IGC x Ibovespa: the impact of the rally of stocks entering the IGC

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RESUMO

IGC x Ibovespa: o impacto do *rally* das ações entrantes no IGC

O Índice de Ações com Governança Corporativa Diferenciada (IGC) apresentou retorno superior ao Índice da Bolsa de Valores de São Paulo (Ibovespa) entre 2001 e 2007. Essa simples comparação poderia apontar para o retorno superior das empresas com boas práticas de governança corporativa. As ações de empresas com nível diferenciado de governança corporativa são incorporadas imediatamente no IGC, enquanto há um período de carência de 12 meses para as novas ações ingressarem no Ibovespa. As ações de empresas que fizeram oferta pública inicial (IPO – *initial public offering*) ou migraram para um nível diferenciado de governança têm, usualmente, retorno inicial superior. Os testes realizados mostram que o retorno superior do IGC em relação ao Ibovespa pode ser atribuído ao retorno inicial superior das ações de empresas que tiveram reconhecido seu nível diferenciado de governança, por migração ou IPO. Mostram também que, expurgado esse efeito do *rally* inicial, as ações das empresas com e sem nível diferenciado de governança não apresentam retornos continuados (no longo prazo) significativamente diferentes.

***Palavras-chave*:** IGC, governança corporativa, mercado de capitais.

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1. INTRODUCTION

The motivation for this article originates from the criteria applied in the composition of the IGC (*Índice de Ações com Governança Corporativa Diferenciada* or Special Corporate Governance Stock Index), which provides for the immediate inclusion of the shares of companies that adopted one of the types of differentiated corporate governance; this is not the case with the Ibovespa (*Índice da Bolsa de Valores de São Paulo* or São Paulo Stock Exchange). This immediate inclusion into the IGC can lead to a superior return as the move to one of the segments of differentiated corporate governance helps to initially boost the value of such shares, therefore increasing the returns

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over the first months and firms that open their capital show a superior initial increase in the first months after start of trading. This article tests whether the higher return of shares that make up the IGC is due to:

- a continual higher return (long term effect), inherent to the shares of companies with good corporate governance practices; or
- a temporary higher return (short term effect, or rally), specific to the initial increase in value of shares of those companies that initiated negotiations (IPO) on stock exchanges or migrated to one of the differentiated segments of corporate governance.

In December 2000, Bovespa created the New Market (*Novo Mercado*) and the Differentiated Levels of Corporate Governance (Level 1 and Level 2). The New Market and Levels 1 and 2 are here referred to jointly as differentiated segments of corporate governance. On June 26 2001 the IGC was instituted. Between the institution of the IGC and December 31 2007, the number of shares making up the IGC increased from 15 to 177, representing on that date the equivalent of 60% of the market capitalization of all companies. As regards profitability, during this period a superior return of IGC was observed, compared to that of Ibovespa over the same period (588% and 342% respectively).

Studies of this topic in Brazil have investigated the existence of a relationship between good corporate governance practices and the increase in price of shares or the reduction of their cost of capital, an increase in the price of shares of companies that migrated from the traditional segment to one of the differentiated segments of corporate governance and the superior return of IGC compared to Ibovespa (CARVALHO, 2003; AGUIAR, CORRAR and BATISTELLA, 2004; BATISTELLA *et al.*, 2004; VIEIRA and MENDES, 2004; LEAL and DA SILVA, 2005; ROGERS, RIBEIRO and SOUSA, 2005a; ROGERS, RIBEIRO and SOUSA, 2005b; SILVEIRA, BARROS and FAMÁ, 2005; CAMARGOS and BARBOSA, 2006; MACEDO and SIQUEIRA, 2006; MACEDO, MELLO and TAVARES, 2006; SECURATO, 2006; SAVOIA, SAKO and SAITO, 2007). Not all of these studies arrived at statistically meaningful results.

In addition to the above mentioned works regarding the increase in price of shares of companies that migrated to one of the differentiated segments of corporate governance, there are studies in Brazil and abroad to measure an unusual positive return during the first months after start of trading, of the shares of companies that go public (ROCK, 1986; SHILLER, 1990; RITTER, 1991; AGGARWAL, LEAL and HERNANDEZ, 1993; IBBOTSON, SINDELAR and RITTER, 1994; LOUGHRAN, RITTER and RYDQVIST, 1994; RITTER, 1998; DANIEL, 2002; DERRIEN and WOMACK, 2003; CORNELLI, GOLDREICH and LJUNGQVIST, 2004; LEAL, 2005; BRAU and FAWCETT, 2006; KOOLI, L'HER and SURET, 2006; MACIEL, 2006; BORGES, 2007; FREITAS, SAVOIA and MONTINI, 2008).

The object of this article is to test whether the superior return of the IGC relative to the Ibovespa is due to the initial increase in price of the shares when they become recognized as belonging to differentiated segments of corporate governance, be it by initial public offereing (IPO) or migration (rally).

This article analyses the aggregate of two effects on the return of these shares migration to one of the differentiated segments of corporate governance and IPO, split into two periods: the months immediately after these events and subsequent months, which it is believed has not been analysed before in the other works that address this theme, thus helping a better understanding regarding the IGC, corporate governance and its effects on the return of the shares of companies that adhered to such practices.

The evidence points to a positive impact of the shares on entry (rally) on the return of IGC and not to the significance of a continued superior return of the shares of companies with a differentiated level of corporate governance over other companies.

This article is made up of 5 sections, including this first section: Introduction. The second section addresses the revision of literature regarding the theme of corporate governance and initial public offerings (IPO). Section 3 describes the methodology adopted in this work. Section 4 presents the analysis of data and the last section covers the closing considerations.

2. CONCEPTUAL REVISION

2.1. Controlling shareholders *versus* non controlling shareholders

A classic version of the Agency Theory, by Jensen and Meckling (1976) focuses on the differences between the objectives of shareholders and their management, specific to large corporations with widely spread share capital. The agency cost arises from the efforts of shareholders to align the objectives of management with their own and the lack of precision due to the fact that success of this intent is at best partial.

This is not the agency conflict that is predominant in emergent economies such as Brazil, in which share control is generally firmly in the hands of one or only a few controlling shareholders. In such cases, management is closely restrained by the controlling shareholders, which leaves little space for relevant agency conflicts.

In place of the agency conflict between shareholders and management, conflict arises between controlling and non controlling shareholders. This agency conflict, investigated by La Porta *et. al.* (2000), is predominant in the majority of corporations of emerging economies and of the medium-size companies of any country. In the Brazilian context, control of a corporation may be exercised by the shareholder (or a group of shareholders) that own a minority of the share capital, provided that they possess the majority of the ordinary shares.

The majority, which has no control, is made up of shareholders holding ordinary shares and the preferential shareholders.

The mechanisms of conflict are varied. In the case of private companies, these may be related to abuses such as the plain misuse of company resources diverted to the controllers' assets; the employment of relatives with weak or negative performance or the priority for synergies of the company with other organizations in which the controlling shareholders have an interest. In the case of mixed private and state companies, these can be related to mechanisms such as the employment of politicians with weak or negative performance and the priority for public policies with no regard to the interests of investors. In both cases, the controllers' portfolio of reference is generally concentrated, which causes a form of risk-spreading divergent from that of the non controlling investors, which are presumably diversified.

In common, there is a reduction in value for the non controlling shareholders, which can be accompanied or not by a transfer of such value to the controllers. This reduction in value leads to difficulties in competitive attraction of capital and thus tends to restrict investments.

Referring to the classic agency conflict, Shleifer and Vishny (1997, p.743) define corporate governance as a set of restrictions which management applies to themselves or that the investors apply to management, with the aim to reduce inefficiencies in allocation of resources. The classic definition of corporate governance can be transposed to one that includes the self-limitation of the controlling shareholders in favor of non controllers: a group of restrictions which the controlling shareholders apply to themselves to the benefit of the non controlling shareholders, with the aim of reducing inefficiencies in allocation of resources.

With the aim of reducing the agency cost between controlling and non controlling shareholders, good corporate governance practices were developed, recommended by the *Comissão de Valores Mobiliários* (CVM or Brazilian Securities Commission, 2002) and by *Instituto Brasileiro de Governança Corporativa* (IBGC or Brazilian Institute for Corporate Governance, 2004). IBGC (2004, p.6) defines corporate governance as a

- "system by which corporations are managed and monitored, involving the relationships between Shareholders and Partners, the Board of Directors, Management, Independent Auditors and the Fiscal Council," with the "aim to increase the value of the company, improve its access to capital and contribute to its longevity".

The controlling shareholders maintain an adequate level of governance aiming to facilitate raising new capital and therefore, to access part of the equity of investment opportunities. It is expected that adoption of good corporate governance practices will result in lower cost for raising capital, in view of the perceived reduction in risk by investors, as expressed by Vieira and Mendes (2004, p.117).

2.2. Differentiated segments of corporate governance

Some events are helping to spread good corporate governance practices in Brazil. In the regulatory field, Law n.10.303/2001 amended Law n.6.404/1976 – known as the Corporation Law – which introduced advances referring to reduction in the imbalance of power between controllers and non controllers of corporations, thus helping to make the capital markets more accessible to small investors.

Amongst the main improvements one can list the following:

- Limits on issuance of preferred shares in relation to ordinary shares, which demands greater participation by the controlling group in the total share capital of the company (Law n.10.303/2001, Article 15 §2º).
- The settlement of disagreements between shareholders and the company or between minority and majority shareholders through arbitration, which tends to speed up the process of resolution of conflicts (Law n.10.303/2001, Article 109 §3º).
- Institution of **tag along** for the minority shareholders. When the controlling group decides to divest control of the company, the purchaser is obliged to make a public offer of acquisition of voting shares held by the remaining shareholders of the company, in such a way as to ensure a minimum price equal to 80% of the price paid for voting shares that are part of the controlling block of shares (Law n.10.303/2001, Article 254-A).

The creation of the IBGC constitutes a landmark for the standardization and spreading of best corporate governance practices. In 1999, IBGC launched the first version of the Code of Best Corporate Governance Practices (*Código das Melhores Práticas de Governança Corporativa*), which is presently in its third edition, dated 2004. The Institute gathers publications, studies and courses in the area of Corporate Governance Practices and has several committees related to this area.

Another important landmark in the development of corporate governance in Brazil was the creation of differentiated governance segments, in the year 2000, with the aim of distinguishing in one separate group of listing and with voluntary adherence, those companies committed to greater transparency and employing corporate governance practices additional to those required by legislation.

The differentiated segments of corporate governance are three: Level 1, Level 2 and New Market. Apart from these three segments there is also a fourth special listing segment, the Bovespa Mais, referring to the over-the-counter market administered by Bovespa but which is outside the scope of this article.

The mandatory requirements for trading in each of the differentiated segments of corporate governance increase in a gradient, culminating in the New Market – the maximum level of corporate governance instituted by Bovespa. For admission to any of the levels, a company must sign a contract with

Bovespa in which it commits to adopt practices of corporate governance demanded for the level at which it desires its shares to be traded. The main requirements for a company to adhere to the differentiated segments of corporate governance are presented in table 1.

In 2001, Bovespa launched the IGC, whose aim is to measure the performance of a theoretical portfolio composed of shares of companies that show good level of corporate governance. To be eligible for entry into IGC, the shares must have been issued by companies traded in one of the differentiated segments of corporate governance.

The growing importance of differentiated segments of corporate governance, both in number of companies as well as in total market capitalization is expressed in graph 1. At the end of 2007, 60% of the total market capitalization of the Brazilian stock market referred to shares of companies that adhered to one of the differentiated segments of corporate governance, therefore listed on IGC.

Through these regulatory changes and incentives in the private field, Corporate Governance is a subject that is gaining prominence in Brazil. A number of articles have been published covering this subject, while various publicly held corporations with shares traded on Bovespa are striving to adopt good corporate governance practices and the majority of companies that opened their capital in Brazil over the last years have done so after joining one of the differentiated segments of corporate governance.

2.3. Corporate governance, value and returns

Many of the studies published seek to evaluate if the adoption of good corporate governance practices have in some way helped to increase the price of the shares and the reduction of cost of capital for the companies. In this direction, Kappler and Love (2002) evaluated companies in 14 emerging markets and found that better corporate governance practices correlate

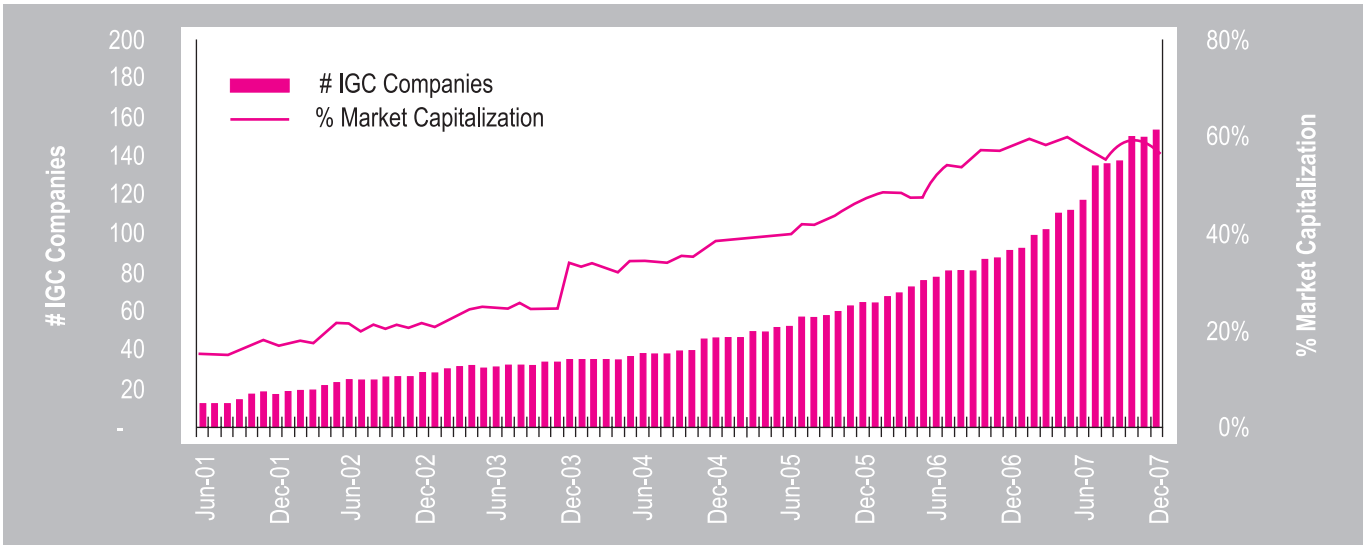
Table 1

Main Requirements for the Differentiated Segments of Corporate Governance

No differentiated Level	Level 1	Level 2	New Market
• All requirements of applicable law	+ • Free float of at least 25% • Additional information in SFS and QRI	+ • BD with no less than 5 members, of which 20% independent • Publication of AFS based on US GAAP or IFRS standards • Obligatory adoption of MMC • Tag along of 100% for OS shares and 80% for PS shares	+ • Only OS shares admitted

Note: Each level includes all the requirements of the lower levels. Abbreviations adopted: SFS = Standard Financial Statements (DFP – *Demonstrações Financeiras Padronizadas*); QRI = Quarterly Results Information (ITR – *Informações Trimestrais*); BD = Board of Directors; AFS = Annual Financial Statements; US GAAP = Generally Accepted Accounting Principles or IFRS = International Financial Reporting Standards; MMC = Market Mediation Chamber; OS shares = ordinary shares; PS shares = preferred shares.

Information source: Bovespa (2008c, 2008d, 2008e).



Graph 1: Evolution of Number of Companies in IGC and Their Market Capitalization

Note: Data obtained from the Bovespa data base.

with higher operational performance and market value of the companies that adopt them.

Similar conclusions were obtained in Brazil. Silveira, Barros and Famá (2005) pointed out the positive and significant influence of the quality of corporate governance on the market value of the companies, using different econometric approaches for a sample of 154 Brazilian companies traded on the stock market. Leal and Da Silva (2005) found that good corporate governance practices increase the value of the companies, based on questionnaires filled out by the authors with 24 questions, the replies to which can be found in public sources.

On the other hand Vieira and Mendes (2004, p.117) also arrived at positive results:

- "[...] corporate governance, while providing reduction of the imbalance of information existing between the company and the agents involved, tends to cause a reduction of the cost of capital".

Aguiar, Corrar and Batistella (2004, p.338) state that the reduction in the cost of capital was one of the aims of Bovespa when it launched the differentiated segments of corporate governance.

Savoia, Sako and Saito (2007) found evidence that the shares of companies adhering to one of the differentiated segments of corporate governance see their cost of capital reduced, according to the authors, by the "lesser probability of expropriation of wealth". In this sense – other conditions remaining unchanged – a company migrating to one of the differentiated segments of corporate governance and having its cost of capital reduced, would see its value enhanced.

Other published studies evaluate what impact migration from the traditional trading environment to some of the Differentiated Corporate Governance Levels of Bovespa could have. Carvalho (2003, p.1), in a study of events of migration to the differentiated segments of corporate governance, concluded that

- "the migration has impact on the valuation of the shares (existence of abnormal positive returns), increase in the volume of trading, increase in liquidity and a reduction of exposure to macroeconomic factors".

Rogers, Ribeiro and Sousa, (2005b) found that the IGC has a risk per unit of return slightly below that of Ibovespa. Also in an event study, Savoia, Sako and Saito (2007) reached conclusions that suggest growth of trading volume, reduction of risk (represented by the share's beta) and lower variability of dispersion of returns at the time of migration. Still on the subject of Corporate Governance, some studies look for relationships between the IGC and Ibovespa. Securato (2006), studying the behaviour of Ibovespa and the IGC between June 2001 and March 2006, found that the returns of these two indices are different, also having set up a purged Ibovespa index which eliminates from Ibovespa the shares of companies that have adhered to the differentiated segments of corporate governance. The author furthermore found that the returns of IGC and the expurged Ibovespa are also different. In both cases, the results point to the superiority of the IGC. Rogers, Ribeiro and Sousa (2005a) compared the averages and medians of IGC with the Ibovespa through the method of **bootstrap** resampling and found that the IGC showed superior performance, emphasizing the effectiveness of adopting best governance practices. Along

the same lines, Macedo and Siqueira (2006), while observing the behaviour of Ibovespa and of IGC between 2002 and 2005, found that the shares composing IGC showed advantages as to returns, compared to those shares listed solely on Ibovespa, attesting again to the positive impacts of the adoption of good corporate governance practices.

- "When we observe half-yearly returns (variation of indices) IGC shows superior returns compared to Ibovespa in all periods. These results demonstrate a clear trend that companies applying corporate governance practices tend to present improved profitability compared to companies that choose not to adhere to such criteria" (MACEDO and SIQUEIRA, 2006, p.8).

Other studies did not manage to show statistically significant results that would point to the positive effects of good corporate governance practices. Batistella *et al.* (2004) made a study of event related to the shares of some of the differentiated segments of corporate governance and failed to find statistically reliable results that would show abnormally positive returns, indicating that probably no major increase in value of the companies that adopted good corporate governance practices occurred. Camargos and Barbosa (2006) also failed to find meaningful advantages in the returns of shares and the creation of value to shareholders of shares that entered some of the differentiated segments of governance of Bovespa.

It may be emphasized that adherence to the simplest level, Level 1, seems to be of the least – if any – impact, which is to be expected given the low level of requirements at this first level. Aguiar, Corrar and Batistella (2004) applied the Wilcoxon test for two paired samples, comparing the performance of the shares of 33 companies before and after adherence to Level 1, not having found meaningful positive changes with migration of shares to this level. Macedo, Mello and Tavares (2006), using the same method, also found no statistically significant evidence to accept the hypothesis that adherence to Level 1 of Corporate Governance would alter the perception of risk of the companies, by investors.

The fact that the history of share pricing in the differentiated segments of corporate governance was still relatively recent, may in some way explain the diverging results of the studies herein analysed. Aguiar, Corrar and Batistella (2004) and Carvalho (2003) commented that some companies, when migrating to Level 1, already showed good corporate governance practices, sometimes having already issued American Depositary Receipts (ADR) at the time; which also influences the result of these same studies. Another probable cause is the endogeneity between adoption of a differentiated level of governance and performance of the company.

The studies cited aim to ascertain if a company has a superior performance due to adherence to a differentiated level of corporate governance. But the opposite explanation may also be reasonable. Companies may improve the level of their corporate governance as a consequence of very good performance, in an attempt to consolidate it, facilitate the raising of capital necessary for expansion or simply to accompany a market fashion. Governance causes performance or performance causes governance, that is the question.

The probable presence of relevant endogeneity between both variables is shared by Silveira, Barros and Famá (2005, p.25):

- "[...] corporate governance is probably determined in an endogenous form, starting from observable characteristics of the company". Furthermore "company performance seems to influence the adoption of best corporate governance practices".

2.4. Initial public offer (IPO), underpricing and returns

Several studies indicate that the shares of companies going public on the stock exchange experience an abnormal positive return during the first months after start of trading.

According to Brau and Fawcett (2006), IPOs are valued on average at a price below the closing price on the first day of trading – the so called – underpricing, which is perhaps the most studied topic in the literature about IPOs. Several authors have attempted to identify the causes of this practice of underpricing. Shiller (1990), for example, argues that the agents involved in the process of subscribing shares in IPOs tend to practice underpricing as a form of creating an appearance of excess demand, which would attract more investors and would encourage a rally in the share price on the first day of trading. Rock (1986) doesn't arrive at only one explanation to justify the causes of underpricing, but states that this practice may in fact cause stronger demand, creating a bias in pricing as it may attract uninformed investors.

The fact that participants in the subscription process of IPOs reduce the value of the shares may also be explained in other ways. Ritter (1998) associates this fact to what he called "the winner's curse hypothesis". According to this hypothesis, when offering the shares in an IPO at a price below that calculated by valuation methods, demand would tend to increase and with it, the probability of there being an apportionment of shares (**haircut**) amongst investors. Uninformed investors when faced with the **haircut** would tend to believe that the high demand may be related to information they don't possess, which would make them purchase more shares on the first day of trading and thereby increase the price of the shares. By the same token, if underpricing is not practiced, it is possible that demand may not be so strong and consequently, the possibility of an apportionment of shares will be less. Faced with this situation, uninformed investors might associated the lower demand to some negative factor they ignore, which could help a lower pricing trend of the shares on the first day of trading. In the same way, the author relates the practice of underpricing with

some other factors: opportunism (which he christened with the expression **bandwagon effects**), the hypothesis of the investment bank's power of monopsony and dispersion of shareholders.

The bandwagon effects occur when individuals start taking decisions based on what other people are doing. Thus investors start paying attention not only to the analysis of the valuation of the shares in the IPO process, but also if other investors are also purchasing the assets in question. In this way you could justify the mechanism of underpricing, anticipating that the bandwagon effects will take place, which could help increase the demand for the shares and the price boost of the asset on the first day of trading.

The opposite may also be prejudicial to the success of the launch of the share: if the papers are offered without underpricing, or with only a small discount on the valuation price, there could be a drop in the asset price due to a possible lower demand. This can make investors believe that the shares are being launched at a price above that of the calculated valuation or even that the company is in urgent need of cash, something that might cause the impression that the papers might suffer a price fall on the launch date.

The hypothesis of the investment bank's monopsony power when involved in an IPO is related to the fact that this agent supposedly has an accurate picture of the market conditions and of the company which desires to open its capital. Based on this insight, an investment bank will decrease the price of shares as a form of reducing its efforts to place these papers and to try to guarantee the success of its job as advisor in the process of opening the share capital.

On the other hand, it may be the intention of the controlling group that the capital is widely spread amongst a number of small investors, which in some way could insulate the owners of the company to be questioned by minority shareholders after going public. In this way, underpricing would allow a larger number of investors to have access to the shares of the company, which would justify this practice.

If on the one hand there are indications that underpricing could increase the demand for the papers and contribute to a rally of the shares on the first day of trading, on the other hand the company ends up selling such shares at a lower price and consequently raises less resources by opening its capital. Daniel (2002) discusses this question at length. Despite the company raising less money through this operation, there would be an intangible gain: if the shares increase in value on the first day of trading this will indicate that the company has a good reputation with investors and in this way, will tend to obtain even greater success in future operations in the capital markets. Another way to look at this problem would be that, despite the reduction in unit price of the shares to be issued, the company could choose to increase the number of shares to be issued, thus increasing the value to be raised through the opening of capital.

There are indications that this practice is relatively common. Aggarwal, Leal and Hernandez (1993) studied publicly traded companies in Brazil, Chile and Mexico and noted abnormal positive returns in the first months of trading of companies that went through IPO proceedings. Sixty-two companies that went public in Brazil between 1979 and 1990 were studied and it was found that the shares of such companies showed an average initial return of 78.5%, this average return having been adjusted by the market in one year to 39.2% and a devaluation of 25.6% in three years. Leal (2005) analyzed the performance of shares of companies that went public in Brazil between 1979 and 1992 and arrived at a similar conclusion: adjusted average return of 74.1% on the first day of trading, but of only the equivalent to 31% of Ibovespa in three years after opening capital. Brau and Fawcett (2006) researched 336 chief financial officers (CFOs) and concluded that they are quite conscious of this phenomenon of underpricing. The study shows that the majority of researchers attribute underpricing to a compensation to investors for taking on the risk of an initial public offer. The paper IPOALL08 (2009) indicates an average of 17.3% of underpricing. Along the same lines, Loughran, Ritter and Rydovist (1994) listed studies performed in 39 countries which pointed to an abnormal price increase of the shares on the first day of trading.

Some research work shows a trend for initial average returns which are higher in periods of greater optimism of the markets – these periods are also called **hot markets**. Borges (2007) found that in Portugal, the average underpricing of shares of companies that went public before the market crash of October 1987 was 87.5%, whereas this practice was not observed for those IPOs executed after the crash. Derrien and Womack (2003) noted that in times when significant and repeated surges in the price of assets on the financial markets are evidenced (**hot markets**), the optimism of investors can cause higher initial average returns, thereby arriving at a similar conclusion, associating times of optimism in the markets to higher values of underpricing.

Ibbotson, Sindelar and Ritter (1994) also pointed out the trend for higher average initial returns in periods of higher quantities of public offers, using for this purpose, IPOs registered with the SEC (Securities and Exchange Commission) in the United States between 1977 and 1996.

This phenomenon can also be found in Brazil with the return of IPOs initiated in 2003. Freitas, Savoia and Montini (2008) pointed out that companies that went public through IPO on Bovespa between 2004 and 2006 showed positive short term returns and, in some cases, in periods of up to one year after the event. Maciel (2006) measures the same mechanism, showing that in the IPOs of January 2004 through May 2006 the underpricing of the shares was 9.6% and was greater when there was higher participation of informed investors and in companies that could present greater asymmetry of information.

Cornelli, Goldreich and Ljungovist (2004) also noted that in times of market optimism there is a tendency for a rally of

recently-launched shares in IPOs. However the authors also noted that these rallies, especially if associated to purchases by small investors motivated by market optimism, tend to dissolve over the long term.

Seen through this long term perspective, however, results tend to show a certain deviation. Thus, Kooli, L'Her and Suret (2006) effected a study of events with Canadian assets. The authors uncovered evidence of superior returns during the first three years subsequent to an IPO; however, they warn of the difficulty of proving unusual return over the long term.

On the other hand Ritter (1991), using a sample of 1.526 IPOs undertaken in the United States between 1975 and 1984, found that in three years after going public, the shares showed a lower result compared to the average obtained by companies of a similar size and in the same field of activity. Part of this result, according to the author, may be attributed to the phenomenon of underpricing, which can lead to higher initial average returns and in the long run, with below average performance.

2.5. The higher IGC return

IGC was created in 2001 with the purpose of measuring the performance of a portfolio made up of shares of companies classified in one of the three differentiated segments of corporate governance.

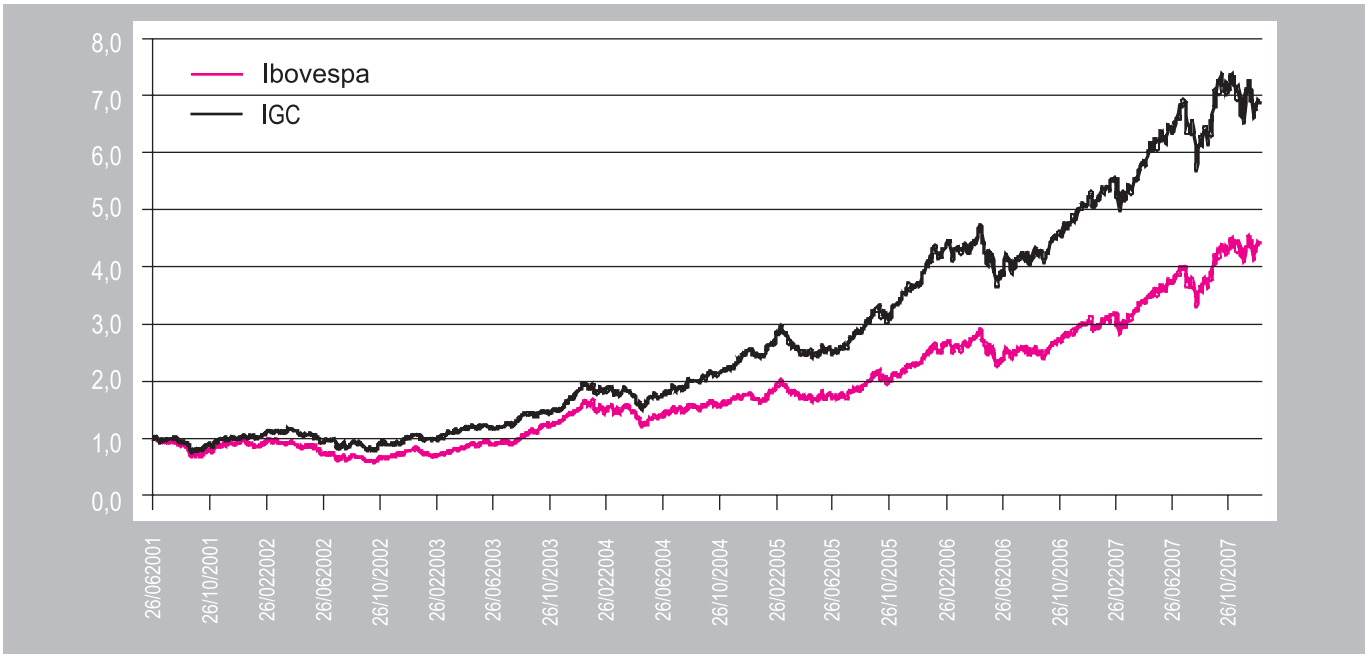
Graph 2 shows the increase in value of IGC and Ibovespa, since founding of the IGC. The accumulated return of IGC over the period between June 26 2001 and December 31 2007 was 588%. In comparison the Ibovespa gained 342% over the same period.

Looking at the eligibility and inclusion criteria of both indices (BOVESPA, 2008a, 2008b), one can note that IGC allows the immediate inclusion of shares of recently launched companies. A share is included in IGC after the closing: of the first regular trading session for the shares of new companies; of the previous trading session in any of the differentiated segments of corporate governance for the shares of companies already trading on Bovespa.

It becomes clear that IGC attempts to measure the return of a portfolio of shares of companies that have adhered to one of the differentiated segments of corporate governance, practically from the moment of their joining. The question that arises: is the immediate entry of these shares into IGC in some way linked to the superior return of IGC compared to the performance of the other indices?

The assumption that migration to one of the differentiated segments of corporate governance aids to increase its price and companies that open their capital experience an unusual positive return in the first months after start of trading, motivate the questions that originate this article. The higher return of the shares that make up the IGC is due to:

- a continuous higher return (long term effect), inherent to the shares of companies with good corporate governance; or
- a temporary higher return (short term effect), specific to the initial increase in value of shares of those companies that



Graph 2: Accumulated Profitability of Ibovespa and IGC

Note: Unit base June 26, 2001. Data obtained from Bloomberg data base.

initiate negotiations (IPO) on stock exchanges and migrate to one of the differentiated segments of corporate governance.

Some companies were already listed on Ibovespa (at least with one class of their shares) on the date of their migration from the traditional segment to one of the differentiated segments of corporate governance. If a higher return of their shares occurred on this occasion, this superior return will have benefited not only IGC but also Ibovespa. Of the total cases of migrations and IPOs, 35% are migrations and 65% are IPOs. Of the migrations, 52% correspond to shares which made up Ibovespa and 48% did not. This study makes no distinction between the migration of companies that were already listed on Ibovespa from those that were not listed, therefore this is one of the limitations of this article.

3. METHODOLOGY

The overall objective of this article is to test whether the superior return of IGC relative to the Ibovespa is due to the initial increase in value of the shares when they become recognized as belonging to differentiated segments of corporate governance, be it by IPO or migration.

3.1. New Portfolio and Old Portfolio

The shares that make up the monthly portfolio of IGC were grouped into two portfolios:

- A New Portfolio, containing the shares of those companies that had recently adhered to one of the differentiated segments of governance. The concept 'recent' is tested for 1 to 12 months.
- An Old Portfolio, comprising the remaining shares that make up the IGC.

In both portfolios the weighting of the shares was recalculated so that the sum of the weights of the shares in each portfolio in each month is equal to 100%.

The returns of the two portfolios are calculated for each month: the New Portfolio and the Old Portfolio. The New Portfolio captures the return of the shares in the first month or months after adherence to one of the differentiated segments of corporate governance, following migration to one of these levels or its initial public offer already at one of these levels. The Old Portfolio captures the returns of the shares after the first month or months of adherence to one of these levels by migration or IPO. Those months in which there is neither New Portfolio nor Old Portfolio are ignored.

Hypothesis H-I is that the IGC New Portfolio has higher average return to that of the IGC Old Portfolio; hypothesis H-II is that the IGC New Portfolio will have a higher average return compared to Ibovespa; and hypothesis H-III is that the IGC Old Portfolio does not show average return different from that of Ibovespa. If these hypotheses are corroborated in their entirety, they indicate that the apparent higher return of the shares of companies that adhered to one of the differentiated segments of corporate governance, be it by IPO or by migration, is due to their initial increase in value and not to a continuous higher return.

For these tests, the research universe constitutes all those shares that are components of IGC and of all the monthly portfolios of IGC starting June 29 2001 through December 28 2007. It should be stated that the last portfolio used was that of November 30 2007, considered as valid for the period December 1 2007 until December 28 2007 (last business day of 2007). The monthly IGC portfolios are those made available by Bovespa (2008f). Closing prices of shares that make up the IGC portfolio were obtained and adjusted as regards to dividends, bonus income and other types of capital distribution using the data base of Bloomberg.

It should be noted that the IGC portfolio may show daily variations, as the IGC is subject to changes in its composition each day on which a share becomes eligible to listing on IGC. This study uses the monthly portfolio and not the daily IGC portfolio, therefore part of the higher return of shares entering IGC is diluted, this being one of the limitations of this article.

3.2. GC Portfolio *versus* Non GC Portfolio

As one of the most heard arguments is that of the superiority of the IGC over the Ibovespa, it becomes necessary to include this second index in our analysis. The shares that make up the monthly Ibovespa portfolio were also grouped into two portfolios:

- One GC Portfolio, containing the shares of companies that adhered to one of the differentiated segments of corporate governance.
- One Non GC Portfolio, containing the remaining shares that compose the Ibovespa.

In both portfolios, the weighting of the shares was recalculated so that the sum of the weights of the shares in each portfolio in each month is equal to 100%.

The return of both portfolios: the GC Portfolio and the Non GC Portfolio is calculated for each month. The GC Portfolio captures the return of the shares of companies that adhered to one of the differentiated segments of corporate governance. The Non GC Portfolio captures the returns of the shares of companies that did not join any of the differentiated segments of corporate governance.

Hypothesis H-IV is that the IGC New Portfolio will show a higher average return than that of the Non GC Portfolio of Ibovespa; Hypothesis H-V is that the IGC Old Portfolio will not show an average return different from that of the Non GC Portfolio of Ibovespa; Hypothesis H-VI is that the GC Portfolio of Ibovespa does not show average returns different from that of the Non GC Portfolio of Ibovespa. Looked at jointly, the

corroboration of these hypotheses increases the validity of the conclusions of the foregoing test, beyond the IGC portfolio, to embrace the portfolio most utilized to describe the return of the Brazilian stock market.

It has been added to the data research universe the shares making up Ibovespa which are not part of the IGC and all the monthly portfolios of Ibovespa from June 29 2001 until December 28 2007.

3.3. Statistical approach

The null hypothesis H0 of the hypothesis test for this work is generically, that the average monthly return of a given Portfolio 1 is not significantly different to the average monthly return of a given Portfolio 2, or,

$\mathbf{H_0}$: $\mu_{\text{Portfolio 1}} = \mu_{\text{Portfolio 2}}$

The complementary one-sided alternative hypothesis is that the average monthly returns of Portfolio 1 are significantly higher than those of Portfolio 2, therefore:

$\mathbf{H_1}$: $\mu_{\text{Portfolio 1}} > \mu_{\text{Portfolio 2}}$

As both portfolios are present in the same month, the test of average returns uses the variant of paired data. According to Lapponi (2000, p.347),

- "in this case the variable of interest will be the difference between the pairs of both samples, in place of the samples themselves, which must be of the same size",

the same procedure having also been suggested by Costa Neto (1977), which reduces the test to a single sample composed of the *n* differences. Using this procedure, the explainability power of the data increases relative to the variant of non paired data, as stated by Costa Neto (1977, p.109):

- "whenever possible and justifiable we should promote the pairing of data, since we will obtain additional information which leads us to statistically stronger results".

Therefore, for hypotheses H-I to H-VI shown under items 3.2 and 3.3 tests will be performed as presented in table 2.

Hypotheses are tested using the Student's t statistic, for paired data. To avoid that possible outliers make the distribution abnormal and compromise the test of difference of averages, this test was executed in two versions: with the outliers and without the outliers, with similar results. As outliers it has been considered the differences of returns higher than three standard deviations. Each series of data had a maximum of 2 outliers. The normality of the differences between the paired data, for the sample without outliers, was corroborated in all cases by the test of Jarque-Bera, for a level of significance of 5%.

4. DATA ANALYSIS

The empirical evidence as shown in table 3, indicates that the IGC New Portfolio has an average monthly return higher than that of the IGC Old Portfolio for scenarios of 4 to 9 months. In these scenarios therefore, H-I_0 is rejected. When a share has been the object of classification in differentiated segments of corporate governance, be it by migration or IPO, it had an initial return (rally) systematically higher than that of the remaining shares of IGC. This result is in line with the abnormal positive return for shares of companies that migrated to the differentiated segments of corporate governance found by Carvalho (2003), amongst other authors, and also with the positive short term return of shares of companies that went public (IPO), as found by Freitas, Savoia and Montini (2008).

For periods of more than 9 months the effect of shares that undertook IPO and of those that migrated to one of the differentiated segments of corporate governance is diluted, since they became old in IGC and are better classified within the IGC Old Portfolio.

Within a time-frame of 1 to 3 months, the difference between the returns of the New Portfolio and that of the Old Portfolio is not statistically meaningful. Observation of the average returns shows that there is a fall, not statistically meaningful, within

Table 2

Summary of the Hypothesis and Tests Performed

Hypothesis	H_0	H_a	Expectation
H-I	$\mu_{\text{New Portfolio}} = \mu_{\text{Old Portfolio}}$	$\mu_{\text{New Portfolio}} > \mu_{\text{Old Portfolio}}$	Rejection of H_0
H-II	$\mu_{\text{New Portfolio}} = \mu_{\text{Ibovespa Portfolio}}$	$\mu_{\text{New Portfolio}} > \mu_{\text{Ibovespa Portfolio}}$	Rejection of H_0
H-III	$\mu_{\text{Old Portfolio}} = \mu_{\text{Ibovespa Portfolio}}$	$\mu_{\text{Old Portfolio}} > \mu_{\text{Ibovespa Portfolio}}$	Corroboration of H_0
H-IV	$\mu_{\text{New Portfolio}} = \mu_{\text{Non GC Portfolio}}$	$\mu_{\text{New Portfolio}} > \mu_{\text{Non GC Portfolio}}$	Rejection of H_0
H-V	$\mu_{\text{Old Portfolio}} = \mu_{\text{Non GC Portfolio}}$	$\mu_{\text{Old Portfolio}} > \mu_{\text{Non GC Portfolio}}$	Corroboration of H_0
H-VI	$\mu_{\text{GC Portfolio}} = \mu_{\text{Non GC Portfolio}}$	$\mu_{\text{GC Portfolio}} > \mu_{\text{Non GC Portfolio}}$	Corroboration of H_0

Table 3

Summary of Results: New Portfolio versus Old Portfolio

	Average Monthly Return (With Outliers)		Difference		Number of Observations	
	New Portfolio %	Old Portfolio %	With Outliers %	Without Outliers %	With Outliers	Without Outliers
1 month	2.3	2.9	-0.6	-0.6	50	50
2 months	4.9	3.1	1.8*	0.5	65	63
3 months	4.5	2.9	1.6*	0.5	72	70
4 months	4.2	2.7	1.5**	1.0*	73	72
5 months	4.2	2.6	1.6**	1.6**	73	73
6 months	4.1	2.7	1.4**	1.4**	72	72
7 months	4.0	2.7	1.3**	1.3**	71	71
8 months	3.6	2.5	1.1*	1.1*	70	70
9 months	3.6	2.6	1.0*	1.0*	69	69
10 months	3.5	2.6	0.9	0.9	68	68
11 months	3.5	2.8	0.7	0.7	67	67
12 months	3.4	3.0	0.4	0.4	66	66

Note: Columns New Portfolio and Old Portfolio refer to the average monthly result, with outliers, of the New Portfolio and Old Portfolio taken from IGC. Hypothesis H-I tests the equality of the monthly average returns of both portfolios considering the paired data, where H-I_0 is the hypothesis of its equality and H-I_a is the one-sided alternative hypothesis. Columns titled Difference refer to the differences of the average monthly returns of both portfolios, presented for the test with outliers and also for a test without outliers (***significant at 1%, ** significant at 5%, * significant at 10%). The number of observations corresponds to the number of months, within the period analyzed (June 2001 to December 2007), in which the Old Portfolio and the New Portfolio existed and are presented for the test with outliers and also for the test without outliers. The lines correspond to the number of months starting with adherence of the company to one of the differentiated segments of corporate governance considered in the decomposition of IGC data for the formation of the New Portfolio, and consequently, the Old Portfolio.

the first month, which spreads to the returns of the subsequent periods. If it were not for this adverse effect in the first month, the statistical significance of the difference in returns could be significant already from a period of 2 months. The negative return of the first month may be explained by profit taking by the speculative investor on the launch day of the share (**underpricing**), an effect found by various authors but which is not captured by the IGC.

Furthermore, two other factors contribute toward the same phenomenon, both of low explanatory value. One factor for the non-significance during the first months is that, with less shares making up the New Portfolio, its variance is higher. In fact the variance of the New Portfolio is 1.0%, 1.1% and 1.1% for the scenarios of 1 month, 2 months and 3 months respectively, whereas it is 0.7% for the scenario of 4 to 6 months and 0.6% for the scenarios of 7 to 9 months. This discrepancy is reduced when the outliers are taken out. The impact of this increase in variance offers only partial explanation for this phenomenon.

Another factor is that when considering short periods, the shares with differentiated returns are transferred too soon to the Old Portfolio. Consequently, part of the higher initial return of the shares whose differentiated governance is recognized, is transferred to this portfolio. Whereas this factor is present it must also be considered of low explanatory impact, as the weight of these shares recently transferred from the Old Portfolio is low, generally below 3%.

As seen in table 4 and table 5, evidence indicates that the New Portfolio has an average monthly return higher than that of Ibovespa (for scenarios from 4 to 8 months, H-II_0 is rejected), not pointing in this same direction as regards the Old Portfolio with an average monthly return higher than Ibovespa (H-III_0 is not rejected).

When a share was classified in one of the differentiated segments of corporate governance (New Portfolio), either by migration or by IPO, its initial return (rally) was systematically higher than that of the shares of Ibovespa. The remaining shares of the IGC (Old Portfolio) on the other hand, had a return similar to that of Ibovespa. It becomes evident that the higher return of the IGC in relation to Ibovespa is due to the rally of the shares entering IGC and not of some later continued higher return of the shares of companies with a differentiated level of governance.

Table 4

Summary of the Results: New Portfolio versus Ibovespa

	Average Monthly Return (With Outliers)		Difference		Number of Observations	
	New Portfolio %	Ibovespa %	With Outliers %	Without Outliers %	With Outliers	Without Outliers
1 month	2.3	2.8	-0.5	-0.5	50	50
2 months	4.9	3.0	1.9*	0.6	65	63
3 months	4.5	2.8	1.7*	0.5	72	70
4 months	4.2	2.7	1.5**	1.0*	73	72
5 months	4.2	2.5	1.8**	1.8**	73	73
6 months	4.1	2.4	1.7**	1.7**	72	72
7 months	4.0	2.5	1.4**	1.4**	71	71
8 months	3.6	2.4	1.2*	1.2*	70	70
9 months	3.6	2.5	1.0*	0.8	69	68
10 months	3.5	2.6	0.9	0.7	68	67
11 months	3.5	2.7	0.8	0.8	67	67
12 months	3.4	2.9	0.5	0.5	66	66

Note: Columns New Portfolio and Ibovespa refer to the average monthly return, with outliers, of the New Portfolio extracted from IGC and from Ibovespa. Hypothesis H-II tests the equality of the average monthly returns of the portfolios considering paired data, where $H\text{-}II_0$ is the hypothesis of its equality and $H\text{-}II_a$ the one-sided alternative hypothesis. The columns titled Difference refer to the differences of the average monthly returns of both portfolios, presented for the test with outliers and for the test without outliers (***significant at 1%, ** significant at 5%, * significant at 10%). The number of observations corresponds to the number of months within the period considered (June 2001 to December 2007), in which the Old Portfolio and the New Portfolio existed, and are presented for the test with outliers and for the test without outliers. The lines correspond to the number of months starting with adherence of the company to one of the differentiated segments of corporate governance considered in the decomposition of data from IGC for setup of the New Portfolio, and consequently for the Old Portfolio.

Table 5

Summary of the Results: Old Portfolio versus Ibovespa

	Average Monthly Return (With Outliers)		Difference		Number of Observations	
	Old Portfolio %	Ibovespa %	With Outliers %	Without Outliers %	With Outliers	Without Outliers
1 month	2.9	2.8	0.1	0.1	50	50
2 months	3.1	3.0	0.1	0.2	65	64
3 months	2.9	2.8	0.0	0.2	72	71
4 months	2.7	2.7	0.1	0.2	73	72
5 months	2.6	2.5	0.1	0.3	73	72
6 months	2.7	2.4	0.2	0.4	72	71
7 months	2.7	2.5	0.1	0.3	71	70
8 months	2.5	2.4	0.1	0.2	70	69
9 months	2.6	2.5	0.0	0.0	69	69
10 months	2.6	2.6	0.0	0.0	68	68
11 months	2.8	2.7	0.1	0.1	67	67
12 months	3.0	2.9	0.1	0.1	66	66

Note: The columns Old Portfolio and Ibovespa refer to the average monthly return, with outliers, of the Old Portfolio extracted from IGC and from Ibovespa. Hypothesis H-III tests the equality of the average monthly returns of both portfolios considering paired data, where $H\text{-}III_0$ is the hypothesis of its equality and $H\text{-}III_a$ the one-sided alternative hypothesis. The columns titled Difference refer to the differences of the average monthly returns of both portfolios, presented for the test with outliers and also for the test without outliers, none of them significant at 10%. The number of observations corresponds to the number of months, within the period considered (June 2001 to December 2007), in which the Old Portfolio and the New Portfolio existed, and are presented for the test with outliers and for the test without outliers. The lines correspond to the number of months starting from adherence of the company to one of the differentiated segments of corporate governance considered in the decomposition of data of IGC for setup of the New Portfolio and, consequently for the Old Portfolio.

A possible explanation, to be tested, of the similarity of returns between the Old Portfolio of IGC and Ibovespa is that Ibovespa also contains shares from differentiated segments of corporate governance. Where there is a partial overlap between the portfolios, it would be natural to expect similar returns. To purge this effect from the conclusions, hypothesis H-IV_0 and H-V_0 were tested.

The evidence appearing in table 6 and in table 7 indicates that the New Portfolio has an average monthly return higher than that of the Non GC Portfolio (for scenarios of 4 to 9 and 11 months, rejecting H-IV_0), not pointing in this same direction as regards the Old Portfolio not obtaining an average monthly return higher than that of the Non GC Portfolio (H-V_0 is not rejected). The tests show that the bias of overlap of the Old Portfolio of IGC and of Ibovespa does not appear. The Old Portfolio of IGC and the Non GC Portfolio of Ibovespa show similar returns.

Finally, the evidence of table 8 corroborates that the GC Portfolio of Ibovespa has an average monthly return similar to the average monthly return of the Non GC Portfolio of Ibovespa (H-VI_0 is not rejected). In the period considered the monthly average of the first was 1.86% and the monthly average of the second was 1.92%, the difference being not significant at 10%.

Considering the shares making up Ibovespa, no significant difference was found between the returns of the shares of companies with and without differentiated levels of governance. A share is incorporated into the theoretical Ibovespa portfolio only after being traded in over 80% of the totality of sessions in relation to the 12 months prior to its establishment (BOVESPA, 2008b), therefore after its initial rally has run its course. As the Ibovespa does not capture the initial rally of IPOs, a similar return of both portfolios is to be expected. The fact of a company having a differentiated level of governance does not permit us to surmise that its shares will show a continued higher return compared to the remaining shares.

The summary of the results found are shown in table 9. All are in line with the expectation presented in table 2. Seen as a whole they corroborate the hypothesis that the higher return of IGC in relation to Ibovespa is a consequence of the initial price increase of the shares when they begin to be recognized as of differentiated governance, be it by IPO or by migration.

5. CLOSING CONSIDERATIONS

This article showed that the immediate inclusion into IGC of the shares of companies that adhere to one of the dif-

Table 6

Summary of the Results: New Portfolio versus Non GC Portfolio

	Average Monthly Return (With Outliers)		Difference		Number of Observations	
	New Portfolio %	Non GC Portfolio %	With Outliers %	Without Outliers %	With Outliers	Without Outliers
1 month	2.3	2.8	-0.5	-0.5	50	50
2 months	4.9	2.7	2.2**	0.9	65	63
3 months	4.5	2.6	2.0**	0.8	72	70
4 months	4.2	2.4	1.8**	1.2*	73	72
5 months	4.2	2.1	2.1***	2.1***	73	73
6 months	4.1	2.1	2.0**	2.0**	72	72
7 months	4.0	2.2	1.8**	1.8**	71	71
8 months	3.6	2.1	1.5**	1.5**	70	70
9 months	3.6	2.2	1.3*	1.0*	69	68
10 months	3.5	2.3	1.2*	0.9	68	67
11 months	3.5	2.4	1.1*	1.1*	67	67
12 months	3.4	2.6	0.8	0.8	66	66

Note: Columns New Portfolio and Non GC Portfolio refer to the average monthly returns, with outliers, of the New Portfolio extracted from IGC and of the Non GC Portfolio extracted from Ibovespa. Hypothesis H-IV tests the equality of the average monthly returns of both portfolios considering paired data, where H-IV_0 is the hypothesis of its equality and H-IV_a the one-sided alternative hypothesis. Columns titled Difference refer to the differences of the average monthly returns of both portfolios, presented for the test with outliers and also for the test without outliers (***significant at 1%, ** significant at 5%, * significant at 10%). The number of observations corresponds to the number of months, within the period considered (June 2001 to December 2007), in which the Old Portfolio and the New Portfolio existed and are presented for the test with outliers and for test without outliers. The lines correspond to the number of months starting from adherence of the company to one of the differentiated segments of corporate governance considered in the decomposition of data of IGC for setup of the New Portfolio, and consequently for the Old Portfolio.

Table 7

Summary of Results: Old Portfolio versus Non GC Portfolio

	Average Monthly Return (With Outliers)		Difference		Number of Observations	
	Old Portfolio %	Non GC Portfolio %	With Outliers %	Without Outliers %	With Outliers	Without Outliers
1 month	2.9	2.8	0.1	0.4	50	49
2 months	3.1	2.7	0.4	0.4	65	63
3 months	2.9	2.6	0.3	0.4	72	70
4 months	2.7	2.4	0.3	0.3	73	71
5 months	2.6	2.1	0.5	0.5	73	71
6 months	2.7	2.1	0.5	0.6	72	70
7 months	2.7	2.2	0.5	0.5	71	69
8 months	2.5	2.1	0.4	0.4	70	68
9 months	2.6	2.2	0.3	0.6	69	68
10 months	2.6	2.3	0.3	0.6	68	67
11 months	2.8	2.4	0.4	0.7	67	66
12 months	3.0	2.6	0.4	0.7	66	65

Note: Columns Old Portfolio and Non GC Portfolio refer to the average monthly results, with outliers, of the Old Portfolio extracted from the IGC and of the Non GC Portfolio extracted from Ibovespa. Hypothesis H-V tests the equality of the average monthly returns of both portfolios considering paired data, where H-V_0 is the hypothesis of its equality and H-V_a is the one-sided alternative hypothesis. Columns titled Difference refer to the differences of the average monthly returns of both portfolios, here presented for the test with outliers and also for the test without outliers, neither of them significant at 10%. The number of observations corresponds to the number of months, within the period considered (June 2001 to December 2007), in which the Old Portfolio and the New Portfolio existed, and are presented for the test with outliers and for the test without outliers. The lines correspond to the number of months starting from adherence of the company to one of the differentiated segments of corporate governance considered in the decomposition of data of IGC to make up the New Portfolio and consequently, the Old Portfolio.

Table 8

Summary of Results: GC Portfolio versus Non GC Portfolio

Average Monthly Return (With Outliers)	
• GC Portfolio	1.9%
• Non GC Portfolio	1.9%
Difference With Outliers	-0.1%
Difference Without Outliers	0.0%
Observations With Outliers	78
Observations Without Outliers	76

Note: Lines GC Portfolio and Non GC Portfolio refer to the average monthly return, with outliers, of the GC Portfolio and the Non GC Portfolio extracted from Ibovespa. Hypothesis H-VI tests the equality of the average monthly returns of the GC Portfolio and the Non GC Portfolio considering paired data, where H-VI_0 is the hypothesis of its equality and H-VI_a the one-sided alternative hypothesis. Lines titled Difference with outliers and Difference without outliers refer to the differences of the average monthly returns of the portfolios in question, none of these significant at 10%. The number of observations corresponds to the number of months within the period considered (June 2001 to December 2007), in which the GC Portfolio and Non GC Portfolio existed, both for the test with outliers as for the test without outliers.

ferentiated segments of corporate governance, by migration or by IPO, was decisive for the higher return of IGC when compared to Ibovespa, found in the period analyzed from June 26 2001 to December 31 2007.

Several authors have recorded higher returns in the first months subsequent to a migration to one of the differentiated segments of corporate governance and the opening of capital, observed separately. Considering that IGC benefits from both these effects and with a view to studying its impacts jointly on the higher return of IGC when compared to Ibovespa, the IGC portfolio was divided into two (IGC New Portfolio and IGC Old Portfolio) and the Ibovespa was divided into two (Ibovespa GC Portfolio and Ibovespa Non GC Portfolio). Comparing the average monthly returns of the different portfolios, empirical evidence showed significantly higher returns only for the IGC New Portfolio, in comparison to the IGC Old Portfolio, the Ibovespa Non GC Portfolio and Ibovespa, as presented in table 9, which may be attributed to the fact that the IGC New Portfolio is benefitted by the aforementioned higher returns.

It is known that a share is incorporated into Ibovespa only after it has been traded in over 80% of the total sessions in relation to the 12 months prior to its establishment (BOVESPA, 2008b), therefore Ibovespa, together with the GC Old Portfolio,

Table 9

Summary of the Results Found

Hypothesis	Result	Description
H-I	Rejection of H_0	The average monthly return of the New Portfolio of IGC was significantly higher to that of the Old Portfolio of IGC for the period of 4 to 9 months after IPO or the migration to a differentiated segment of governance.
H-II	Rejection of H_0	The average monthly return of the New Portfolio of IGC was significantly higher than Ibovespa for the periods of 4 to 8 months after IPO or the migration to a differentiated segment of governance.
H-III	Corroboration of H_0	The average monthly return of the Old Portfolio of IGC was not significantly higher than Ibovespa.
H-IV	Rejection of H_0	The average monthly return of the New Portfolio of IGC was significantly higher to that of the Non GC Portfolio of Ibovespa for the periods of 4 to 9 and 11 months after IPO or migration to a differentiated segment of governance.
H-V	Corroboration of H_0	The average monthly return of the Old Portfolio of IGC was not significantly higher to that of the Non GC Portfolio of Ibovespa.
H-VI	Corroboration of H_0	The average monthly return of the GC Portfolio of Ibovespa was not significantly higher to that of the Non GC Portfolio of Ibovespa.

Note: Results found significant at 10%. Analysis made with shares constituting IGC and Ibovespa in the period June 26 2001 to December 31 2007.

Ibovespa Non GC Portfolio and Ibovespa GC Portfolio do not benefit from the higher return of the shares of companies that adhered to one of the differentiated segments of corporate governance, be it by IPO or by migration (except in this latter case, when the share of the company was already a member of Ibovespa on the date of migration) and therefore, it really could not be expected to present significantly higher returns, as in fact they do not.

Therefore, overall the tests show that the higher return of IGC compared to Ibovespa may be attributed to the initial rally of the shares of companies when they are recognized as having a differentiated level of governance, either by migration or by IPO. The mere comparison of the performance of IGC in relation to other indices does not permit one to state that the adoption of good corporate governance practices results in a significantly continued (long term) higher return of the shares of companies that adhered to one of the differentiated segments of corporate governance.

Future research could investigate other characteristics which could also contribute to the higher return of IGC over Ibovespa, such as the difference in liquidity of the shares that make up the IGC and those that make up Ibovespa and consider a more extended period of time, when presumably there will have been a relatively smaller number of shares entering the IGC. ◆

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ABSTRACT

IGC x Ibovespa: the impact of the rally of stocks entering the IGC

The IGC (Special Corporate Governance Stock Index) has experienced higher returns relative to the Ibovespa (Bovespa Index) in the period 2001 to 2007. This simple comparison suggests that good corporate governance practices could lead to superior returns. Stocks of firms with differentiated level of corporate governance are immediately incorporated into the IGC, in contrast to the twelve-month vesting period required for new stocks to integrate the Ibovespa. Stocks of firms that have just undertaken an IPO or that have migrated to a differentiated level of corporate governance tend to experience short-term superior returns. The tests that were performed showed that the IGC's superior return relative to Ibovespa's can be attributed to the initial superior return of stocks of firms that have their differentiated level of governance recognized, either by migration or IPO. They also show that, purging this initial rally, the stocks of firms with differentiated level of governance and those without do not experience continuous return (in the long run) significantly different.

***Keywords*:** IGC, corporate governance, capital market.

RESUMEN

IGC e Ibovespa: el impacto del *rally* de las acciones entrantes en el IGC

El Índice de Acciones con Gobierno Corporativo Diferenciado (IGC) presentó retorno superior al Índice de la *Bolsa de Valores de São Paulo* (Ibovespa) entre 2001 y 2007. Esta simple comparación podría apuntar hacia el retorno superior de las empresas con buenas prácticas de gobierno corporativo. Las acciones de empresas con nivel diferenciado de gobierno corporativo son incorporadas inmediatamente al IGC, mientras que hay un período de carencia de 12 meses para el ingreso de las nuevas acciones al Ibovespa. Las acciones de empresas que hicieron oferta pública inicial (IPO – *initial public offering*) o migraron a un nivel diferenciado de gobierno tienen usualmente un retorno inicial superior. Los tests realizados muestran que el retorno superior del IGC con relación al Ibovespa se puede atribuir al retorno inicial superior de las acciones de empresas que tuvieron reconocido su nivel diferenciado de gobierno, por migración o IPO. Además, los testes señalan que, expurgado ese efecto del *rally* inicial, las acciones de las empresas con y sin nivel diferenciado de gobierno no presentan retornos continuados (en el largo plazo) significativamente diferentes.

***Palabras clave*:** IGC, gobierno corporativo, mercado de capitales.