The impact of activism on the performance of publicly-traded companies

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ABSTRACT

Institutional investors hold the largest volume of financial resources in the world. The role of the institutional investor as a shareholder has evolved, and now institutional investors are engaged with increasing participation in companies. This active positioning, or activism, is defined as an increase of direct involvement by the investors in the management of companies and influence over corporate executives by vastly increased corporate governance. This paper proposes to analyze the impact of institutional investors' activism on the performance of publicly-traded companies in Brazil. The final sample composed of economic data from 351 companies. The financial and market performance was measured in the years from 2006 to 2015. For data analysis, a panel data effects model was chosen. Results suggest that the governance index moderates the effect of activism on performance, especially in companies where governance practices are not very developed.

PALAVRAS-CHAVE

Ativismo.
Investidor institucional.
Governança corporativa.
Desempenho.

RESUMO

Investidores institucionais detêm o maior volume de recursos financeiros no mundo. O papel do investidor institucional como acionista evoluiu e agora os investidores institucionais estão engajados com crescente participação nas empresas. Este posicionamento ativo, ou ativismo, é definido como um aumento do envolvimento direto dos investidores na gestão das empresas e da influência sobre os executivos corporativos por meio de uma governança corporativa ampliada. Este artigo se propõe a analisar o impacto do ativismo de investidores institucionais no desempenho das empresas de capital aberto no Brasil. A amostra final foi composta por dados de 351 empresas. O desempenho financeiro e de mercado foi mensurado nos anos de 2006 a 2015. Para a análise de dados, um modelo de efeitos fixos de dados em painel foi escolhido. Resultados sugerem que o índice de governança modera o efeito do ativismo no desempenho, especialmente em empresas em que práticas de governança não são muito desenvolvidas.

1 Introduction

Institutional investors are essential in global macroeconomic development, and in this context, pension funds, investment funds, and foreign investors stand out as a significant group of institutional investors. These investors represent a group that holds an enormous volume of capital resources in the world (MONKS; MINOW, 2004). As a result, the role of the institutional investor as a shareholder has evolved with increasing ownership in companies, from a passive shareholder position to an active participant in corporate governance (GILLAN, STARKS, 2000).

With greater participation in the control of companies, these investors implement the creation of mechanisms that prevent or mitigate the conflict between shareholders (and their equity) and managers (and their control). This dynamic is called the “agency problem” (EISENHARDT, 1989). The greater influence of these institutional investors leads to greater control over the managers of the companies, causing these managers to change their behavior in order to execute the institutional shareholder guidelines (BRUÈRE; MENDES DA SILVA; SANTOS, 2007).

By virtue of its position as a dominant and major shareholder, the institutional investor insists on requirements for companies to adopt control and management practices that ensure proper corporate governance conditions and helps guarantee the generation of shareholder value in the long term (AMARAL et al., 2004; RABELO, 1998).

In Brazil and other emerging economies, the ownership pattern is concentrated; more than 50% of the capital is held by the controlling institutional shareholder. In most cases, structured in the form of a pyramid, where cash flow rights are greater than voting rights (YOUNG et al., 2008).

In this scenario, corporate governance by the institutional investor emerges as a management practice that allows for controlling the company to meet the interests of the institutional shareholders as well as other parties, such as customers, society, government, suppliers, and employees, with some kind of interest and involvement with the company (IBGC, 2016; MATIAS, 2007; BRUÈRE; MENDES DA SILVA; SANTOS, 2007).

In this model, activism can be defined as the direct and substantial interference and influence in the management of a firm by institutional investors

through robust corporate governance, in which institutional shareholder participation in management and control of the firm makes possible a positive agenda that is more focused primarily on the defense of the interests of these new institutional business investors and owners (CRISÓSTOMO; GONZÁLEZ, 2006; GILLAN; STARKS, 2000; PUNSUVO; KAYO; BARROS, 2007).

In order to measure the impact of activism on the performance of companies, it is necessary to identify and typify the effective performance of the board of directors in controlling the company, and by measuring the effect of the activism of institutional shareholders (GILLAN; STARKS, 2000; IBGC, 2008; ROSSONI; MACHADO DA SILVA, 2010).

For Gillan and Starks (2000), the metrics for measuring company performance stemming from activism can be summarized by evaluating long term stock market performance and long term operational performance.

In this context, this research intends to answer the following question: What is the impact of institutional investors' activism, through corporate governance, on the performance of companies listed on BM&FBOVESPA in the period from 2006 to 2015?

2 Literature Review

2.1 Agency Theory

An agency relationship is defined by Jensen and Meckling (1976) as a formal agreement in which the (principal) owner hires the manager (agent) to perform the role of administrator with powers delegated to the administrator to meet the objectives of the principal.-

For Eisenhardt (1989), agency theory presents two problems that may arise from agency relations. The first arises when the desires and goals of the principal and the agent are either in conflict or when it is difficult or impractical to ascertain the reason behind the activities of the agent. The second problem comes about when the principal and the agent have different attitudes toward risk. In summary, in the first, for the principal, it is not possible to verify that the agent behaved properly, and in the second, the principal and the agent may engage in different actions because of different risk preferences.

One of the aspects of agency theory addressed by Jensen and Meckling (1976) is that the focus is on establishing the best contract to govern the relationship between principal and agent, considering the differences between how people and organizations behave and process information. Eisenhardt (1989) argues that a behavior-oriented contract between agents and principals may be more efficient than a results-oriented contract.

Young et al. (2008) point out that, unlike the principal and agent conflicts observed in most studies in developed economies, in the emerging economies, the main conflict is one concerning corporate governance. The main conflicts are a consequence of the following corporate governance aspects: the high concentration of property in a few individuals; the overabundance of family ownership and control; business group structures; and weak legal protection of minority shareholders. This scenario demands solutions different from those adopted in developed economies. In emerging economies, corporate governance solutions have to be changed to coincide with the management of the conflicts more closely related to the problems experienced in companies in emerging economies.

2.2 Corporate Governance

Based on the work of Berle and Means (1932), who studied how agency conflicts affected the performance and value of large North American companies, research on corporate governance emerged in the field of strategic management (BACH; KUDLAWICZ; SILVA, 2015). This type of conflict, observed by Berle and Means (1932) is reported by La Porta et al. (1998), where the authors observe that in countries where legal protection for investors is weak, there is a trend towards the concentration of ownership in the hands of a few and that corporate governance mechanisms are weaker where the levels of institutional protection in the country, especially those institutional protections associated with weak ownership structures. Because of these weak controls, in emerging economies, such as the Brazilian one, ownership concentration in the hands of the few prevails, and effective adoption of governance mechanisms is not robust, which causes constant conflicts between majority

shareholders and minority shareholders (MORCK et al., 2005).

The subject of corporate governance is a major focus of attention, and its relevance has been studied in the United States since the mid-1980s. These studies have become more prevalent in Brazil in the last 20 years. Fraud scandals involving senior US corporate executives in the 1980s provoked the reaction of institutional investors (largely pension fund investors), who were responsible for the largest volume of investments in many corporations. These Fraud Scandals caused these institutional investors and funds to pressure senior managers of companies to adopt better corporate governance practices (BRUÈRE; MENDES DA SILVA; SANTOS, 2007).

A major legislative and historical milestone relating to corporate fraud and governance practices occurred in 2002 when the United States Congress enacted the Sarbanes-Oxley Act (a reference to congressmen Paul Sarbanes and Michael Oxley), which also is known as the Corporate Fraud Act. This law was largely motivated by well-known cases of fraud drastically affecting the shareholders (investors) of Enron, and WorldCom. This fraud also led to the downfall of accounting firm Arthur Andersen. These seminal events led to the structural reforms in accounting and corporate governance standards, as not only reflected in Sarbanes-Oxley but also throughout the world (MATIAS, 2007).

In their studies, Shleifer and Vishny (1986) posit the idea that corporate governance has as essential objectives three things; to ensure the return of investments to investors, to improve the utilization of resources, and to increase the participation of institutional investors in corporations and firms. Lethbridge (1997) defined corporate governance as institutional mechanisms that govern the relationship between institutional (principal) investors and managers (agents).

Another definition regarding stronger corporate governance is that these policies and rules present a model that induces managers to make decisions based on maximizing the value of the company to institutional investors through a grouping of institutional and market-based mechanisms (DENIS; McCONNELL, 2003).

For Fontes Filho (2006), the institutional investor seeks to implement corporate governance practices to adopt a more active stance towards the companies that contribute these investments, with

the expectation that the executives, acting as agents, respond positively to the long-term objectives of the institutional investor.

Similarly, Punsuvo, Kayo, and Barros (2007) define corporate governance as a way to mitigate agency conflicts between the ownership and management of a company.

Bruère et al. (2007), in a study that dealt with aspects of corporate governance of companies listed on the Brazilian stock exchange, Bovespa, define corporate governance as relating to the relations between managers, boards of directors, shareholders, and other stakeholders. Matias (2007) conceptualizes corporate governance as an interconnected group of external and internal controls that balance agency conflicts. These internal and external controls also are a management mechanism, possibly increasing performance.

Corporate governance is comprised of a group of incentive and control mechanisms, both internal and external to the organization, aimed at assuring appropriate shareholder returns. (BACH; KUDLAWICZ; SILVA, 2015). These mechanisms reflect the interests of managers and shareholders (SILVEIRA, 2004). For Camilo et al. (2012), governance mechanisms are designed to avoid or

mitigate potential conflicts of interest and to ensure shareholders' protection.

Aguilera et al. (2015) emphasize that there are several studies about the internal mechanisms of corporate governance, but external mechanisms are understudied. For these authors, the internal mechanisms can be classified as relating to the boards of directors, ownership, and management incentives. Under the external view of corporate governance, there are six mechanisms: legal systems, corporate controls; markets; external audits; stakeholder activism, and the media.

Camilo (2011) presents the external and internal relations in which the mechanisms of control are highlighted within the scope of the firm (shown in Figure 1). The internal mechanisms are the property structure and the board of directors, and the external mechanisms consist of the market, the legal and regulatory system, and institutions.

The B3, Brasil Bolsa Balcao (formerly BM & F Bovespa, is the largest stock exchange in Brazil. The B3 defines corporate governance as a framework of incentives and control instruments to ensure that decision making has as a major goal the long-term objectives of the organizations (BM&F BOVESPA, 2016). Table 1 highlights the main corporate governance mechanisms recommended by BM&F BOVESPA.

Figure 1- Mechanisms

Source: Adapted from Camilo (2011).

Table 1 - Corporate governance mechanisms recommended by BM&F BOVESPA.

MECHANISMS OF CORPORATE GOVERNANCE	ESSENTIAL CHARACTERISTICS
<ul style="list-style-type: none"> • Administrative Council 	<ul style="list-style-type: none"> • Active and independent.
<ul style="list-style-type: none"> • Remuneration system for executives and employees 	<ul style="list-style-type: none"> • Aligned with the interests of the Company and its shareholders.
<ul style="list-style-type: none"> • Internal controls 	<ul style="list-style-type: none"> • Guarantee of procedures and practices in accordance with the Company's regulations and legal requirements.
<ul style="list-style-type: none"> • Practices 	<ul style="list-style-type: none"> • Transparency and systematic reporting of results to shareholders and other stakeholders.

Source: Adapted from BM & F BOVESPA (2016).

For IBGC (The Brazilian Institute of Corporate Governance), these mechanisms include ownership, the board of directors, management, independent audits, investment committees, fiscal councils, conduct, and conflicts of interest (MATIAS, 2007).

According to Bruère; Mendes da Silva; Santos (2007), one of the determining factors for success in corporate performance has been corporate governance. However, the authors make a particularly cautious reflection when discussing the propagation of corporate governance practices in business and academic scenarios, in two respects, the way corporate governance is formed and how activism occurs through the boards of directors in public companies. This caution stems from the inexpressive amount of empirical research that studies boards of directors in their composition and structure, despite the numerous studies already done on corporate governance.

2.3 Activism

Activism can be defined as a movement of direct interference in the management of executives, through corporate governance, in which the participation of shareholders in control makes possible a positive agenda focused on the defense of the interests of the owners of the company (GILLAN; STARKS, 2000).

For Crisóstomo and González (2006), this movement allows the determination of the interests of the (control) (control) property, disregarding the executives' yearnings and the consequent agency conflict.

2.3.1 Role of the Board of Directors

Capital markets stand out as one of the main players in an economy, and the board of directors of listed companies is becoming relevant for its decisive role in the management of these companies, essentially as an element of institutional investors' activism (JOHNSON; SCHNATTERLY; HILL, 2013).

It is hoped, therefore, that the board of directors monitors, decides, and advises managers and shareholders in the escalation of the value of the company's assets (ARANHA; ROSSONI; MENDES DA SILVA, 2016).

For Rossoni and Machado da Silva (2010), most of the regulatory content of good corporate governance practices is established to ensure that the board's performance is not figurative but, above all, effective. Table 2 presents information complementary to the previous one, from the authors' point of view.

The decisive and direct influence of the board of directors on the financial performance of companies is not conclusive; even with the premise of being true, this premise carries the lack of clarity to the pillars that support it (HE; HUANG, 2011; ROSSONI; MACHADO DA SILVA, 2010).

In the same vein, Aranha; Rossoni; Mendes da Silva (2016) presents, in one of his most recent studies, that corporate governance practices are the focus of attention, both in the business and academic context, and are considered as one of the essential elements to generate value to the company. Linked to this situation of the prominence of corporate governance practices, the boards of directors, regarding their composition and competence, are opportunities for various studies in Brazil and in the World. The authors investigated the cause-and-effect relationship between the board of directors and the performance of publicly traded companies and found that the

composition of boards of directors is at an early stage and that companies are moving towards adopting good practices of corporate governance, given the market's need to expand the professionalization of corporate management.

Given this scenario, it becomes relevant to the academic formation and executive experience in companies, appearing as a significant factor for the hiring of members of the board of directors. However, in the Brazilian market, the study referred to by the authors suggests that publicly-traded companies still do not have an in-depth knowledge of the competencies demanded by the candidate to be a member of a board of directors. (ARANHA, ROSSONI, MENDES DA SILVA, 2016).

2.3.2 Institutional Investors

Institutional investors are important in global macroeconomic development, and in this context, pension funds, investment funds, and foreign investors stand out as a major group of institutional investors.

These investors represent a group that holds the largest volume of capital resources in the world (MONKS; MINOW, 2004). As a result, the role of the institutional investor as a shareholder has evolved with increasing ownership in companies, from a passive shareholder position to an active participant in corporate governance (GILLAN; STARKS, 2000).

With greater participation in the control of companies, these investors provoke the creation of mechanisms that prevent or mitigate the conflict between shareholders (property) and managers (control), called the agency problem, leading to greater control over the managers of the companies, making managers change their behavior towards executing shareholder (BRUÈRE; MENDES DA SILVA; SANTOS, 2007).

As a large shareholder, the institutional investor creates a requirement for companies to adopt control and management practices that ensure adequate corporate governance conditions and ensure the generation of value in the long term (AMARAL et al., 2004; RABELO, 1998). Monks and Minow (2004) suggest that the understanding of the evolution of corporate governance depends on the performance of the institutional investor.

In Brazil and other emerging economies, the ownership pattern is concentrated; often, more than 50% of the capital is held by the controlling shareholder. In most cases, structured in the form of a pyramid, where cash flow rights are greater than property rights (YOUNG et al., 2008).

However, according to MacCahery, Sautner, Starks (2015), there is little knowledge about how institutional investors engage with the firms to which they contribute their resources since these interactions are not open. Unless institutional investors publicly express their decisions and deliberations on business activities and management, little is known about their preferences and private commitments to the companies they relate to.

2.3.3 Measuring Activism and Performance

The measures of activist effects of institutional investors go through the observance of the effective performance of the board of directors as one of the main forms of activism (ARANHA; ROSSONI; MENDES DA SILVA, 2016; ROSSONI; MACHADO DA SILVA, 2010).

The typification of these measures is related to the characteristics of the activities performed by the board of directors, focusing on the best performance, either in market value or in operational performance (GILLAN; STARKS, 2000).

For Bandeira-de-Melo and Marcon (2006), there is a lack of consensus regarding the objectives of the company that provokes the polarization of the debate about the measurement of performance under the strategy context. Two streams present themselves: those focused not only on shareholder goals but also on the objectives of other parties that relate to the company (stakeholders), and those focused exclusively on the interests of shareholders. These authors conclude that the definition of an adequate indicator to measure performance is not simple since the number of existing metrics is high: Tobin's Q, ROE, ROA, ROI, among other indicators.

In order to minimize the measurement error of the performance construct, according to Bandeira de Melo and Marcon (2006), the application of multiple indicators makes it possible to capture the influence of several agents on performance. Based on the use of metrics with different approaches, it is possible to analyze the

effect of specific agents on performance at the operational, financial, and market level.

To measure operating performance, ROE (Return to Shareholders) is a metric of shareholder return that describes the shareholder's profitability, discounting the opportunity cost, determined by the Ebitda (operating performance) ratio and the Net worth (CRISÓSTOMO; GONZALES, 2006; MENDES DA SILVA; MORAIS, 2006; MENDES DA SILVA; GRZYBOUSKI, 2006; OLIVEIRA, 2005).

For Crisóstomo and Gonzales (2006), Mendes da Silva and Morais (2006), Mendes da Silva and Grzybowski (2006), and Oliveira (2005), ROE measures shareholder profitability through the ratio between net income and shareholders' equity.

From the point of view of market value, Aranha; Rossoni; Mendes da Silva and Grisbouski (2006) and Carvalhal da Silva and Leal (2003) present the Q of Tobin that measures company value, based on the sum of the market value of the company's shares and its debts in relation to the book value of its assets.

Based on the above, the following hypotheses are formulated to be tested:

Hypothesis 1: Companies in which Institutional Investors adopt, through corporate governance, the strategy of activism:

Hypothesis 1a: significantly increase their return to shareholders.

Hypothesis 1b: significantly increase their market value.

Hypothesis 2: The corporate governance index interferes with the activism of institutional

investors, causing an effect on corporate performance.

3 Methods

3.1 Data and Model Specifications

The data set was obtained considering the period of 10 years, from 2006 to 2015, through two secondary sources: Economática® and BM&FBOVESPA base. Data from the BM&FBOVESPA source referring to the independent activism variable were collected based on the analysis of the annual minutes of the Board of Directors meetings of all listed companies. Data from the two performance-dependent variables (ROE and Market Value) and the control and moderator variables adopted were collected. Accordingly, 497 listed companies were classified per year, which generated 4,970 lines and 94,420 observations.

With the refinement of the data collection, the outliers and inconsistent data were excluded, 66,690 observations were generated for 351 listed companies considering the period of 10 years (totaling 3,510 lines). This group generated 19 columns containing the following data: company; year; ways to measure activism (8 types); sector of the economy; roe; market value, BM&FBOVESPA corporate governance index; the rate of inflation, GDP growth rate; Selic rate; exchange rate.

Regarding the sectors of the economy, it should be noted that the base used was Economática® with 18 sectors. Due to the size of the sample and the small number of companies in certain sectors, a reclassification was necessary for ten sectors, and the BM & FBOVESPA group was chosen. The variables modeled for the study are detailed in Table 3.

Table 3 - Variables

Variable Name	Meaning and Measurement	Code
ROE (Return to the shareholder)	Measures the shareholder's profitability through the ratio between net income and shareholders' equity.	ROE
Q from Tobin (Market value)	Measures company value based on the sum of the market value of the company's shares and its debts in relation to the book value of its asset.	MARKET
Activism of the Board of Directors measured by the analysis of the result of the voting	It measures activism by the Board of Directors in the management of companies.	a1
Activism of the Board of Directors measured by the analysis of real changes in the company's activities	It measures activism by the Board of Directors in the management of companies.	a2

Variable Name	Meaning and Measurement	Code
Activism of the Board of Directors measured by the analysis of changes in the value management of the business	It measures activism by the Board of Directors in the management of companies.	a3
Activism of the Board of Directors measured by the analysis of the short-term market reaction, the long-term stock market, and the operating performance	It measures activism by the Board of Directors in the management of companies.	a4
Activism of the Board of Directors measured by the analysis of the characteristics of the company associated with the segmentation and negotiated agreements	It measures activism by the Board of Directors in the management of companies.	a5
Activism of the Board of Directors measured by the analysis of the relationship between the shareholder proposal and the executive compensation structure	It measures activism by the Board of Directors in the management of companies.	a6
Activism of the Board of Directors measured by the analysis of changes in governance characteristics	It measures activism by the Board of Directors in the management of companies.	a7
Activism of the Board of Directors measured by the analysis of corporate reorganization events.	It measures activism by the Board of Directors in the management of companies.	a8
GDP growth rate	It indicates the variation of the GDP in percentage when compared to the previous period by means of the percentage of this variation.	PIB
Inflation Index	Indicates the price variation through the Consumer Price Index (CPI).	INFL
Selic Interest Rate	It indicates the basic interest rate in the market by means of its percentage.	SELIC
Exchange rate	Indicates the value of the national currency against the US currency by means of the dollar amount.	EXCHANGE
Sector of Economy	Economic sectors identified in Economatica®. Indicates the sector of the economy in which the company is located.	IND
Corporate Governance Index	<i>Dummy</i> that indicates whether the listing segment (corporate governance level BM&FBOVESPA) influences or modifies the relationship between activism and performance.	IG

Source: Prepared by the authors (2017).

An econometric technique of panel data was applied because it was characterized as longitudinal (GUJARATI, 2006). According to Alisson (2009), it is possible to apply strategies, because there are multiple observations of the same unit, to estimate the analysis. According to the author, this allows the control of certain unobserved characteristics and facilitates causal inferences.

In studying the activism of institutional investors in the environment of the listed companies, it was faced with its dynamic character, because as a function of time each variable can be changed. Another aspect that generates complexity is the fact that it is not possible to measure the high

number of relevant variables in the context researched.

Based on the presented characteristics, we chose Fixed Effects Models (FE), which allow the control of non-measured variables. To do this, each individual must provide data on at least two occasions and the predictive variables (activism) of interest must have their value altered in a significant portion of the sample. (Alison, 2009).

To analyze the data, we opted for an unobserved Effects Panel Data Model (EMU) model. For any remark, this model can be written as follows:

$$Y_{it} = \beta_0 + x_{it}\beta_i + \alpha_i + \varepsilon_{it} \quad \text{where } t = 1, 2, \dots, T$$

(Equation 1)

In this model, Y_{it} represents the performance-dependent variable i (ROE and Market Value) at time t ; β_0 is the intercept; x_{it} represents an array of independent variables (Activism type a1 through a8) and performance control in year t ; β_i represents the coefficient vector; α_i identifies the unobservable effect of performance i and ε_{it} it is defined as error/deviation.

The term α_i can be treated as Fixed Effect and other times as Random Effect. The difference lies in defining it as a parameter to be estimated or a random variable. According to Alisson (2009) there is no consensus in the literature on the ideal way to treat both effects. In practice, Random Effect models have potentially a greater number of independent variables, and the relevant difference is in the ability of these models to estimate the influence of predictors that do not vary with time. According to Xavier (2011), there is a tradeoff between the Fixed Effect and Random Effect models, in which the search for efficiency potentially generates a bias, and the reduction of bias leads to costs or loss of efficiency. In order to identify the most appropriate method in each situation, a test was developed by Hausman (1978) to verify the null hypothesis of equality between the coefficients generated by the Fixed Effect and

Random Effect models. With this, a significant Hausman test favors the use of the Fixed Effect model.

The Fixed-Effect and Random-Effect models and the Hausman test were estimated using the statistical package STATA® in version 13. As a way of ratifying statistical method choices and increasing robustness, and thus reducing errors in the interpretation of results, we chose to apply the robustness coefficient in STATA®, which estimates robust deviations from heteroscedasticity, one of the most common distributions violations (Alisson, 2009).

The presence of a moderating effect (Governance Index) was tested. According to Hair et al (2009), the variable that generates the moderating effect is called a moderator, which indicates a variable that influences or modifies the relationship between two other related variables. In the theoretical basis of this study, it is observed that corporate governance can present this moderating effect, so tests are performed considering this hypothesis.

The moderating effect was tested by the evaluation of the joint effect of the activism variable and the governance index variable, being compared to the direct effect exerted by the activism variable. The significance and intensity of the combined effect were verified in the FE and RE models proposed. Figure 2 illustrates the adopted model.

Figure 2 - Conceptual model

Source: Prepared by the authors (2017).

4 Results

4.1 Descriptive Statistics

Table 3 presents descriptive statistics of the 351 sample companies, year on year, related to the Market Value and ROE indicators (dependent variables).

The Market Value data presented a high standard deviation, indicating a significant dispersion (variance) of the set of values of this variable. This significant heterogeneity is observed in all years, except for the year of 2008 when its significance was in an order of magnitude, slightly more than 10 times smaller when compared to the other years. Also, in 2008 and 2014, the lowest averages of Market Value of the sample were observed. In fact, 2008 was a period of worldwide economic crisis that affected the performance of stock exchanges worldwide, including in Brazil, and in 2014 the data is indicative of the instability arising from the economic and political crisis in which the country plunged. The data also indicate

stability between the years 2011 and 2013, and with superior performance, when compared to the years before and after the sample. However, in 2015 there is a resumption of performance, but significantly below the years of economic stability.

The ROE variable showed greater dispersion in 2008, indicative of the low performance of companies listed as a function of the global crisis. It was observed that the performance of companies in the BM & FBOVESPA in the last five years shows a downward trend measured by ROE.

In addition to the performance variables (dependent), the control variables were included since these can generate influences on the dependent variables. Regarding the business environment, Table 5 establishes the variable Corporate Governance Index (GI). Because it is a categorical variable, the Economics Sector control variable was omitted from the descriptive statistics table of this variable category.

Table 5 - Corporate Governance Index (GI)

IG	Balcão Organizado	BDR Nível 3	Bovespa Mais	Bovespa Nível 2	Mais	Nível 1	Nível 2	Novo Mercado	Tradicional
Comments	300	50	110	20		280	190	1220	1340

Source: Research data (2017).

There were six Governance Indices of the segments listed on the BM&FBOVESPA, in addition to the Organized Counter and Level 3 BDR, with the Novo Mercado and Tradicional together accounting for 72.93% of the sample observations throughout the period. found that the Traditional index obtained the highest number of occurrences, slightly higher than the Novo Mercado index. This indicates a concentration in only 2 of the 8 segments observed, also indicating

that 25% of the sample indices represented almost 3/4 of the total observed.

Regarding the independent variable Activism, we obtained a number of observations equal to 12,338 for the group of 351 companies. The variable Activism a1 (activism of the Board of Directors measured by the analysis of the voting result) was the variable with the highest number of observations of the eight types considered in the study, as represented in Table 6.

Table 1 – Observations per activism type

Type of Activism	a1	a2	a3	a4	a5	a6	a7	a8
observations	2949	210	907	2197	1159	2751	1056	1109

Source: Research data (2017).

Table 7 presents the correlation matrix of the study variables at a significance of 5%, which was organized as follows: a) independent (ROE

and Market Value) and b) dependent (a1 to a8). The bold italics show the linear correlations between

moderate and strong, which refer to values between 0.4 and 1. No very strong correlations were found, since there are no values between 0.9 and 1. The

values underlining refer to negative linear correlations. The regressions had ROE and Market Value as dependent variables.

Table 2 – Correlation Matrix

	ROE	MARKET	a1	a2	a3	a4	a5	a6	a7	a8
ROE	1,0000									
MARKET	0,0351	1,0000								
a1	<u>-0,0423</u>	0,0119	1,0000							
a2	<u>-0,0112</u>	0,0955	0,0805	1,0000						
a3	-0,0020	0,0540	0,1402	0,2847	1,0000					
a4	<u>-0,0825</u>	0,0590	0,4373	0,1429	0,0663	1,0000				
a5	0,0243	0,0800	0,1922	0,3031	0,2581	0,1234	1,0000			
a6	0,0121	0,0198	0,6151	0,0771	0,1093	0,3863	0,1804	1,0000		
a7	0,0240	0,1159	0,2132	0,3296	0,2159	0,1900	0,6173	0,1816	1,0000	
a8	<u>-0,0003</u>	0,1143	0,2396	0,3092	0,1994	0,3025	0,4102	0,2037	0,5777	1,0000

Source: Research data (2017).

It can be observed in general lines, in the correlation matrix, a reduced positive and negative linear correlation between the derivations of the activism variable. It should be noted that there was a moderate to strong correlation between variables a1 - a4 (0.43); a1-a6 (0.61); a5-a7 (0.61); a5-a8 (0.41) and a7-a8 (0.57).

Regarding the correlations between the independent activism variable, including its derivations, and the dependent variables Market Value and ROE, it is observed that there is no correlation, that is, with no statistical significance.

4.2 Discussion

We chose to present the results of the regressions in two groups: group 1 regressions in which the dependent variable is ROE; and to the regressions of group 2 in which the dependent variable is the Market Value. In both cases, the regressions were tested using the Fixed Effect (FE) model and the Random Effect (RE) model.

In order to identify which model is most suitable, in which according to Alisson (2009) the ER regression cannot be used when the EF and RE coefficients are significantly different, the Hausman test was used to identify the relationship between these coefficients.

Inflation and GDP control variables, due to the strong correlation, were not applied in the same regression. The same procedure was adopted for the exchange and Selic control variables, because of the same justification. The consequence of this

was that a4 becomes very significant with any of the four control combinations: Inflation and Selic; Inflation and Foreign Exchange; GDP and Selic; GDP and Foreign Exchange.

For the regressions of group 1 (ROE as the dependent variable) the results of the FE model are presented in Appendices A through D, and summarized in Appendix E. We note that the model can be tested and that independent variable a4 is very significant and a1 is significant. The other derivations of the activism variable are not significant when correlated to the variable dependent on ROE performance.

Hypothesis 1 (a) establishes a negative and very significant relationship between the ROE-dependent variable and the independent activism variable, in its derivation a4 (activism of the Board of Directors as measured by the analysis of the short-term market reaction, long-term actions, and operational performance). For a4, the coefficient is -9.6 (dummy 0 or 1) of the dependent variable ROE (%). This result estimates that a company adopting a4 has its ROE decreased by 9.6%.

Also, in hypothesis 1 (a), it was observed that the independent activism variable a1 establishes a negative and significant relation between the ROE-dependent variable and the independent activism variable in its derivation a1 (activism of the Board of Directors measured by the analysis of the result of the voting). For a1, the coefficient is -8.7 (dummy 0 or 1) of the dependent variable ROE (%). This result estimates that a

company adopting A1 has its ROE decreased by 8.7%.

Regarding the other derivations of the independent activism variable, it was not possible to confirm the relationship between it and the dependent variable ROE since the test results were not statistically significant. The control variables applied to the Selic, Inflation, GDP, and Exchange model did not present statistical significance when correlated to ROE.

For the regressions of group 2, the results were inconclusive, in which the model was tested with the dependent variable Market Value and the independent variable activism, and its derivations.

Regarding the other derivations of the independent variable activism, it was not possible to confirm the relation between it and the market value dependent variable since the results of the tests were not statistically significant. The control variables applied to the Selic, Inflation, GDP, and Exchange model did not present statistical significance when correlated to Market Value.

In order to test the moderating effect of IG (BM&FBOVESPA Corporate Governance Index of the segments listed) in the relation between activism and performance, the trad variable was created, in which $\text{trad} = 1$ is a new market and $\text{trad} = 0$ if traditional. It was considered the new GI market by representing together with the traditional IG almost 75% of the companies listed in the BM&FBOVESPA segment of governance. The others for the low participation were despised.

It can be observed that it was possible to test the moderating effect, in which the interaction between GI and Activism is identified. Thus, it was possible to test hypothesis 2 and note that companies that adopt the traditional GI, in which governance rules are less rigid, activism interferes with ROE performance, which signals an inversely proportional relationship between the moderator variable and independent variable. It can be assumed that, insofar as the GI rules are less rigid, institutional investors are able to adopt activism, and this interferes with corporate ROE.

The test result with the moderator variable showed that a1 interferes in ROE negatively and significantly since it has a coefficient equal to -12. This result estimates that a company adopting a1 has its ROE decreased by 12%.

When submitted to the moderator variable trad 1 (traditional GI) and the verification of IG interference in a1 activism ($a1 * \text{trad}1$), the result

is +16. This result estimates that the traditional IG ($\text{trad}1$) interferes positively and significantly, in that a company that adopts a1 activism has its ROE increased by 4% ($-12\% + 16\% = 4\%$). The FE test results of the moderating effect are summarized in Appendix E.

When analyzed a4 activism, which resulted in negative and significant, with the coefficient -11, not being observed a difference between the traditional GI and the other segments of governance, indicating that in companies in which are adopted indices of more rigid governance activism a4 adopted by the institutional investor does not interfere with performance.

Due to the test result related to the Market Value variable, it was not possible to test the conceptual model. With this, the relationship between the governance index and activism and the impact on performance was observed.

As a way to start the discussion of the results, it is observed that on the theoretical basis, no studies on activism were applied to the companies listed on the BM&FBOVESPA, in which the research aimed at the causal relationship between activism, corporate governance, and company performance. From this finding it was not possible to make a direct comparative discussion of the findings, since there is no similarity of the objectives of the studies found in the academy.

The results obtained from the hypotheses tested allow us to infer that at levels of corporate governance with less stringent rules, such as the traditional BM&FBOVESPA segment, there is an indication that shareholder interference in management tends to be more permissive when compared to corporate governance more regulated, such as the new market index (BM&FBOVESPA, 2017).

The conceptual model tested, presented in Figure 2, showed that in the traditional level of corporate governance activism positively interferes in the company's performance in terms of ROE, indicating that this interference increases by 4% the result measured by this indicator. For the other performance variable (market value), this relationship was not significant.

When we look at the new market index, the most rigorous in terms of corporate governance rules on BM&FBOVESPA, the findings indicate that activism and the influence of corporate governance at this level of rigor do not interfere with performance. This allows us to infer that the

shareholder does not have the same permissiveness to interfere in the control of the company and, from the perspective of the causal relation, cannot act in a way to improve the performance.

Punsuvo, Kayo, and Barros (2007) found in their study that part of the literature states that pension fund activism could lead companies to improve their governance mechanisms. The authors argue against suggesting that in a market, such as Brazil, where shareholding is concentrated, it would be reasonable to assume that quality corporate governance can be replaced by a larger shareholding.

The positioning of Punsuvo, Kayo, and Barros (2007), when compared to the findings of this study, partially corroborates that for less rigid levels of governance, activism is significant and increases performance. What can signal to the shareholder with greater participation, from the logic of cause and effect, that the adoption of activism under the traditional (less regulated) level of governance would lead the company to perform better.

In the recent study by Aranha, Rossoni, and Mendes da Silva (2016), the authors demonstrated that the greater the board's capital, the greater the company's value maximization. It is reasonable to infer that the representatives of the shareholders in the board, by the concentration of the shareholding, can act more intensively in the management if the level of governance allows. This hypothesis can create a connection between the studies discussed here, suggesting that even in the light of different research objectives, one can broaden the reflection between the relations between activism and the moderating effect of corporate governance and the influence of both on corporate performance.

5 Conclusions

Despite the prominence of activism by institutional investors in recent years, the role of these investors as shareholders has evolved with increasing ownership in companies. When it comes to empirical studies in the investigation of the effects of this activism, its presence in the academy is still limited.

There is little empirical evidence that after activism, long-term performance increases either in the stock market or in operational performance, in addition to the difficulty of demonstrating the

cause and effect relationship between activism and performance.

The present study analyzed the effect of institutional investors' activism on performance through their performance on the board of directors. As a result of this stage, the importance of institutional investors in capital markets and in the global and Brazilian economy was noted, as well as their increased participation in the control of the companies in which they are shareholders. The presence of corporate governance with its control mechanisms (internal and external), which is identified as an important evaluation factor in BM&FBOVESPA, has on the board of directors the main instrument for institutional investors to carry out the activism.

No empirical evidence was obtained, based on the statistical tests, that allowed the assertion that activism of institutional investors has an effect on the performance of firms in order to increase it significantly. It was observed, however, that the types of activations a4 and a1 indicate a negative and significant influence on the performance of the ROE indicator, reducing it, respectively, by 9% and 8%. Hence, it can be inferred that the results indicate that there is no influence of the activism in the increase of performance, and in the cases where there was a correlation, and it was possible to estimate, there is an occurrence of adverse effect on ROE and inconclusive on the Market Value.

Another result was observed when the moderator variable IG governance index was introduced, in which it was possible to validate hypothesis 2 (the governance index interferes with the activism of institutional investors, causing an effect on the companies' performance). In this case, it can be inferred that the institutional investor, when adopting the a1 activism strategy, in companies where the traditional governance index is chosen, where the rules are less rigid, such an investor is able to influence the ROE variable positively and significantly, increasing the performance of companies.

For the other types of activism, no difference was observed between the traditional GI and the other governance segments, indicating that in companies that adopt more rigid governance indices such as new market GI, the activism adopted by the institutional investor does not interfere in performance.

It can be concluded that companies that have more stringent corporate governance

standards, the interference of the institutional investor, through the board of directors, do not influence performance. Another conclusive aspect is that in these companies, there are legal barriers and more austere control mechanisms that mitigate shareholder interference in the management of the company in which they intend to impose their interests.

Comparatively, in companies that adopt less rigorous standards of governance, this interference is more permissive, precisely because of the absence of austere control mechanisms, allowing the shareholder to interfere in the management of the company, in the pursuit of its interests, adopting the strategy of activism to impose such interests.

Future studies may explore the participation of the board of directors as a mechanism for adopting activism, which suggests, in addition to the activism data collections in the BM&FBOVESPA documents, interviews with institutional investors and/or their representatives on the board to identify under the shareholder's perspective which actions are executed, and which can be typified as activism, and the results achieved from the adoption of this strategy over time.

It is suggested that new explanatory variables be added to the study, such as the possible activism not explained in the official publications of the companies, in an attempt to improve the explanatory power of the model. Future work may seek further detail on how activism occurs and isolate effects in more specific dimensions. Another suggestion is to present the results obtained in this study to the institutional investors of the sample companies to identify and analyze their perception of the results.

From the result of the influence of activism on performance when the company adopts the traditional GI, a study is suggested in which the sample considers only this group of companies. The objective would be to identify how the composition of the board of directors and the ownership structure of these companies are, to identify aspects of corporate governance in their internal mechanisms and forms of activism.

The introduction of other moderating variables, which suggests the size of the company and the origin of capital, may lead to other findings that make it possible to better understand the relationship between activism and performance.

Finally, a replication of the study in order to obtain a broader panel, which offers greater clarity of the activism practiced, its relationship with the governance, and the effects of this relationship with the performance and other dimensions of the company.

One of the main limitations of research is the collection of data. The sample composed of the companies listed on the BM&FBOVESPA is small compared to the universe in which institutional investors operate. This may mask important data that could provide smaller dispersions in the study. Another aspect related to data collection is the identification of the forms and types of activism adopted. In spite of the obligation to publish and make available the information of the companies in the BM&FBOVESPA portal, there is still a bias in the clarity and interpretation of the data in relation to the concepts established on the theoretical basis.

The low presence of studies on activism in the Brazilian academy reduces the possibility of comparative analysis and the understanding of the constructs about activism and its causal relations.

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APPENDIX A

Modelo (FE) 1 - Efeito moderador de IG (Índice de Governança BM&FBOVESPA dos segmentos listados) na relação do ativismo com o desempenho, considerando Inflação e Selic.

```
Fixed-effects (within) regression      Number of obs   =      2889
Group variable: id                    Number of groups =      336
R-sq:  within = 0.0182                 Obs per group:  min =       1
      between = 0.0013                      avg =      8.6
      overall  = 0.0006                      max =     10
                                          F(12,2541)      =      3.92
corr(u_i, Xb) = -0.3046                 Prob > F         =     0.0000
```

roe	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
a1	-12.2023	4.274705	-2.85	0.004	-20.58456	-3.820041
a2	-.1805587	3.898491	-0.05	0.963	-7.825101	7.463984
a3	-.1935325	2.237245	-0.09	0.931	-4.580543	4.193478
a4	-11.46434	2.699788	-4.25	0.000	-16.75835	-6.170331
a5	2.100144	2.386427	0.88	0.379	-2.579396	6.779684
a6	5.806988	3.040981	1.91	0.056	-.1560666	11.77004
a7	1.765018	2.664084	0.66	0.508	-3.458979	6.989015
a8	-1.32958	2.345226	-0.57	0.571	-5.92833	3.26917
ind	0	(omitted)				
infl	-.2718743	.4645255	-0.59	0.558	-1.182761	.6390129
trad	0	(omitted)				
selic	-.4021171	.4119089	-0.98	0.329	-1.209828	.4055943
_Itrad_l	0	(omitted)				
al	0	(omitted)				
_ItraXal_l	16.63498	8.165138	2.04	0.042	.6239811	32.64599
_Itrad_l	0	(omitted)				
a4	0	(omitted)				
_ItraXa4_l	4.906372	4.019713	1.22	0.222	-2.975876	12.78862
_cons	21.52905	5.976054	3.60	0.000	9.810616	33.24748

sigma_u	39.588676					
sigma_e	44.684335					
rho	.43975418	(fraction of variance due to u_i)				

F test that all u_i=0: F(335, 2541) = 3.78 Prob > F = 0.0000
 Fonte: Dados da pesquisa (2017).

APPENDIX B

Modelo (FE) 1 - Efeito moderador de IG (Índice de Governança BM&FBOVESPA dos segmentos listados) na relação do ativismo com o desempenho, considerando Inflação e Câmbio.

```
Fixed-effects (within) regression      Number of obs   =      2889
Group variable: id                    Number of groups =      336
R-sq:  within = 0.0180                Obs per group:  min =       1
      between = 0.0012                      avg =      8.6
      overall  = 0.0006                      max =     10
                                         F(12,2541)      =      3.88
                                         Prob > F        =     0.0000
```

roes	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
a1	-12.2677	4.276078	-2.87	0.004	-20.65265	-3.882746
a2	-.2475704	3.898073	-0.06	0.949	-7.891294	7.396153
a3	-.173119	2.238181	-0.08	0.938	-4.561965	4.215727
a4	-11.519	2.699134	-4.27	0.000	-16.81172	-6.226271
a5	2.147095	2.387137	0.90	0.369	-2.533838	6.828027
a6	5.871782	3.039931	1.93	0.054	-.0892122	11.83278
a7	1.750885	2.664252	0.66	0.511	-3.473442	6.975211
a8	-1.335837	2.345633	-0.57	0.569	-5.935383	3.263709
ind	0	(omitted)				
infl	.0408605	.779894	0.05	0.958	-1.488432	1.570153
cambio	-1.656533	2.368773	-0.70	0.484	-6.301455	2.98839
_Itrad_l	0	(omitted)				
_a1	0	(omitted)				
_ItraXal_l	16.86369	8.164543	2.07	0.039	.8538531	32.87352
_Itrad_l	0	(omitted)				
_a4	0	(omitted)				
_ItraXa4_l	5.033857	4.016156	1.25	0.210	-2.841415	12.90913
_cons	18.79075	4.755746	3.95	0.000	9.465213	28.11628
sigma_u	39.615452					
sigma_e	44.688413					
rho	.44004239	(fraction of variance due to u_i)				

F test that all u_i=0: F(335, 2541) = 3.77 Prob > F = 0.0000

Fonte: Dados da pesquisa (2017).

APPENDIX C

Modelo (FE) 1 - Efeito moderador de IG (Índice de Governança BM&FBOVESPA dos segmentos listados) na relação do ativismo com o desempenho, considerando PIB e Selic.

```
Fixed-effects (within) regression
Group variable: id
R-sq:  within = 0.0182
      between = 0.0012
      overall = 0.0007

Number of obs   =    2889
Number of groups =    336
Obs per group: min =     1
                  avg =    8.6
                  max =    10
F(12,2541)      =    3.93
Prob > F        =    0.0000

corr(u_i, Xb) = -0.3057
```

roe	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
a1	-12.29401	4.2751	-2.88	0.004	-20.67705	-3.910979
a2	-.1958678	3.898524	-0.05	0.960	-7.840476	7.448741
a3	-.1663981	2.237701	-0.07	0.941	-4.554301	4.221504
a4	-11.46876	2.699425	-4.25	0.000	-16.76206	-6.175464
a5	2.148902	2.386557	0.90	0.368	-2.530893	6.828697
a6	5.808422	3.040064	1.91	0.056	-.1528331	11.76968
a7	1.760233	2.664	0.66	0.509	-3.463599	6.984066
a8	-1.349055	2.345308	-0.58	0.565	-5.947964	3.249854
ind	0	(omitted)				
pib	.1899577	.2644286	0.72	0.473	-.3285597	.7084751
selic	-.4602546	.393417	-1.17	0.242	-1.231705	.3111961
_Itrad_l	0	(omitted)				
_al	0	(omitted)				
_ItraXal_l	16.77076	8.166727	2.05	0.040	.7566368	32.78487
_Itrad_l	0	(omitted)				
_a4	0	(omitted)				
_ItraXa4_l	4.883056	4.016208	1.22	0.224	-2.992317	12.75843
_cons	20.08484	5.941687	3.38	0.001	8.433801	31.73589
sigma_u	39.588676					
sigma_e	44.682809					
rho	.43977101	(fraction of variance due to u_i)				

F test that all u_i=0: F(335, 2541) = 3.78 Prob > F = 0.0000

Fonte: Dados da pesquisa (2017).

APPENDIX D

Modelo (FE) 1 - Efeito moderador de IG (Índice de Governança BM&FBOVESPA dos segmentos listados) na relação do ativismo com o desempenho, considerando PIB e Câmbio.

Fixed-effects (within) regression	Number of obs	=	2889
Group variable: id	Number of groups	=	336
R-sq: within = 0.0180	Obs per group: min	=	1
between = 0.0012	avg	=	8.6
overall = 0.0006	max	=	10
	F(12,2541)	=	3.88
corr(u_i, Xb) = -0.3088	Prob > F	=	0.0000

roe	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
a1	-12.24673	4.276404	-2.86	0.004	-20.63233	-3.861141
a2	-.239785	3.898615	-0.06	0.951	-7.884572	7.405002
a3	-.1772297	2.237942	-0.08	0.937	-4.565606	4.211146
a4	-11.51369	2.699287	-4.27	0.000	-16.80672	-6.220664
a5	2.135586	2.387218	0.89	0.371	-2.545505	6.816677
a6	5.864893	3.039729	1.93	0.054	-.0957055	11.82549
a7	1.753583	2.664341	0.66	0.510	-3.470918	6.978084
a8	-1.332677	2.345529	-0.57	0.570	-5.932021	3.266667
ind	0	(omitted)				
pib	-.051298	.3978444	-0.13	0.897	-.8314303	.7288343
cambio	-1.749908	2.027469	-0.86	0.388	-5.725569	2.225752
_Itrad_l	0	(omitted)				
_al	0	(omitted)				
_ItraXal_l	16.82423	8.167896	2.06	0.040	.80782	32.84064
_Itrad_l	0	(omitted)				
_a4	0	(omitted)				
_ItraXa4_l	5.02728	4.013933	1.25	0.211	-2.843634	12.89819
_cons	19.38468	6.593062	2.94	0.003	6.456354	32.313
sigma_u	39.615712					
sigma_e	44.688291					
rho	.44004697	(fraction of variance due to u_i)				

F test that all u_i=0: F(335, 2541) = 3.77 Prob > F = 0.0000
 Fonte: Dados da pesquisa (2017).

APPENDIX E

Modelo (FE) 1 - Efeito moderador de IG (Índice de Governança BM&FBOVESPA dos segmentos listados) na relação do ativismo com o desempenho – Verificação de Significância.

Variable	feROEm1	feROEm2	feROEm3	feROEm4
a1	-12.202303**	(omitted)	(omitted)	(omitted)
a2	-.18055871	-.24757037	-.19586785	-.23978498
a3	-.19353249	-.17311898	-.16639812	-.17722965
a4	-11.46434***	(omitted)	(omitted)	(omitted)
a5	2.1001444	2.1470948	2.148902	2.1355857
a6	5.8069877*	5.8717818*	5.8084222*	5.8648934*
a7	1.7650179	1.7508846	1.7602332	1.7535829
a8	-1.3295801	-1.335837	-1.3490554	-1.3326771
ind	(omitted)	(omitted)	(omitted)	(omitted)
infl	-.27187431	.04086051		
trad	(omitted)			
selic	-.40211705		-.46025455	
_Itrad_l	(omitted)	(omitted)	(omitted)	(omitted)
a1	(omitted)			
_ItraXa1_l	16.634984*	16.863689*	16.770756*	16.824232*
_Itrad_l	(omitted)			
a4	(omitted)			
_ItraXa4_l	4.9063716	5.0338569	4.8830565	5.0272798
cambio		-1.6565328		-1.7499084
pib			.18995771	-.05129799
_cons	21.529049***	18.790747***	20.084843***	19.384675**
N	2889	2889	2889	2889
N_g	336	336	336	336
sigma_u	39.588676	39.615452	39.588676	39.615712
sigma_e	44.684335	44.688413	44.682809	44.688291
rho	.43975418	.44004239	.43977101	.44004697

legend: * p<.1; ** p<.01; *** p<.001

Fonte: Dados da pesquisa (2017)

APPENDIX F

Data collection Explanation of activism categories

VARIABLE	CODE	EXPLANATORY NOTE *
Activism of the Board of Directors measured by the analysis of the voting result	a1	Analyses that have left criticism and positions postponed by members of the board of directors. EX: analysis of the vote to choose the chief executive and the implications for the minority shareholders.
Activism of the Board of Directors measured by the analysis of real changes in the company's activities	a2	Analysis of real facts recorded that configured changes in company activities. Ex: analysis of the decision to close an operational unit
Activism of the Board of Directors measured by the analysis of changes in the management of business value	a3	Analysis of real facts recorded that configured changes in the company value management. Ex: analyzes the merger / acquisition of the company to increase its market articulation
Activism of the Board of Directors measured by the analysis of the reaction of the short-term market, the long-term stock market and the operational performance	a4	Analysis of short, medium and long-term performance. Ex: Critical and comparative analysis of the operational performance and market value of the company.
Activism of the Board of Directors measured by the analysis of the characteristics of the company associated with segmentation and negotiated agreements	a5	Analysis of agreements negotiated by executives. Ex: analysis of agreements negotiated with companies to pay royalties.
Activism of the Board of Directors measured by the analysis of the relationship between the shareholders' proposal and the executive compensation structure	a6	Analysis of the bonuses for executives against the performance of the company. Ex: analysis of the return of executives' remuneration (control) in relation to company performance.
Activism of the Board of Directors measured by the analysis of the changes in the characteristics of governance	a7	Analysis of the level of corporate governance adopted. Ex: analysis of the segment of the traditional governance index segment for level 1.
Activism of the Board of Directors measured by the analysis of corporate reorganization events	a8	Analysis of corporate reorganization. Ex: analysis of the substitution of the executive board and president of the board.

Note: * The codification of the occurrence of activism in the minutes was binary (dummy) and not categorical.

Source: Prepared by the author (2017).