very long time, possibly generations, until the country is able to see significant changes. As pointed out in many previous studies, corruption is inversely related to education. Therefore, the battle against corruption and insider trading will depend on whether the country is able to put forward sound and sustainable public educational policies in the future.
6. References


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1 Comissão de Valores Mobiliários, the Brazilian version of the SEC – Securities Exchange Commission in the US.
2 One of the states of the Brazilian federation, which comprises 26 states and the federal district.
3 Bndespar – BNDES Participações S.A. is the branch of BNDES – National Bank for Economic and Social Development acting in the Brazilian stock market as a private equity fund.
5 Non-governmental organization devoted to fighting corruption worldwide (http://www.transparency.org/)
6 For a detailed description of event study methodology, see McKinlay (1997).
7 International Organization of Securities Commissions.
8 Autoregressive Conditional Heteroscedasticity (See Engle, 1982).
9 Cumulative Abnormal Returns.
10 Levels 1 and 2, and the New Market.