
DOES THE PAYMENT OF DIVIDENDS REFLECT THE QUALITY OF PROFITS? EMPIRICAL EVIDENCE FROM BRAZILIAN PUBLIC COMPANIES

Flávia Ferreira Marques Bernardino ¹

Marcelo Tavares ²

Pablo Rogers ³

Patrícia de Souza Costa ⁴

▪ Received: 05/09/2022 ▪ Approved: 08/31/2023 ▪▪ Second Approved Version: 12/20/2023

ABSTRACT

Using panel data analysis (fixed and random effects) as an econometric technique, this study examines the relationship between dividend disbursements and the caliber of earnings of Brazilian public businesses from 2010 to 2019. The modified Jones (1991) model and data from discretionary accruals were used to analyze the quality of accruals, the persistence of earnings, and the informative value of earnings using the earnings response coefficient. Tests of dividend yield and the act of paying out dividends beyond the required minimum in each model were used to assess dividends. The empirical results of the three models that were used indicate that, in the Brazilian market, dividend disbursements do not always imply a greater quality of earnings, in contrast to findings in more developed markets. These results support the idea that the relationship between dividend payments and the caliber of reported earnings might be influenced by Brazil's distinct institutional context, which includes its particular dividend laws.

Keywords: Dividends. Discretionary Accruals. Earnings Management. Earnings Quality.

¹ Doutora em Ciências Contábeis pela FACIC/UFU, professora no Instituto Federal do Triângulo Mineiro Campus Uberlândia Centro. Endereço: Rua Blanche Galassi nº 150 – Altamira, CEP: 38.411-104, Uberlândia/MG. Telefone: (34) 3221-4800. E-mail: flaviamarques@iftm.edu.br. ORCID <https://orcid.org/0000-0003-3257-0035>

² Doutor em Agronomia pela Escola Superior de Agricultura Luiz de Queiroz, professor na Faculdade de Matemática (FAMAT) da Universidade Federal de Uberlândia. Endereço: Avenida João Naves de Ávila nº 2121 – Santa Mônica, CEP: 38.400-902, Uberlândia/MG. E-mail: mtavares@ufu.br. Telefone: (34) 3239-4360. <https://orcid.org/0000-0003-3008-3460>

³ Doutor em Administração pela Faculdade de Economia e Administração da Universidade de São Paulo (FEA/USP), professor da área de finanças e econometria da Faculdade de Gestão e Negócios (FAGEN) da Universidade Federal de Uberlândia. Endereço: Avenida João Naves de Ávila nº 2121 – Santa Monica, CEP: 38.408-100, Uberlândia/MG. E-mail: pablorogers@ufu.br. Telefone: (34) 3230-9473. <https://orcid.org/0000-0002-0093-3834>

⁴ Doutora em Ciências pela Universidade de São Paulo (USP), professora da Faculdade de Ciências Contábeis (FACIC) da Universidade Federal de Uberlândia. Endereço: Avenida João Naves de Ávila nº 2121 – Santa Mônica, CEP: 38.400-902, Uberlândia/MG. E-mail: patricia.costa@ufu.br. Telefone: (34) 3230-9474. <https://orcid.org/0000-0001-5087-1419>

O PAGAMENTO DE DIVIDENDOS REFLETE A QUALIDADE DOS LUCROS? EVIDÊNCIAS EMPÍRICAS DAS COMPANHIAS ABERTAS BRASILEIRAS

RESUMO

Utilizando dados em painel (efeitos fixos e aleatórios), o presente estudo examina a associação entre os pagamentos de dividendos e a qualidade dos lucros das companhias abertas brasileiras no período de 2010 a 2019. Para capturar essa qualidade, foram considerados a persistência dos ganhos, o conteúdo informacional dos lucros por meio do coeficiente de resposta aos lucros e a qualidade dos accruals, utilizando a informação dos accruals discricionários e o modelo modificado de Jones (1991). Quanto aos dividendos, optou-se por testar, em cada modelo, o dividendo yield e o fato de se pagar dividendos acima do mínimo obrigatório. Diferentemente dos achados em mercados mais desenvolvidos, os resultados empíricos dos três modelos aplicados sugerem que, no mercado brasileiro, o pagamento de dividendos não indica necessariamente maior qualidade dos lucros. Esses resultados reforçam o entendimento de que o ambiente institucional brasileiro, com sua legislação específica sobre dividendos, pode afetar a relação entre o pagamento de dividendos e a qualidade dos lucros reportados.

Palavras-Chave: Accruals Discricionários. Dividendos. Gerenciamento de Resultados. Qualidade dos Lucros.

1 INTRODUCTION

Profits are significant when making investment decisions since they often serve as a gauge of an organization's performance and ability to produce future results and cash flows. But they're not the only parameters that are employed. Investors find dividend payouts appealing as well since they anticipate development and exceptional returns. The informational content of dividends theory states that managers' choices regarding dividend payments inform the market about the cash flows and potential future performance of the companies (Modigliani & Miller, 1959; Miller & Modigliani, 1961; Watts, 1973; Bhattacharya, 1979; Miller & Rock, 1985; Nguyen & Bui, 2019).

Regarding the relationship between dividends and future earnings, the question of whether changes in dividend distribution policy are accompanied by changes in profits and stock prices in the same direction has persisted. Many studies have attempted to establish a connection between dividend payments and reported earnings quality (Caskey & Hanlon, 2005; Tong & Miao, 2011; Skiner & Soltes, 2011; Liu & Espahbodi, 2014; Deng, Li, & Liao, 2017). This is because reported earnings quality is a useful tool for evaluating companies and a suitable indicator of future operational performance (Dechow & Schrand, 2004).

The findings of these studies are mixed, if not contradictory, depending on the setting and the proxies used to measure earnings quality. Hanlon, Myers, and

Shevlin (2007), Skinner and Soltes (2011), Tong and Miao (2011), and Caskey and Halon (2013), for instance, suggest that companies that pay dividends have greater earnings quality than non-payers using samples of organizations from industrialized nations. Consistent with our findings, Liu and Espahbodi (2014) noted that dividend-paying companies smooth their income more than non-paying companies do, either by accrual choices or real activities.

Nonetheless, studies have out in developing nations have produced erratic and occasionally contradictory findings. Between 2000 and 2016, Martins, Sousa, and Girão (2022) examined the connection between continuing to pay dividends and managing earnings in 20 emerging market nations. The findings suggest that businesses with higher dividend payout ratios also have lower levels of earnings management. In contrast, Hussain and Akbar (2022) discovered that businesses that pay out less in dividends have better earnings management when they examined a sample of Chinese enterprises.

According to Deng et al. (2017), in the Chinese market, dividend payments are linked to stronger accruals quality, more sustained earnings, and more earnings informativeness. On the other hand, Mousa and Desoky (2019) discovered no correlation between dividend disbursements and the caliber of earnings in Egyptian corporations. According to Nguyen and Bui (2019), Vietnamese listed firms with dividend payers have higher-quality earnings than those without. In particular, Rodrigues Sobrinho, Rodrigues, and Sarlo Neto (2014) found that there is no correlation between dividend payments and the quality of accounting profit, nor do dividend-paying companies show lower levels of earnings management.

The different results can be assessed according to the legal systems of the nations under investigation. Strong protection for minority owners, a high degree of control, and reliable and helpful information are all present in a common law system like the American market (Nobes, 1998). (La Porta, Lopez-De-Silanes, Shleifer, & Vishny, 2000). The primary goal of information provision in a code law environment, like the Brazilian capital market, is to appease creditors and tax authorities due to the lack of strong legal protection and corporate governance (Lopes, Walker & Silva, 2016). As a result, it can be influenced by the many institutional features of each nation, including taxation and law (Vancin & Procianny, 2016).

From this angle, it makes sense for businesses in developing countries to communicate the quality of their governance through alternative signals of legitimacy. Dividend distributions, in the opinion of Sawicki (2009), might take the place of governance measures or even be a sign of the caliber of accounting profit. But one should use caution when interpreting this statement. This is demonstrated by the most recent instance of fraud involving Lojas Americanas, which filed for judicial recovery at the start of 2023 despite a track record of increasing dividend payments. The aforementioned company paid out more than twice as much dividends as its rivals throughout the preceding ten years. In the first three quarters of 2022 alone, it paid out over R\$333 million in dividends (INFOMONEY, 2023).

Considering the aforementioned, the goal of the current study is to ascertain if dividend payments provide insight into the caliber of earnings within the context

of the Brazilian stock market. Using panel data analysis with fixed and random variables, two hypotheses are examined from 2010 to 2019: whether companies that pay dividends beyond the mandatory minimum have higher quality earnings, and whether dividend-paying enterprises have higher quality profits than non-dividend payers.

The aim is to improve upon the work of Deng et al. (2017) and Rodrigues Sobrinho et al. (2014) by measuring the quality of earnings using three proxies: earnings response coefficient, aberrant accruals, and earnings persistence. The dividend distribution policy will be displayed via the dividend yield.

In a study done in Brazil, Rodrigues Sobrinho et al. (2014) merely employed earnings management as a stand-in for earnings quality. It is suggested that evaluating many earnings characteristics, as demonstrated by Deng et al. (2017) and Tong and Miao (2011), enhances the findings and increases the body of empirical research supporting the topic. Additionally, it is crucial to examine this relationship in the Brazilian context because dividend distribution policy has unique characteristics. For example, the second research hypothesis notes that the national legal system (code law) influences corporations' cash flow distribution strategy by imposing a minimum legal dividend.

There aren't many research on the topic in developing countries, thus this one is necessary. He, Ng, Zaiats, and Zhang (2017) suggest that countries with inadequate policies to protect minority investors may have a greater correlation between dividend policy and profits management. This is due to the possibility that these organizations have a stronger need to communicate the quality of their governance through differentiating signals of legitimacy. Therefore, it is crucial to assess whether dividends may be used as a gauge of the quality of profits in Brazil, contributing to the body of information on the subject.

The results of this study indicate that dividend payments do not indicate higher-quality profitability. This incentivizes the fundamentalist investor to expand the scope of their investigation to encompass supplementary elements, such the ability of their cash flow to sustain those rewards in the long run. Moreover, this relationship is believed to change if management paid dividends only to satisfy the stock market's need for accurate information.

The following part contains a description of the research hypothesis and literature review. The third section discusses the methodological approaches. The fourth section discusses the study's findings. The last section contains illustrations of the research's closing observations.

2 LITERATURE REVIEW AND RESEARCH HYPOTHESES

2.1 Dividend Distribution Policy

One of the most important components of a company's financial plan is dividend payments. A number of factors, including available cash flow (Alli, Khan, & Ramirez, 1993; Brav, Graham, Harvey, & Michaely, 2005; Papadopoulos & Charalambidis, 2007; Chay & Suh, 2009), growth prospects (Fama & French, 2001, Denis & Osobov, 2008), debt levels, and profitability (Fernandez, 1988; Nielke, 1994;

Naceur, Goaid, & Belanes, 2006) all have an impact on the dividend distribution policy, which sets the amount to be paid.

A company's dividend policy influences the quantities to be held in cash in addition to reflecting the decision on the amounts to be distributed, making it a strategic choice (Procianoy & Poll, 1993; Vieira, 2001; Brav et al. 2005; Chay & Suh, 2009). Generally speaking, managers like to keep a consistent dividend flow throughout time and are hesitant to raise it unless they think the payouts can be sustained at the suggested new level (Lintner, 1956).

In an effort to explain dividend policy, a number of theories have been proposed. The "bird in the hand" theory (Lintner, 1956, 1962; Gordon, 1959) suggested that the value of a share is influenced by expectations of future dividend payments and that shareholders prefer to receive dividends now, even at the expense of potential future capital gains. This theory highlights the relevance of dividends. The theory of dividend irrelevance (Miller & Modigliani, 1961) presents counterarguments and contends that a company's worth is established by the profits generated by its assets, independent of the allocation of these profits between retained earnings and dividends. These theories were, however, created with the assumption of ideal markets.

According to Pettit (1972), Bhattacharya (1979), Miller and Rock (1985), and others, the signaling hypothesis postulates that shifts in dividend policies typically have an impact on share value. Businesses employ dividend distribution as a component of their financing strategy, and as such, dividends have informative value and reveal significant information about the company's potential for future profits (Watts, 1973).

According to Agency Theory, organizations that pay dividends can use them as a tool to cut back on free cash, which will help them minimize the actions of managers who can utilize these resources for a variety of purposes and the associated expenses (Jensen, 1986). Dividends have the potential to reduce agency problems by constraining managers' behavior and communicating a company's commitment to behaving in the best interests of external investors (Easterbrook, 1984; Jensen, 1986; Allen, Bernardo, & Welch, 2000 ; La Porta et al., 2000; Myers, 2000).

Law No. 6,404 (1976), which was modified by Laws No. 10,303 (2001) and No. 11,638 (2007), governs dividend distribution in Brazil. One of the unique features of this legislation is that, in cases where the company's bylaws are silent on the subject, a minimum dividend payment of 25% of the adjusted net profit for the year must be made to shareholders. According to La Porta et al. (2000) and Vancin & Procianoy (2016), the mandated minimum dividend serves as a safeguard for minority shareholders by ensuring a minimum payment for their capital and preventing the dominating shareholder from keeping all profits.

Law No. 9,249 (1995) introduced Interest on Equity (JSCP), an additional method of sharing results to shareholders, in addition to the obligatory minimum dividend. Applying the long-term interest rate to the company's net equity yields the JSCP. JSCP can be deducted from the minimum mandatory dividend, net of its withheld income tax value (Comissão de Valores Mobiliários [CVM], 2012).

2.2 Quality of Profits

One of the most important aspects of a company's financial performance is its capacity to maintain its gains over time. In order to quantify the value of the firm, quality increases should not only reflect current performance but also serve as a predictor of the organization's capacity to maintain these gains in the future (Dechow & Schrand, 2004). A well-functioning records system yields high-quality reported profits that aid in decision-making by offering valuable information. Therefore, future dividend payments, share value, and business profitability are all predicted by high-quality earnings.

However, there is no one metric that can be used to determine the quality of earnings because it is not observable directly. Rather, it relies on measuring it using proxies (Ewert & Wagenhofer, 2012). Several measures, including discretionary accruals, quality of accruals, earnings persistence, investor responses to earnings, and external indicators that reflect earnings distortions, have been developed as proxies to measure earnings quality by the empirical literature (Schipper & Vincent, 2003; Dechow & Schrand, 2004; Francis, Olsson, & Schipper, 2006; Dechow, Ge, & Schrand, 2010).

Accruals are categorized as normal or abnormal based on Jones' (1991) total accruals projection model. The frequency of anomalous accruals is adversely correlated with the quality of earnings. According to Perotti and Wagenhofer (2014), because accruals link working capital provisions to past, present, and future cash flows of operations, they are a more relevant metric than other accounting-based metrics. As a result, when this mapping explains accruals more precisely and the residual of a regression based on these cash flows is smaller, the quality of earnings is higher (Perotti & Wagenhofer, 2014).

A number of other research (Schipper & Vincent, 2003; Dechow & Schrand, 2004; Lustosa, Fernandes, Nunes, & Araujo Junior, 2010; Skinner & Soltes, 2011; Perotti & Wagenhofer, 2014) have linked earnings persistence to the quality of wages. The degree to which present advantages hold up or recur in the future is measured by persistence. Investors particularly value this approach as it offers a way to provide results that are reliable, durable, and less variable (Perotti & Wagenhofer, 2014).

According to Perotti and Wagenhofer (2014), value relevance - which is determined by the profit response coefficient (CRL) - can serve as a proxy for the quality of profit. This metric, which is based on market response, makes it possible to evaluate the equity worth of the business using reported profits. According to Perotti and Wagenhofer (2014), the CRL is the slope coefficient in a regression of market returns on earnings that is occasionally increased by changes in earnings or the regression's R².

2.3 Dividend Distribution and Earnings Quality

According to research on dividends, profits would be linked to reduced uncertainty regarding the anticipated free cash flow—which is under management's control—when dividend payments are made. By doing this, the likelihood of opportunistic managerial behavior would decrease (Glassman, 2005). Thus, dividend policy is essential for boosting investor confidence and, by including

more investors, it can even reduce opportunistic behavior (Mousa & Desoky, 2019; Pathak & Ranajee, 2020). Thus, compared to managers of non-dividend-paying enterprises, the current research assumes that managers of dividend-paying companies would be less likely to declare discretionary manipulated earnings. Another greater quality feature of earnings is seen in this lower degree of discretionary accruals.

For a number of reasons, dividend payments are thought to be correlated with the caliber of earnings. The primary factor influencing managers' decisions about dividends is a steady and verified cash flow (Brav et al., 2005; Chay & Suh, 2009). This consistent cash flow may be a sign of longer-term and, consequently, higher-quality earnings.

Additionally, investors think that dividends provide extra information about the operation of the company and use the information they transmit as insurance against reported earnings. In this sense, the return on dividend-paying companies' stock would react more strongly to fluctuations in earnings, indicating that these businesses' profits are more informative.

Research on dividend payments has been conducted to see if they can reveal information about the caliber of reported earnings on their own, independent of distribution policy adjustments. In order to determine if American companies that pay dividends have more stable profitability than those that do not, Skinner and Soltes (2011) looked at the relationship between dividends and sustainability of earnings. Their findings suggest that dividend-paying companies' reported earnings are more consistent.

Supporting evidence for the issue is provided by Tong and Miao (2011), who demonstrate that American dividend-paying corporations had lower discretionary accruals and more relevant earnings in terms of value. They believe that businesses that give out larger dividends have a stronger link with this. Caskey and Hanlon (2013) discovered that businesses who were accused of fraud by the Securities and Exchange Commission (SEC) had lower profits quality and paid dividends less frequently than businesses that were not. Dechow et al. (2010) note that as not all of the enterprises under investigation exhibit deliberate distortions, this proxy might not accurately reflect the quality of profits.

According to Liu and Espahbodi's (2014) observations, dividend-paying businesses smooth their results more often in an effort to lessen variations in the dividend payout index. Additionally, compared to companies that do not pay dividends, their results show that these corporations manage their earnings more, which suggests that their profits are of lesser quality.

He et al. (2017) looked at the institutional features and degree of transparency of each nation as they investigated the relationship between dividend payments and earnings management in businesses from 29 different nations. The findings show that dividend payers manage less than non-payers, and the evidence for this is more pronounced in nations with inadequate investor protection and low levels of transparency.

The study conducted by the studies that were quoted was limited to developed market enterprises. The premise that corporations that pay dividends

have higher-quality outcomes than those that don't was not jointly tested by them regarding the several aspects of earnings quality.

Research on dividend payments has been conducted to see if they can reveal information about the caliber of reported earnings on their own, independent of distribution policy adjustments. In their 2014 study, Rodrigues Sobrinho et al. examined whether Brazilian public businesses' decisions to distribute dividends during a certain period contained indicators of higher-quality reported earnings, as indicated by less discretionary accruals managed. Their findings suggest that companies that issue dividends do not exhibit worse levels of earnings management, or perhaps that there is no connection between the quality of accounting profit and dividend payments.

After examining the relationship between dividend payments and the quality of earnings for Chinese enterprises, Deng et al. (2017) came to the conclusion that dividend payments are linked to higher quality accruals, more consistent earnings, and more informative earnings. In the context of South Africa, Rampershad and Villiers (2019) examined whether the dividend payment status and size are related to the quality of accruals and, consequently, profitability. Their findings suggest that companies with higher dividend payments have accruals of higher quality.

Nguyen and Bui (2019) examined the association between dividend policy and the quality of profits of Vietnamese public firms and found that payers had higher-quality profits than non-payers. Hussain and Akbar (2022) limited the quality of earnings to the earnings management component while analyzing this relationship using the Chinese market. According to their research, managers' participation in profits management techniques is limited by dividend distributions. Nevertheless, they find that groups of large dividend payers are less involved with management when compared to those of small dividend payers.

He et al. (2017) suggest that one possible explanation for the controversy surrounding the results is that non-American companies appear less concerned about dividend reductions, suggesting that the relationship between dividend payments and earnings management may not hold true or may be weaker outside of the American context. However, these authors think that a lack of protection for minority and investment shareholders would make it more important for these businesses to demonstrate their quality by other, more reliable indications.

The first research hypothesis is developed as follows, drawing from the hypotheses already presented as well as the results of earlier investigations:

H₁: Dividend-paying businesses have higher-quality earnings.

Legal requirements in Brazil may distort the distribution of dividends from a decision made voluntarily, and they may cease to serve as a signal of profitability information. According to Vancin and Procianoy (2016), only businesses who pay dividends over the minimal value do so because they want to, letting the market know that they made this choice on their own terms and not because they had to. Because of this, it's interesting to distinguish between businesses that merely pay the minimum dividend and those that pay more than this amount—whether set forth in the company's bylaws or decided upon by the government.

Thus, the second study hypothesis is developed as follows, taking into account the peculiarities of the dividend distribution policy in Brazil, as noted by Vancin & Procianoy (2016):

H₂: Businesses with higher dividend payments than the legally required minimum have higher-quality earnings.

3 METODOLOGICAL PROCEDURES

3.1 Data and Sample

The sample comprises publicly traded Brazilian corporations whose shares are traded on Brasil, Bolsa, and Balcão SA (B3 SA). Financial institutions are not included in the sample because the accepted metric makes it impossible to estimate accruals. The Economática® program provided the data for this study, which was based on financial data released by the aforementioned businesses between 2010 and 2019.

Table 1

Sample Definition

| | |
|--|-------|
| Initial observations (354 firms/year) | 3,540 |
| (-) Companies in the Financial Sector (78 firms/year) | 780 |
| (-) Companies with incomplete information (131 companies/year) | 1,310 |
| (-) Outliers | 90 |
| (=) Final Sample (136 firms/year) | 1,360 |

Source: Research data.

Following the original sample, financial sector companies were removed because of the manner their data is presented in their reports, which makes accruals estimation unfeasible. Additionally, businesses that lacked the necessary data for the other regression models in use or that were needed to estimate accruals were not included. After removing the outliers, the final sample consisted of 1,360 observations from a balanced panel of about 136 companies over the course of the ten years under study.

Following sample selection, it was discovered that a very small percentage of the variables used to estimate the models had missing values (less than 0.001%). In this regard, it was decided to utilize the closest neighbor (that is, the value of the variable from the same company in the year prior to or after) to fill in the missing values. Similar to Deng et al. (2017), the ownership concentration (CON) variable was not winsorized because the box-plot graph analysis did not show that it was necessary. Instead, data for continuous variables were winsorized at 1% on both sides of the distribution.

The lagged independent variables that are added on the right side of the equation (1) cause the models to lose one year of observations. Understanding the period of application of the accounting principles established by the Accounting Pronouncements Committee - CPC (2010) justifies the choice of period, which improves the uniformity of the data and the accuracy of the analysis.

3.2 Models Employed

The study tests the relationship between dividend payments and earnings quality using the same conceptual models as Deng et al. (2017). The informational dividend hypothesis is supported by these models, which predict that greater dividend-paying corporations will have higher-quality earnings. The three proxies used to measure earnings quality are accruals quality, earnings persistence, and earnings informativeness.

Three proxies were used to represent the payment of dividends: (1) dividends paid continuously; (2) a dummy to indicate whether the company paid dividends in that particular year; and (3) a third dummy to indicate whether the company paid dividends in excess of the 25% legal limit.

The model in equation 1 refers to the persistence of earnings (permanent operating cash flows) and estimates the impact of dividend payments on this proxy for earnings quality.

$$Earnings_{i,t} = \alpha + \beta_1 \times Earnings_{i,t-1} + \beta_2 \times Dividends_{i,t-1} + \beta_3 \times Earnings_{i,t-1} \times Dividends_{i,t-1} + e_{i,t} \quad (1)$$

In equation 1, Earnings represents earnings per share, normalized by the share price, and Dividends can take three forms, in all models, each estimated by a different equation: (1.1) dividend paid per share normalized by the share price (divpay); (1.2) equal to 1 if the company paid a dividend in that year and 0 otherwise (d_div); and (1.3) equal to 1 if the company paid dividends above the legal limit (25%) in that year and 0 otherwise (divmaior). The description of the variables is found in Table 1. It is expected that β_1 is positive, and β_3 , which reflects the incremental effect of dividend payments, is also positive, suggesting that dividend payments increase the persistence of earnings.

Equation 2 presents the model that relates the payment of dividends and investors' response to profits, as a proxy for the quality of profits. In this model, it is assumed that if dividends are associated with better earnings quality, investors would consider dividend payments as additional information to reported earnings. Therefore, stock returns respond more to the variation in earnings of companies that pay more dividends.

$$Ret_{i,t} = \alpha + \beta_1 \times Earnings_{i,t} + \beta_2 \times \Delta Earnings_{i,t} + \beta_3 \times Dividends_{i,t} + \beta_4 \times \Delta Earnings_{i,t} \times Dividends_{i,t} + e_{i,t} \quad (2)$$

In equation 2, *Ret* represents the discrete annual return (between January and December) adjusted by market performance (market model). For this adjustment, the Ibovespa return in the same period *t* and the company's beta calculated in a window of 60 previous months were considered. If dividends provide additional information to investors, it is expected that β_4 will be positive.

The impact of dividend payments on the last proxy for earnings quality is measured by the model presented in equation 3.

$$ACCD_{i,t} = \alpha + \beta_1 \times Dividends_{i,t} + Controls_{i,t} + e_{i,t} \quad (3)$$

In this model, it is argued that dividend payments can reduce free cash flows and restrict opportunistic managerial behavior, so management has less discretion over earnings. Therefore, the quality of accruals (ACCD) was selected to capture this discretion. The expected association between ACCD and Dividends is negative (i.e., $\beta_1 < 0$). Seeking to prove this conjecture, the Jones (1991) model modified by Dechow, Sloan, and Sweeney (1995) was used to estimate the dependent variable ACCD, mentioned in equation 3:

$$ACCT_{i,t} = \beta_0 + \beta_1 \left(\frac{1}{AT_{i,t-1}} \right) + \beta_2 (\Delta RL_{i,t} - \Delta CR_{i,t}) + \beta_3 (PPE_{i,t}) + \beta_4 (ROA_{i,t}) + \varepsilon_{i,t} \quad (4)$$

In this equation $ACCD_{i,t} = |\varepsilon_{i,t}|$ and each of the variables in equation 4 are normalized by the total asset value (AT) at t-1. *RL* represents net revenue; *CR*, accounts receivable; *PPE*, fixed assets; and *ROA*, the return (net profit) on the asset. The ACCT value was calculated from equation 5:

$$ACCT_{i,t} = (\Delta AC_{i,t} - \Delta PC_{i,t} - \Delta Caixa_{i,t} + \Delta Dividas_{i,t} - \Delta Depre_{i,t}) / AT_{i,t-1} \quad (5)$$

Where, *AC* represents current assets; *PC* current liabilities; *Cash* is the value of cash; *Debts* are the value of loans and financing; and *Depre* represents the value of depreciations. For calculations of discretionary accruals ($|\varepsilon_{i,t}|$) in equation 4, as well as in Deng *et al.* (2017), *Year* and *Sector* were also used as controls. The other control variables (*Controls*) included in equation 3 are shown in Table 2.

3.3 Description of Variables and Applied Tests

The variables used in the research, tested in national and international literature, are defined in Table 2.

Table 2
Definition of variables

| Panel A - Dependent variables: measuring earnings quality | |
|--|--|
| Variable | Definition |
| Earnings | It measures the persistence of earnings through earnings per share (EPS) normalized by the share price (P) in the same period (ie, EPS_t / P_t), as proposed in equation (1). This variable is also used as an independent variable in equation (1) itself, in a lagged manner, and in equation (2) |
| Ret | It represents the discrete annual return $[(P_t - P_{t-1}) / P_{t-1}]$ adjusted by the market model, that is, for a company <i>i</i> in year <i>t</i> $Ret_{i,t} = [(P_{i,t} - P_{i,t-1}) / P_{i,t-1}] - \beta_{i,t} \times RM_t$, where $\beta_{i,t}$ is the beta of company <i>i</i> in year <i>t</i> calculated based on the previous 60 months and $RM_t =$ return discrete Ibovespa index in period <i>t</i> . This variable is used to estimate the models in equation (2). |
| ACCD | These are the discretionary accruals estimated from the modified Jones (1991) model, according to equations (4) and (5). From the total accruals calculated by equation (5), use them as the dependent variable of equation (4). The values of the ACCD variable are the absolute residuals (in modulus) of equation (4). |
| Panel B - Independent variables: proxies to measure dividend payments (Dividends) | |
| Variable | Definition |
| Divpay | Represents the <i>dividend payout</i> in its continuous form, normalized by the share price (ie, the value of the dividend per share divided by the share price) |

| | |
|----------|--|
| d_div | Dummy variable that identifies whether dividends were paid in that year, that is: equal to 1 if <i>dividend payout</i> > 0 or equal to 0 otherwise |
| Divmaior | Dummy variable that identifies whether dividends were paid above the legal limit of 25% in that year, that is: equal to 1 if the company distributed at least 25% of profits or equal to 0 otherwise |

Panel C - Control variables: variables compiled under the acronym Controls in equation (3)

| Variable | Definition |
|----------|---|
| AT | Natural logarithm of total assets |
| ALAV | Leverage obtained by dividing third-party capital (PC + PNC) by total Assets. |
| ML | Net margin, which is the ratio between net profit and net revenue. |
| CON | Concentration of shares (value between 0 and 1) in the company's largest shareholder in the period |
| GC | Dummy that identifies whether the company participates in the Novo Mercado or Level I of B3 governance in the current year |
| PART | Dummy that identifies whether the board of directors or board of directors participated in the company's results in that period |
| STK | Dummy that identifies whether or not the company has a <i>stock option program</i> for the board of directors or board of directors in the current year |
| PER | Dummy that indicates whether the company made a loss in the current year, that is, if EBIT < 0 the variable takes the value 1, otherwise equal to 0. |

Source: Prepared by the authors.

Temporal dummies were employed in all estimated models to manage the time impact. Unlike Deng et al. (2017), the Sector variable was not included as a control in the models of equations 1 and 2, as the Breusch-Pagan, Chow, and Hausman tests were oriented toward fixed effects models, as will be shown later. Deng et al. (2017) ignored the data's panel structure and employed pooled models. The Breusch-Pagan, Chow, and Hausman tests focused on random effects models in the instance of equation 3. Therefore, these models made use of sector control.

Additionally, alternative methods were employed to account for these issues in the setting of panel data because the Wooldridge and Wald tests rejected the premise that there was no homoscedasticity and no first-order serial autocorrelation [AR(1)], respectively. The Prais-Winsten estimator was applied to fixed effect models, based on the assumption that errors are autocorrelated and heteroscedastic [AR(1)]. Additionally, the robust standard errors of the GLS (Generalized Least Squared) estimator were taken into consideration for the random effects models.

The variance inflation factor (VIF) was used to evaluate the presence of multicollinearity, and none of the estimated models had any issues (VIF > 5). It is important to note that all calculations were carried out after multivariate outliers were eliminated. These outliers were found using Baum's recommended cutoff point and the *dfits* statistic for each standardized residue (2006). Excluding observations with $|dfits| > 2(k/N)^{1/2}$ is the condition, where N is the number of observations and k is the number of model parameters.

4 ANALYSIS AND DISCUSSION OF RESULTS

First, the data were subjected to a descriptive analysis, the findings of which are displayed in Table 3.

Table 3
Description of research variables (sample with outliers)

| Variables | Average | Standard Deviation | Coeff. Var.(%) | Min | Max |
|-----------|---------|--------------------|----------------|---------|--------|
| Earnings | 0.03 | 0.60 | 2,000 | -2.89 | 1.46 |
| Ret (%) | 7.43 | 47.66 | 641 | -78.90 | 157.38 |
| ACC | 0.06 | 0.06 | 100 | 0.00 | 0.41 |
| Divpay | 0 .03 | 0.05 | 167 | 0.00 | 0.21 |
| d_div | 0.70 | 0.46 | 66 | 0.00 | 1.00 |
| Divmaior | 0.76 | 0.42 | 55 | 0.00 | 1.00 |
| ln(AT) | 14.90 | 1.73 | 12 | 10.91 | 18.71 |
| ALAV (%) | 70.92 | 47.16 | 66 | 15.23 | 270.51 |
| ML (%) | -1.30 | 33.47 | -2,575 | -161.02 | 52.91 |
| WITH | 0.46 | 0.26 | 57 | 0.00 | 1.00 |
| GC | 0.57 | 0.49 | 86 | 0.00 | 1.00 |
| PART | 0.37 | 0.48 | 130 | 0.00 | 1.00 |
| STK | 1,450 | 0.34 | 138 | 0.00 | 1.00 |
| PER | 1,450 | 0.13 | 262 | 0.00 | 1.00 |

Notes. The variables are defined in Table 1. ln indicates the natural logarithm. % indicates that the variable was collected as a percentage. In the case of *dummy* variables, the mean represents the relative frequency (in unitary form) of the presence of the characteristic. Source: Prepared by the authors.

Since almost all of the variables have coefficients of variation above 50%, the data are generally highly heterogeneous among themselves. The variables having the highest coefficients of variation were the sample companies' net margin and average earnings per share. The standard deviation and average EPS value were 0.6 and 0.03, respectively. With a standard deviation of 33.5%, the average ML of the firms was -1.3%. The yearly return on shares, with an average value of 7.43% and a standard deviation of almost 48%, was another measure that showed significant variation. There was some homogeneity among the sample companies only in terms of size (the coefficient of variance is only 12%).

The association between dividends and earnings quality as determined by earnings persistence is seen in Table 4. As shown in the models using the dividend yield and a dummy for the variable payouts, the findings show that the payment of dividends has no discernible impact on the quality of profits, which leads to the partial rejection of hypothesis 1. Nevertheless, the comparison of the profits from the prior year and the dividend payment shows that, in contrast to predictions, the difference β_3 is negative, meaning that, as determined by persistence, the dividend payment does not represent a higher quality of earnings.

A positive and substantial association was found in model 1.3, which takes into account dividend payments above the statutory minimum. This suggests that companies that pay dividends over the mandatory minimum will have higher-quality earnings. This finding prevents us from rejecting hypothesis 2. The results of

this study support the research of Skinner and Soltes (2011) and Deng et al. (2017), but only when businesses that pay dividends over the required minimum are taken into account.

Table 4

Estimated parameters and diagnostic tests for earnings persistence models (Earnings_t)

| Variables | Model 1.1 | | Model 1.2 | | Model 1.3 | |
|--|------------------|----------------|------------------|----------------|------------------|----------------|
| | Coefficient | Standard error | Coefficient | Standard error | Coefficient | Standard error |
| Earnings _{t-1} | 0.48*** | 0.05 | 0.60*** | 0.08 | 0.51*** | 0.07 |
| divpay _{t-1} | 0.02 | 0.20 | | | | |
| Earnings _{t-1} *divpay _{t-1} | -2.15*** | 0.64 | | | | |
| d_div _{t-1} | | | 0.00 | 0.02 | | |
| Earnings _{t-1} *d_div _{t-1} | | | -0.30*** | 0.09 | | |
| divmajor _{t-1} | | | | | 0.04** | 0.02 |
| Earnings _{t-1} *divlargest _{t-1} | | | | | -0.18*** | 0.07 |
| Constant | 0.01 | 0.28 | 0.08 | 0.20 | 0.21 | 0.26 |
| Control by YEAR | Yes | | Yes | | Yes | |
| No. Observations | 1224 | | 1221 | | 1229 | |
| Number of groups | 145 | | 145 | | 145 | |
| R ² (%) | 59.20 | | 59.40 | | 55.60 | |
| RMSE | 0.204 | | 0.202 | | 0.207 | |
| χ ² (p-value) | 2302.44 (0.000) | | 2341.51 (0.000) | | 2257.74 (0.000) | |
| Diagnostic Tests | Statistic | p-value | Statistic | p-value | Statistic | p-value |
| Wooldrige Test | 30,562 | 0.000 | 50,291 | 0.000 | 36,591 | 0.000 |
| Wald Test | 6.80E+05 | 0.000 | 1.70E+06 | 0.000 | 6.50E+07 | 0.000 |
| Breusch-Pagan test | 0.000 | 1,000 | 0.000 | 1,000 | 0.000 | 1,000 |
| Chow Test | 1,690 | 0.000 | 1,830 | 0.000 | 1,670 | 0.000 |
| Hausman test | 120,190 | 0.000 | 135,320 | 0.000 | 114,260 | 0.000 |

Notes. * significant at 10%; ** significant at 5%; *** significant at 1%. Fixed effects models estimated by Prais-Winsten with standard errors corrected for heteroscedasticity and autocorrelation, considering that the panels are not contemporaneously correlated, but each panel has its own autocorrelation estimate. The autocorrelation estimate [AR(1)] was performed using the Durbin-Watson statistic. Variable definitions are presented in Table 1. RMSE = root mean square error.

Source: Prepared by the authors.

For fundamentalist investors, who follow the premise that dividend payments might limit opportunistic managerial activity and lower free cash flows, this outcome may serve as a warning. The results of this study are supported by the recent example of Lojas Americanas, which, according to Folha de São Paulo (2023), made payments exceeding the sector average for the previous ten years.

The results of the correlation between dividend payments and earnings informativeness—a proxy for the quality of earnings—are shown in Table 5. Taking into account three proxies for the dividend variable, the study investigated three models for the information content of profits. In contrast to Deng et al. (2017), model 2.1's results regarding paid dividends demonstrate that the coefficients are significant, suggesting that dividends can provide investors with new information about profitability. Dividend-paying companies, on the other hand, would be less informative due to their weaker stock reaction.

The models that pay dividends using a dummy and in which the payment is made in excess of the minimum required payout failed to demonstrate statistical

significance. The second research hypothesis is rejected as a result of these findings. However, the additive impact of dividends on the informativeness of earnings is reflected in the interaction term between the dividend payment and the change in earnings.

Table 5

Estimated parameters and diagnostic tests for information content models I (Ret_t)

| Variables | Modelo 2.1 | | Modelo 2.2 | | Modelo 2.3 | |
|---|------------------|----------------|------------------|----------------|------------------|----------------|
| | Coeff. | Standard error | Coeff. | Standard error | Coeff. | Standard error |
| Earnings _t | 6.80*** | 1.94 | 5.54*** | 1.79 | 7.70*** | 1.79 |
| ΔEarnings _t | -0.31* | 0.16 | -0.57*** | 0.17 | 2.12*** | 0.55 |
| divpay _{t-1} | -54.21** | 26.00 | | | | |
| ΔEarnings _t *divpay _t | 17.60*** | 4.07 | | | | |
| d_div _{t-1} | | | 2.03 | 3.56 | | |
| ΔEarnings _t *d_div _t | | | 1.39*** | 0.29 | | |
| divmaior _t | | | | | 3.97 | 2.55 |
| ΔEarnings _t *divmaior _t | | | | | -2.39*** | 0.57 |
| Constant | 12.85 | 15.47 | 11.54 | 14.33 | 5.90 | 16.56 |
| Control by Year | Sim | | Sim | | Sim | |
| Nº Observações | 1,364 | | 1,359 | | 1,354 | |
| Nº Grupos | 145 | | 145 | | 145 | |
| R ² (%) | 30.40 | | 31.80 | | 32.10 | |
| RMSE | 33,972 | | 33,141 | | 33,164 | |
| χ ² (p-value) | 758.04 | (0.000) | 813.00 | (0.000) | 826,93 | (0.000) |
| Diagnostic Tests | Statistic | p-value | Statistic | p-value | Statistic | p-value |
| Wooldrige Test | 25,020 | 0.000 | 23,668 | 0.000 | 22,513 | 0.000 |
| Wald Test | 1241,950 | 0.000 | 1192,820 | 0.000 | 1275,400 | 0.000 |
| Breusch-Pagan test | 0.000 | 1,000 | 0.000 | 1,000 | 0.000 | 1,000 |
| Chow Test | 1,540 | 0.000 | 1,320 | 0.010 | 1,450 | 0.000 |
| Hausman test | 72,790 | 0.000 | 73,660 | 0.000 | 60,930 | 0.000 |

Legenda: * significativo a 10%; ** significativo a 5%; *** significativo a 1%. Modelos de efeitos fixos estimados por Prais-Winsten com erros-padrão corrigidos para heterocedasticidade e autocorrelação, considerando que os painéis não são contemporaneamente correlacionados, mas cada painel tem sua própria estimativa de autocorrelação. A estimativa de autocorrelação [AR(1)] foi procedida através da estatística de Durbin-Watson. As definições das variáveis são apresentadas na Tabela 1. RMSE = raiz quadrática média dos erros.

Source: Prepared by the authors.

The results of the correlation between dividend payments and accruals' quality—an additional stand-in for earnings' quality—are shown in Table 6. The findings for the other earnings quality proxies already examined in this study are supported by Table 6's results, which likewise lead to the denial of hypothesis 1. It is found that there is no significant relationship between anomalous accruals and dividend payments in the three models shown in Table 6. In contrast, the theory suggested that dividend payments would limit managers' free cash flow and, as a result, managerial discretion in accruals, presenting a negative connection with $\beta_1 < 0$. However, this did not happen.

The quality of earnings, as determined by discretionary accruals, is unaffected by dividend payments over the minimum required since, according to

this estimation model, the coefficient did not demonstrate statistical significance, hence rejecting hypothesis 2.

Only asset size and governance level, out of all the control variables in the model, demonstrated statistical significance. The asset size variable exhibits the behavior of larger organizations having less earnings management and better quality accruals.

Table 6
Discretionary accruals models ($ACCD_t$)

| Variables | Model 3.1 | | Model 3.2 | | Model 3.3 | |
|-------------------------|------------------|----------------|------------------|----------------|------------------|----------------|
| | Coefficient | Standard error | Coefficient | Standard error | Coefficient | Standard error |
| divpay _t | 0.02 | 0.04 | | | | |
| d_div _t | | | 0.00 | 0.00 | | |
| divlargest _t | | | | | 0.00 | 0.00 |
| ln(At_t) | -0.00** | 0.00 | -0.00** | 0.00 | -0.00** | 0.00 |
| ALAV _t | 0.00* | 0.00 | 0.00 | 0.00 | 0.00* | 0.00 |
| ML _t | 0.00 | 0.00 | 0.00* | 0.00 | 0.00 | 0.00 |
| CON _t | 0.00 | 0.01 | 0.00 | 0.01 | 0.00 | 0.01 |
| GC _t | 0.00** | 0.00 | 0.00** | 0.00 | 0.00** | 0.00 |
| PART _t | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| STK _t | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PER _t | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Constant | 0.09*** | 0.02 | 0.09*** | 0.02 | 0.09*** | 0.02 |
| Control by SECTOR | Yes | | Yes | | Yes | |
| Control by YEAR | Yes | | Yes | | Yes | |
| No. Observations | 1,343 | | 1,342 | | 1,341 | |
| Number of groups | 144 | | 144 | | 144 | |
| R ² (%) | 8.50 | | 8.10 | | 8.40 | |
| RMSE | 0.039 | | 0.038 | | 0.038 | |
| χ^2 (p-value) | 110,800 | (0.000) | 108,003 | (0.000) | 111,854 | (0.000) |
| Diagnostic Tests | Statistic | p-value | Statistic | p-value | Statistic | p-value |
| Wooldrige Test | 14,560 | 0.000 | 12,923 | 0.000 | 15,971 | 0.000 |
| Wald Test | 1.39E+04 | 0.000 | 1.09E+04 | 0.000 | 1.10E+04 | 0.000 |
| Breusch-Pagan test | 36,530 | 0.000 | 41,210 | 0.000 | 32,680 | 0.000 |
| Chow Test | 2,370 | 0.000 | 2,400 | 0.000 | 2,260 | 0.000 |
| Hausman test | 26,730 | 0.062 | 25,400 | 0.086 | 24,150 | 0.115 |

Notes. * significant at 10%; ** significant at 5%; *** significant at 1%. Random effects models estimated by GLS with robust standard errors. Variable definitions are presented in Table 1. RMSE = root mean square error.

Source: Prepared by the authors.

The conclusions of He et al. (2017), who discovered that companies from nations with poorer levels of governance and fewer investor protection would see a more severe negative association between dividend payment status and profits management, are not supported by the results of this study. Nonetheless, the

nation's institutional framework and the mandated dividend distribution can aid in explaining the outcomes (Decourt & Procianoy, 2012). In contrast to the conclusions of Deng et al. (2017), the discrepancy can be explained by the significant variations in the two nations' dividend tax laws. The tax code in China mandates that investors pay taxes on cash dividends, and the government has a significant amount of influence over the stock market (Wang, Manry, & Wandler, 2011). These gains are not taxable in Brazil.

Consequently, none of the results support hypothesis 1, which holds that the distribution of dividends represents the highest caliber of earnings. However, the Brazilian institutional context, which mandates the payment of a minimum required payout and the exemption from dividend taxation, might have an impact on these outcomes. In light of this, it can be seen that the second hypothesis's postulate cannot be rejected just for the earnings persistence proxy, suggesting that businesses with dividend payments over the required minimum exhibit stronger earnings persistence. It hasn't been demonstrated, therefore, that businesses that pay dividends beyond the required minimum inevitably have more informative or less managed results, with regard to the other proxies of earnings quality.

This study's results analysis was limited to a single kind of results management. For example, management that takes place through operational activities was not taken into account in our analysis. In addition, financial statement preparers frequently use their professional judgment in an effort to accurately portray the transaction's economic nature.

The most recent instance of management via accounting judgment is the Lojas Americanas case. The business executed the so-called "drawn risk" or "forfeit," a financial institution-provided receivables anticipation method. In this instance, Lojas Americanas moved their supplier-obtained obligations to financial institutions, when it entered into a longer-term loan arrangement and started to accrue interest. The Securities and Exchange Commission (CVM, 2016) has previously established regulations governing the conduct of these transactions. Nonetheless, regardless of whether it is a financial or commercial transaction, people in charge of accounting can use their discretion to determine the proper accounting treatment because IFRSs do not provide any explicit guidance on this kind of transaction.

Analysis of earnings management by quality of accruals does not reveal this kind of accounting decision that businesses make.

5 FINAL CONSIDERATIONS

This study sought to determine whether dividend payments are linked to higher-quality profits for companies that were listed on the B3 between 2010 and 2019. The persistence of earnings, the informational content of profits as measured by the earnings response coefficient, and the quality of accruals as determined by the modified Jones (1991) model and discretionary accruals were all taken into account in order to reflect the quality of profits. Regarding dividends, we examined the dividend yield, a dummy that indicated whether or not dividends were paid, and the existence of dividend payments over each model's required minimum.

Based on the following assumptions, the research was conducted: i) investors would view dividend payments as extra information to reported earnings; ii) the payment of dividends can reduce managers' free cash flow, restricting their discretion in accruals and, as a result, improving the quality of profits; and iii) the return on shares would respond more to the variation in earnings of companies that pay more dividends.

The three models' empirical results contradicted the international literature that backed this research and did not support the hypotheses put forth (Skinner & Soltes, 2011, Tong & Miao, 2011, Deng et al., 2017, He et al., 2017, Rampershad, Villiers, 2019). Based on the computed regressions, it can be concluded that there is no correlation between dividend payments and sustained earnings, nor between reduced levels of discretionary accruals. Only the amount of earnings informativeness shows a significant association, indicating that companies that pay dividends would have a smaller share reaction, or lesser informativeness.

In Brazil, the government mandates dividend payments rather than the decision being entirely discretionary and attributable to management. As a result, we examined businesses that give dividends higher than the minimum needed by law. The outcomes of testing hypothesis 2 are significant because they speak to businesses where the choice to pay dividends has really been made (Vancin & Procianny, 2016). Hypothesis 2 is similarly rejected based on the results of two of the three elements that were evaluated, since it is not established that companies who pay dividends beyond the legally required minimum also inevitably have less earnings management or more earnings informativeness. A substantial positive association was only seen for the persistence of improvements.

The results of this investigation align with the conclusions of Rodrigues Sobrinho et al.'s (2014) study, confirming that in the Brazilian market, dividend payments do not always imply higher-quality earnings. We can watch how and when the information content of dividends changes according to the institutional scenario. In China, for instance, the findings might have been affected by the requirement that businesses pay cash dividends in order for the Chinese government to authorize requests to issue additional shares.

It would be interesting to explore in future research whether the inclusion of elements that affect the incentives to pay dividends, like refinancing or share repurchasing, can affect the link between dividends and profitability. In addition, investigations including different proxies of earnings quality should take into account the Brazilian institutional environment and its particular dividend laws, which may have an impact on the relationship between dividend payments and reported profits quality. The lack of data provided by the companies in the databases checked, which resulted in a smaller sample size, is one of this work's shortcomings.

REFERENCES

- Allen, F., Bernardo, A. E., & Welch I. (2000). A theory of dividends based on tax clienteles. *The Journal of Finance*, 55(6), 2499-2536. <https://doi.org/10.1111/0022-1082.00298>
- Alli, K. L, Khan, Q., & Ramirez, G. G. (1993). Determinants of Corporate Dividend Policy: A Factor Analysis. *Financial Review*, 28 (4), 523-547. <https://doi.org/10.1111/j.1540-6288.1993.tb01361.x>
- Bhattacharya, S. (1979). Imperfect information, dividend policy, and "the bird in the hand" fallacy. *Bell Journal of Economics*, 10(1), 259-270. <https://doi.org/10.2307/3003330>
- Brav, A., Graham, J., Harvey, C. R., & Michaely, R. (2005). Payout policy in the 21st century. *Journal of Financial Economics*, Elsevier, 77(3), 483-527. <https://doi.org/10.1016/j.jfineco.2004.07.004>
- Baum, C. (2006). *An introduction to modern econometrics using Stata*. Texas: Stata Press.
- Caskey, J., & Hanlon, M. (2005). Do dividends indicate honesty? The relationship between dividends and the quality of earnings. *Working paper*, University of Michigan. Retrieved from <http://ssrn.com/abstract=902080>.
- Caskey, J., & Hanlon, M. (2013). Dividend policy at firms accused of accounting fraud. *Contemporary Accounting Research*, 30(2), 818-850. <http://doi.org/10.1111/j.1911-3846.2012.01173>.
- Chay, J. B., & Suh, J. (2009). Payout policy and cash-flow uncertainty. *Journal of Financial Economics*, 93(1), 88-107. <https://doi.org/10.1016/j.jfineco.2008.12.001>
- Accounting Pronouncements Committee (CPC). CPC 03 (R2) - Cash Flow Statement, 2010. Retrieved from http://static.cpc.aatb.com.br/Documentos/183_CPC_03_R2_rev%2014.pdf
- Dechow, P., Ge, W., & Schrand, C. M. (2010). Understanding earnings quality: A review of the proxies, their determinants and their consequences. *Journal of Accounting and Economics*, 50(2), 344-401. <http://doi.org/10.1016/j.jacceco.2010.09.001>
- Dechow, PM, & Schrand, CM (2004). Earnings quality. *Research Foundation of CFA Institute*, 1-160. Retrieved from <http://scholar.google.com/scholar?hl=en&btnG=Search&q=intitle:Earnings+quality#2>
- Dechow, P. M., Sloan, R. G., & Sweeney, A. P. (1995). Detecting earnings management. *The Accounting Review*, 7(2), 193-225. <https://www.jstor.org/stable/248303>

- CVM Resolution no. 683, of August 30, 2012. Approves the Technical Interpretation ICPC 08(R1) of the Accounting Pronouncements Committee, which deals with the accounting of the dividend payment proposal. Retrieved from <http://conteudo.cvm.gov.br/legislacao/deliberacoes/deli0600/deli683.html>
- Deng, L., Li, S., & Liao, M. (2017). Dividends and earnings quality: Evidence from China. *International Review of Economics and Finance*, 48, 255–268. <http://doi.org/10.1016/j.iref.2016.12.011>
- Denis, DJ, & Osobov, I. (2008). Why do firms pay dividends? International evidence on the determinants of dividend policy. *Journal of Financial Economics*, 89(1), 62–82. <https://doi.org/10.1016/j.jfineco.2007.06.006>
- Easterbrook, F. (1984). Two agency-cost explanations of dividends. *American Economic Review*, 74, 650-659. <https://www.jstor.org/stable/1805130>
- Ewert, R., & Wagenhofer, A. (2012). Earnings Management, Conservatism, and Earnings Quality. *Foundations and Trends in Accounting*, 6(2), 65–186. <https://doi.org/10.1561/14000000025>
- [Infomoney \(2023\). Americanas \(amer3\) last year distributed record dividends for the last decade; it makes sense? Recovered from https://www.infomoney.com.br/onde-invest/americanas-amer3-distribuiu-no-ano-passado-dividendos-recorses-para-a-ultima-decada-faz-sentido/.](https://www.infomoney.com.br/onde-invest/americanas-amer3-distribuiu-no-ano-passado-dividendos-recorses-para-a-ultima-decada-faz-sentido/)
- Fama, E. F., & French, K. R. (2001). Disappearing dividends: changing firm characteristics or lower propensity to pay? *Journal of Financial economics*, 60(1), 3–43. [https://doi.org/10.1016/S0304-405X\(01\)00038-1](https://doi.org/10.1016/S0304-405X(01)00038-1)
- Fernandez, J. (1988). The decision to distribute dividends: empirical investigation in large Spanish companies. *Investigaciones Económicas*, 12(2), 243-258. Retrieved from <https://www.fundacionsepi.es/investigacion/revista.../May1988/v12i2a3.pdf>
- Folha de São Paulo (2023). Americanas paid twice as much in dividends as its main competitors. Retrieved from <https://www1.folha.uol.com.br/mercado/2023/01/americanas-pagou-o-dobro-em-dividendos-que-seus-principais-concursos.shtml>
- Francis, J., Olsson, P., & Schipper, K. (2006). Earnings Quality. *Foundations and Trends in Accounting*, 1(4), 259–340. <https://doi.org/10.1561/14000000004>
- Glassman, J. (2005). When numbers don't add up. *Kiplinger's*, 59(8), 32–34.
- Gordon, J. (1959). Dividends, earnings and stock price. *Review of Economics and Statistics*, 41(2), 99-105. <https://doi.org/10.2307/1927792>

- Hanlon, M., Myers, J., & Shevlin, T. (2007). Are dividends informative about future earnings? Working paper, University of Washington. <https://doi.org/10.2139/ssrn.964279>
- He, W., Ng, L., Zaiats, N., & Zhang, B. (2017). Dividend policy and earnings management across countries. *Journal of Corporate Finance*, 42(C), 267-286. doi:10.1016/j.jcorpfin.2016.11.014
- Hussain, A. & Akbar, M. (2022). Dividend policy and earnings constraints management: Do agency problems and financing matter? *Borsa Istanbul Review*, 22(5), 839–853. <https://doi.org/10.1016/j.bir.2022.05.003>
- Jensen, M., (1986). Agency costs of free cash flow, corporate finance, and takeovers. *American Economic Review* 76, 323-329. <https://www.jstor.org/stable/1818789>
- Jones, J. (1991). Earnings Management during Import Relief Investigations. *Journal of Accounting Research*, 29(2) 193–228. <https://doi.org/10.2307/2491047>
- La Porta, R., F. Lopez-De-Silanes, A. Shleifer, & R. Vishny. (2000). Agency problems and dividend policies around the world. *Journal of Finance* 55, 1-33. <https://doi.org/10.1111/0022-1082.00199>
- Law no. 6,404, of December 15, 1976. Provides for Joint Stock Companies. Recovered from http://www.planalto.gov.br/ccivil_03/leis/l6404compilada.htm
- Law no. 9,249, of December 26, 1995. Amends the legislation on corporate income tax, as well as social contribution on net profit, and provides other measures. Retrieved from http://www.planalto.gov.br/ccivil_03/leis/l9249.htm
- Law no. 10,303, of October 31, 2001. Amends and adds provisions to Law No. 6,404, of December 15, 1976, which provides for Joint Stock Companies, and Law No. 6,385, of December 7, 1976, which provides for the securities market and creates the Securities and Exchange Commission. Official Gazette of the Union, Brasília, DF, 31 Oct. 2001.
- Law no. 11,638, of December 28, 2007. Amends and revokes provisions of Law no. 6,404, of December 15, 1976, and Law no. 6,385, dated December 7, 1976, and extends provisions relating to the preparation and disclosure of financial statements to large companies. Retrieved from http://www.planalto.gov.br/ccivil_03/_ato2007-2010/2007/lei/l11638.htm
- Lintner, J. (1956). Distribution of Incomes of Corporations Among Dividends, Retained Earnings and Taxes, *American Economic Review* 46, 97–113. <https://www.jstor.org/stable/1910664>

- Lintner, J. (1962). Dividends, earnings, leverage, stock prices and the supply of capital to corporations. *Review of Economics and Statistics*, 44, 243-269. <https://doi.org/10.2307/1926397>
- Liu, N., & Espahbodi, R. (2014). Does Dividend Policy Drive Earnings Smoothing?. *Accounting Horizons*, 28(3), 501–528. <https://doi.org/10.2308/acch-50764>
- Lopes, AB, Walker, M., & Silva, RLM (2016) The determinants of firm-specific corporate governance arrangements, IFRS adoption, and the informativeness of accounting reports: Evidence from Brazil. *Journal of International Accounting Research*, 15(2), 101-124. <https://doi.org/10.2308/jiar-51532>
- Lustosa, PRB, Fernandes, JLT, Nunes, DMS, & Araujo Junior, JB (2010). Accounting Estimates and Profit Quality: Sector Analysis in Brazil. *Journal of Accounting Education and Research*, 4(2), 43–61. <https://doi.org/10.17524/repec.v4i2.200>
- Martins, OS, Sousa, RA, & Girão, LFAP (2022). Dividend persistence and earnings management in emerging markets. *Accounting and Finance Magazine*. 33(88), 130-149. <https://doi.org/10.1590/1808-057x202113040>
- Myers, S. (2000). Outside equity. *Journal of Finance*, 55, 1005-1037. <https://doi.org/10.1111/0022-1082.00239>
- Miller, M. H., Modigliani, F. (1961). Dividend policy, growth, and the valuation of shares. *The Journal of Business*, 34(4), 411-433. <https://doi.org/10.1086/294442>
- Miller, M. H., Rock, K. (1985). Dividend policy under asymmetric information. *The Journal of Finance*, 40(4), 1031-1051. <https://doi.org/10.1111/j.1540-6261.1985.tb02362.x>
- Modigliani., & Miller, M. H. (1959). The Cost of Capital, Corporation Finance, and the Theory of Investment: Reply. *The American Economic Review*, 49(4), 655-669. Retrieved from http://lib.cufe.edu.cn/upload_files/other/3_20140507105115_01.pdf
- Naceur, S., Goaid, M., & Belanes, A. (2006). On the determinants and dynamics of dividend policy. *International Review of Finance*, 6(1-2), 1-23. <https://doi.org/10.2139/ssrn.889330>
- Nguyen, TTN & Bui, PK (2019). Dividend policy and earnings quality in Vietnam. *Journal of Asian Business and Economic Studies*, 26(2), 301-312 DOI 10.1108/JABES-07-2018-0047
- Niekel, M. (1994). Factors influencing the distribution of dividends: regression analysis applied to the Madrid Stock Exchange. *Revista Española de Financiación y Contabilidad*, 24(78), 33-69. Retrieved from <https://dialnet.unirioja.es/servlet/articulo?codigo=44127>

- Nobes, C. (1998). Towards a General model of reasons for international differences in financial reporting. *ABACUS*, 14(2), 162-187. <https://doi.org/10.1111/1467-6281.00028>
- Papadopoulos, D. L., & Charalambidis, D. (2007). Focus on Present Status and Determinants of Dividend Payout Policy: Athens Stock Exchange in Perspective. *Journal of Financial Management and Analysis*, 20(2), 24-37.
- Perotti, P., & Wagenhofer, A. (2014). Earnings Quality Measures and Excess Returns. *Journal of Business Finance & Accounting*, 41(5-6), 545-571, 2014. <http://doi.org/10.1111/jbfa.12071>
- Pettit, R. (1972). Richardson. Dividend announcements, security performance, and capital market efficiency. *Journal of Finance*, 27(5), 993-1007. <https://doi.org/10.1111/j.1540-6261.1972.tb03018.x>
- Procianoy, J. L., & Poli, B. T. C. (1993). Dividend policy as a generator of tax savings and capital market development: a creative proposal. *Business Administration Magazine*, 33(4), 06-15. <https://doi.org/10.1590/S0034-75901993000400002>
- Rampershad, A., & Villiers, C. (2019). The Association Between Dividends and Accruals Quality (2019). *Australian Accounting Review*, 29(1), 20-35. <https://doi.org/10.1111/auar.12215>
- Rodrigues Sobrinho, WB, Rodrigues, HS; & Sarlo Neto, A. (2014). Dividends and discretionary accruals: a study on the relationship between dividend distribution policy and earnings quality. *Contemporary Accounting Magazine*, 11(24), 03-24. <https://doi.org/10.5007/2175-8069.2014v11n24p3>
- Sawicki, J. (2009). Corporate governance and dividend policy in southeast Asia pre- and post-crisis. *The European Journal of Finance*, 15(2): 211-230
- Schipper, K., & Vincent, L. (2003). Earnings Quality, *Accounting Horizons*, 17, 97-110. <https://doi.org/10.2308/acch.2003.17.s-1.97>
- Skinner, D. J., & Solttes, E. (2011). What do dividends tell us about earnings quality? *Review of Accounting Studies*, 16(1), 1-28. <https://doi.org/10.1007/s11142-009-9113-8>
- Tong, Y. H., & Miao, B. (2011). Are dividends associated with the quality of earnings? *Accounting Horizons*, 25(1), 183-205. <https://doi.org/10.2308/acch.2011.25.1.183>
- Vancin, D. F., & Procianoy, J. L. (2016). The determining factors for the payment of dividends: the effect of the mandatory legal and contractual minimum in Brazilian companies. *Brazilian Journal of Finance*, 14(1), 89-123. <https://doi.org/10.12660/rbfin.v14n1.2016.53448>

- Vieira, E. (2001). The influence of information content on dividend policy. *Revista Estudos do ISCAA.*, II.ª Série, 6(7), 129-147. Retrieved from <https://proa.ua.pt/index.php/estudosdoisca/issue/view/367>
- Wang, X , Manry, D. , & Wandler, S. (2011) Stock Dividend Policy in China. *Journal of Global Business Management*, 7 (2), 1-9. Retrieved from <http://www.jgbm.org/page/6%20David%20Manry.pdf>
- Watts, R. L. (1973). The information content of dividends. *Journal of Business*, 46, 191–211. <https://doi.org/10.1086/295525>