Evidence on Fair Value in Profit Forecasts: An Analysis Considering the Idiosyncratic Differences in the Influence of the Legal Systems

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ABSTRACT

Objective: this study examines how fair value (FV) accounting affects the accuracy of financial analysts' earnings forecasts and whether this effect varies by legal system (Common Law vs. Civil Law) and International Financial Reporting Standards (IFRS) adoption. **Methods:** using a panel of 1,420 publicly listed companies in 40 countries from 2011 to 2018 (over 32,000 company-quarter observations), we apply generalized linear mixed models to account for the multilevel structure of the data (including time, companies, and countries). We estimate six models to test the direct and interaction effects of FV and IFRS, including stratification by legal system. **Results:** the results indicate that FV usage is associated with lower forecast errors, especially in Civil Law countries. The interaction between FV and IFRS does not significantly affect accuracy in Common Law countries but enhances forecast precision in Civil Law contexts. **Conclusions:** these findings highlight the importance of institutional environments in shaping the effectiveness of accounting practices, reinforcing the need for cross-country perspectives in international accounting research.

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INTRODUCTION

This study aims to analyze the impact of the use of fair value (FV) accounting on analysts' profit forecasts, considering the idiosyncratic differences arising from the influence of the legal systems (Common Law and Civil Law) of 40 countries, as well as the adoption of International Financial Reporting Standards (IFRS), on the accuracy of these forecasts.

That said, we have sought to fill some gaps in the literature. Empirically, we highlight the impact of the country effect on analysts' errors, which, in practice, clarifies the positive or negative implications for investors depending on the country in which they intend to invest. Theoretically, research suggests that the company effect has a greater impact on analyst forecast variation than the country effect. Methodologically, the research highlights the importance of considering the idiosyncrasies of the sample when defining the methodological approach for empirical studies, as we identified greater behavioral disparity between Civil Law countries than between Common Law countries. Finally, the research indicates that the effect of IFRS on the relationship between FV and analyst accuracy differs between legal systems, showing that the use of this accounting practice is more useful to analysts outside developed-market environments.

Capital markets play a fundamental role in driving national economic growth and creating opportunities for companies to expand. From an economic perspective, the primary goal of the capital market is to allocate capital efficiently between agents, encouraging the raising of funds and the diversification of investments. Therefore, market efficiency is essential to ensure that operations result in significant benefits. This occurs when a company's value fully reflects all available information (Fama & Laffer, 1971). However, this process can be hindered by conflicts of interest and opportunism (Jensen & Meckling, 1976). Additionally, information asymmetry between companies and investors, exacerbated by subjectivity in determining FV, can hinder investors' access to relevant information (Ayres et al., 2017).

In this context, analysts act as informational intermediaries by issuing forecasts on companies' performance, offering a complementary perspective that includes expectations about future returns and risks, assessments, and insights into potential future benefits (Gunny & Zhang, 2014). They base their forecasts on company disclosure, combining market information and management reports. However, predicting future returns remains challenging due to the inherent uncertainties associated with upcoming events.

Thus, inaccurate forecasts by analysts can have significant economic and financial impacts, affecting share prices and the cost of debt financing. Accounting information plays a key role in mitigating forecast errors by identifying, measuring, and highlighting a company's financial status. It can provide analysts with essential data for decision-making, reducing informational asymmetry (Yoon et al., 2011). The importance of accounting information in the market has been recognized since Ball and Brown (1968). Efforts to improve its quality through IFRS development aim to provide more comprehensive, transparent, and useful information (Barth et al., 2008).

IFRS discloses company performance more effectively and signals future performance by establishing measurement requirements that positively influence the quality of information (Daske, 2006). Ding et al. (2017) and Ye et al. (2024) document an improvement in the quality of accounting information following the adoption of IFRS, although there is still evidence of divergence when considering the study by Sundgren et al. (2018), which focuses on the European Union.

Studies by Ayres et al. (2017), Magnan et al. (2015), and Riedl and Serafeim (2011) identify that one of the major IFRS regulatory milestones was the transition from measuring the historical cost of assets and liabilities to FV. However, the benefits of this approach remain controversial (Ayres et al., 2017; McGregor, 2021). Goh et al. (2015), for example, suggest that the use of FV can obscure aspects of financial reporting arising from management decisions, leading to greater risks and capital costs, thereby affecting market confidence, depending on the legal system and the adoption of IFRS by the country. Thus, it appears that Common Law countries cope better with FV, while Civil Law countries tend to encounter more challenges, at least in the banking sector (Liao et al., 2020). Furthermore, IFRS adoption influences the interpretation of FV, with adopting countries gaining an advantage (Li & Yang, 2016), especially when the environment is characterized by low investor protection (Georgakopoulos et al., 2022; Houqe et al., 2014).

Although we acknowledge studies that have explored issues such as IFRS adoption and its impact on accounting quality (Barth et al., 2008), the implications of FV accounting on accounting quality, managerial behavior, and disclosure practices (Hope & Thomas, 2008), or the interfaces between legal systems and financial development (La Porta et al., 1998), these were not the primary focus of our research.

Thus, our study confirms that FV has a positive effect on analyst accuracy. By expanding the research sample to include the use or non-use of IFRS and the influence of legal origin, this study provides valuable international

insights, contributing to the analysis of results that could not be generalized due to sample size or short periods analyzed. The research also detected adjustments to the global intercepts of the models based on the effect of each country, enabling future research and investors to examine, for each country, the effect of economic, cultural, and institutional differences on analysts' earnings forecast errors. For Common Law countries, the U.S. country effect is particularly noteworthy, as it reduces analyst error; however, in Malaysia and Hong Kong, the trend is toward increased analyst error. For Civil Law countries, the research highlights that a negative effect on analyst error is observed in Switzerland, Sweden, Germany, Finland, Portugal, France, Brazil, and the Netherlands, while an increasing tendency in analyst error is noted for South Korea, Norway, Luxembourg, Indonesia, Denmark, and Chile.

We also observed greater behavioral differences, or heterogeneity, between Civil Law and Common Law source countries. In addition, the largest adjustment in analysts' forecast errors is 9.63% due to differences between countries and 28.7% due to differences between companies, indicating that the company-specific effect tends to have a greater impact on variation in analysts' forecasts than the country-specific effect.

The following section presents a review of the literature, followed by the research methodology, the presentation and discussion of results, and the concluding remarks.

REVIEW OF PREVIOUS LITERATURE
FV Accounting information
FV represents a measurement method that reflects the amount at which an asset or liability could be exchanged in an arm's-length transaction in the market (Goh et al., 2015; International Financial Reporting Standard [IFRS 13], 2011). It is advisable that the FV be determined based on active market prices whenever such prices are available, as this allows for the assignment of current and market-driven values, independent of acquisition costs (Brînză & Bengescu, 2016). This approach enhances the relevance and reliability of the information. However, in the absence of an active market price, FV must be estimated using technical data that offers the most accurate approximation of market value (Hanley et al., 2018), a process that may inherently introduce a degree of subjectivity.

Consequently, studies have indicated that FV-based reporting can increase earnings volatility due to the sensitivity of adjustments to expectations of future cash flows (Šodan, 2019), as well as to economic fluctuations during periods of crisis (Goh et al., 2015). These variations in estimates may compromise analysts' accuracy

and increase the likelihood of error (Goh et al., 2015; Magnan et al., 2015; Riedl & Serafeim, 2011), as managers may exercise discretion and find it easier to adjust accounting information to suit their interests, particularly given the incentives that may exist for such practices.

Regarding discretion in measuring FV, existing research highlights the challenge posed by unobservable values (Liao et al., 2020) and the complexities involved in estimating this value, given the potential for distortion or forecasting errors. As a result, uncertainty and subjectivity can compromise the quality of information, particularly in volatile economic environments (Brînză & Bengescu, 2016; Sangchan et al., 2020). In this context, Magnan et al. (2015) emphasized the heightened sensitivity of analysts' forecasts in relation to the measurement of observable values compared to active market and unobservable values, indicating that this approach can positively influence the accuracy of analysts' error estimates.

In contrast, the literature provides evidence that FV accounting yields timely and relevant information (Ayres et al., 2017), as it more accurately captures the economic effects and management decisions. Indeed, it indicates the present value of expected cash flows (Šodan, 2019), enabling greater comparability between companies (Brînză & Bengescu, 2016) and enhancing the clarity and usefulness of financial information (Milburn, 2008). This may reduce the inaccuracy of analysts' earnings forecasts and allow them to relate this information to their earnings expectations and macroeconomic variables, thereby improving forecast accuracy (Ayres et al., 2017). Therefore, we propose the following hypothesis:

H1: Accounting information prepared under the FV model is associated with lower analyst errors when compared with information prepared under the cost model.

Institutional aspects and their impact on accounting information
Countries' legal origins substantially influence the interpretation of accounting information and its interaction with the capital market (Ball et al., 2000; Barniv et al., 2005; La Porta et al., 1998). This influence arises from substantial differences between these legal systems concerning investor protection, the quality of accounting information, disclosure incentives, and the ease of interpreting information.

The Common Law system has evolved to meet market demands (Ball et al., 2000) by enhancing legal protection for shareholders and strengthening governance

mechanisms (Barniv et al., 2005; Dayanandan, 2016). This evolution is primarily attributable to the presence of robust investor protection laws (La Porta et al., 1998) and higher-quality financial reporting (Ball et al., 2000; La Porta et al., 2000). In these countries, companies tend to disclose negative news more promptly (Dayanandan, 2016), which can increase market confidence and potentially reduce the intensity of analysts' forecast errors.

In contrast, the Civil Law system originated in the collective planning of the public sector, where government agencies establish rules and laws, exerting significant political influence on accounting practices (Ball et al., 2000). In this system, the government sets and regulates accounting standards primarily through trade unions and business associations, resulting in a stakeholder-oriented governance model (Ball et al., 2000). Consequently, there is less demand for information from external users, leading to lower quality financial reporting (Barniv et al., 2005). This stems from the fact that accounting in Civil Law countries mainly focuses on tax compliance, with companies motivated to make accounting choices primarily to minimize taxes (Prather-Kinsey et al., 2008). This differs significantly from the Common Law system, where companies have stronger incentives to disclose information to attract market investment.

Liao et al. (2020) found that FV estimates are more relevant in countries with a Common Law system, given that these countries have stricter regulations, highlighting that the legal system is a key factor influencing the relationship between FV and analysts' forecast inaccuracy.

Barniv et al. (2005) provide evidence that financial reports demonstrate higher informational quality in countries adhering to a Common Law tradition. This finding suggests that differences among legal systems may influence the level of confidence that users place in disclosed information. In such contexts, reduced information asymmetry likely decreases the uncertainty faced by financial analysts, thereby improving the accuracy of their earnings forecasts.

From the institutional perspective advanced by Ball et al. (2000), the properties of earnings — and, by extension, accounting measurement practices — are affected by the prevailing legal and institutional framework of each country. Within this view, the adoption and utility of FV measurement are not neutral; rather, they depend on the strength of enforcement mechanisms and the characteristics of the legal system. In countries with a Common Law tradition, where accounting practice is primarily aimed at meeting the informational needs of investors, FV measurement is expected to be more relevant to users, consistent with the arguments of Ball et al. (2000).

Thus, we propose the following hypothesis:

H2: Accounting information prepared using the FV model is more strongly associated with lower analyst errors within Common Law systems compared to Civil Law systems.

International Financial Reporting Standards (IFRS)

IFRS emerged with the objective of enhancing financial information through the harmonization of reports in order to meet the demands of the global market. This initiative was guided by principles similar to those underlying Anglo-Saxon accounting systems. The adoption of IFRS was expected to bring significant benefits to users of financial information, such as improved quality and efficiency, a reduction in the cost of capital, and enhanced comparability, among other advantages (Marsoem & Mita, 2019), in addition to making information more comprehensible and further increasing comparability across companies (Burnett et al., 2015; Marsoem & Mita, 2019). These benefits would enable information users to better understand the financial and economic realities of companies and facilitate performance comparisons across sectors and countries.

Studies such as Kim and Shi (2012), who examined the impact of voluntary IFRS adoption, found that the adoption of these standards increased the average amount of disclosed information by 59% and improved information quality. Similarly, Cai et al. (2014) observed that companies that had previously followed lower-quality local accounting standards benefited more from IFRS adoption due to reduced earnings management and increased transparency of financial data. Additionally, Barth et al. (2008) found that companies that adopted IFRS exhibited lower earnings management and greater earnings relevance, indicating an overall improvement in financial reporting quality.

Furthermore, the International Accounting Standards Board (IASB) has stated that its mission in developing IFRS was to enhance transparency, reduce information asymmetry, and contribute to economic efficiency by providing a reliable accounting framework (Jorissen, 2015). Although Ball et al. (2000) emphasized that high-quality accounting standards do not necessarily guarantee high-quality information, there remains a positive outlook on IFRS use. This is evidenced in the study by Harakeh et al. (2019), who examined the potential of IFRS to influence initial public offerings in the UK and France, finding that IFRS adoption

was associated with a reduction in earnings management. Clarkson et al. (2011) found that IFRS adoption improves the comparability of financial statements, as did Dayanandan et al. (2016), who demonstrated that IFRS adoption mitigates earnings smoothing and earnings management. These observations are in line with Marsoem and Mita (2019), who reported a positive impact of IFRS adoption on analysts' forecast accuracy. The authors noted that analysts' earnings forecasts are based on data disclosed by companies and that the reduction in forecast errors following IFRS adoption may indicate that the use of FV information resulting from the adoption of these international standards enhances the overall quality of financial information.

In this context, De George et al. (2016) argued that the adoption of more rigorous and transparent accounting standards enhances users' confidence in financial statements. Specifically, with regard to FV measurement, IFRS provide detailed guidelines for both measurement and disclosure, thereby contributing to the reduction of information asymmetry. By mitigating the uncertainties inherent in subjective accounting estimates, IFRS reinforce the relevance of FV information for analysts and investors. This view is consistent with Liao et al. (2020), who asserted that the adoption of IFRS strengthens the role of FV in improving the ability of financial statements to provide relevant information for performance evaluation and future earnings forecasts. Therefore, we propose the following hypothesis:

H3: The adoption of IFRS standards enhances the role of FV in mitigating inaccuracies in analysts' earnings forecasts.

Influence of legal systems and IFRS on the use of FV

The influence of legal systems on the implementation and interpretation of accounting standards in countries is widely recognized. In the Common Law system, the application of accounting concepts is intrinsically linked to market demands, whereas in the Civil Law system, standards are more influenced by government bodies (Clarkson et al., 2011). This suggests that institutional and legal characteristics can shape the understanding and use of accounting information.

In Civil Law countries, where legal protection is typically lower (La Porta et al., 1998) and the ability to accurately reflect a company's performance in financial statements is limited, political influence on accounting tends to be more pronounced, resulting in a lower demand for earnings information from the market (Barniv et al., 2005). Additionally, analysts' forecasts

tend to be less accurate in such environments (Barniv et al., 2005).

In contrast, in Common Law countries, investors are better protected (Barniv et al., 2005; La Porta et al., 1997, 1998), and financial reports tend to exhibit higher quality (Ball et al., 2000). Profit-related information plays a prominent role in corporate governance, heightening investors' demand for accurate and reliable disclosures (Barniv et al., 2005). Thus, the way Civil Law and Common Law countries interpret and apply IFRS may vary due to the distinct legal and cultural characteristics that shape their perspectives.

Considering the use of IFRS in Common Law countries, it is plausible that, as accounting standards in these systems are more related to market activities (Ball et al., 2000) and developed within frameworks that are more responsive to market demands (Oz & Yelkenci, 2018; Wang & Yu, 2019), IFRS adoption may not result in substantial incremental benefits compared to adoption in Civil Law countries. This is because, in Civil Law countries, accounting standards do not necessarily seek to meet the needs of the market, but rather function as mechanisms for profit distribution among stakeholders (Clarkson et al., 2011), and their stricter regulatory frameworks may, paradoxically, align more closely with the IFRS paradigm.

In addition, Civil Law countries tend to have creditors as the main users of accounting information, although they have access to private information (Bonito & Pais, 2018), and financial reporting is oriented toward compliance with tax regulations (Prather-Kinsey et al., 2008). This orientation can result in a lower demand for high-quality disclosures (Barniv et al., 2005; Dayanandan, 2016).

In this scenario, IFRS adoption can generate greater confidence in the information reported by companies in Civil Law countries (Burnett et al., 2015; Prather-Kinsey et al., 2008), as it allows for enhanced comparability of financial information, harmonization of accounting practices, and improved efficiency of financial reports. Thus, the use of IFRS in Civil Law countries can strengthen the relationship between FV measurement and analysts' forecast accuracy.

Turki et al. (2016) found that IFRS adoption in the European Union generated informational benefits related to earnings, but noted that the impact of these standards may depend on institutional and country-specific factors. Similarly, Marsoem and Mita (2019) observed that the impact of IFRS was greater in Civil Law countries with weaker enforcement than in Common Law countries. These findings indicate that the effects of IFRS adoption may vary according to a country's legal and regulatory environment.

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In this regard, Ahmed et al. (2012) emphasize that accounting quality tends to be higher in countries with stronger legal and regulatory enforcement, suggesting systematic differences in the effects of IFRS adoption based on the degree of regulatory enforcement. Supporting this perspective, Houqe et al. (2014) observed an improvement in analysts' forecasting ability following IFRS adoption, mainly due to the more pronounced effect of enhanced information quality in countries with lower levels of investor protection. This evidence supports the hypothesis that the marginal improvement in information quality is more significant for companies in Civil Law countries when adopting IFRS.

Similarly, Dayanandan et al. (2016) argue that the benefits of IFRS adoption are more prominent in Civil Law countries. They hypothesized that IFRS implementation would reduce earnings management in these countries, thereby enhancing the quality of financial information. Their findings partially supported this hypothesis, showing that while no significant reduction in earnings management was observed in Common Law countries — given their already robust investor protection mechanisms and extensive financial disclosure — in Civil Law countries IFRS adoption contributed to greater constraints on discretionary practices.

Consistent results were reported by Oz and Yelkenci (2018), who examined the influence of legal origins on earnings management in IFRS-adopting countries. Their evidence indicated that accrual-based earnings management is more constrained in Civil Law countries after the adoption of international standards.

These findings support the argument of Agana et al. (2023), who suggest that Common Law countries are inherently associated with higher accounting quality due to their institutional characteristics. Consequently, in Civil Law countries, the marginal improvements in information quality resulting from IFRS adoption are expected to be more substantial, as these countries originate from relatively weaker domestic standards and lower levels of investor protection compared to Common Law countries. Therefore, the following hypotheses were proposed:

H4: The adoption of IFRS standards in Common Law countries does not improve the accuracy of analysts' forecasts concerning the application of fair market value.

H5: The adoption of IFRS standards amplifies the adverse impact of FV on inaccuracies in analysts' forecasts in Civil Law countries.

METHODS
Database design and sample delimitation
The research database consists of an unbalanced panel with repeated measures, considering a total of 1,420 companies across 40 countries, whose information was collected for the period between 2011 and 2018. The number of countries used is in line with Isidro et al. (2020), who criticize studies that focus on a single country, given the multiplicity of factors that can influence the relationship between variables. In addition, Isidro et al. (2020) note that the results of studies reporting improvements in information quality following IFRS adoption may, in fact, coincide with other contemporaneous events, reflecting favorable market conditions at the time of implementation. For this reason, the study considers a time interval extending beyond the moment of adoption, which helps mitigate the potential bias highlighted by Isidro et al. (2020).

The quarterly data were collected from S&P Capital and Thomson Reuters. The selection of this time period was based on the availability of company data, since previous periods, especially before 2010, contained significant data gaps, particularly regarding the key variables for this research: estimated earnings per share (EPS) and FV. The final sample comprised 32,412 observations.

Variables presentation
The dependent variable of the research (*forecast_error*) measures the magnitude of analysts' earnings forecast errors, following the approach of García-Meca et al. (2005) and Coën et al. (2009), as presented in Equation (1):

$$forecast\_error = \left| \frac{EPS_{observed} - EPS_{predicted}}{EPS_{observed}} \right| \quad (1)$$

where $EPS_{observed}$ corresponds to earnings per share for the period andEPS$_{predicted}$ represents the earnings per share forecast based on the average consensus among analysts for the quarter.

Therefore, according to Equation (1), the objective of the forecast_error variable is to measure the absolute value of analysts' profit *forecast errors*, regardless of whether their forecasts are below or above the realized value of earnings per share in a given period.

The explanatory variables described in Table 1 were chosen to explain the behavior of the dependent variable.

Table 2 shows the univariate descriptive statistics and frequency tables for the research variables.

Table 1. Description and scientific basis of the explanatory variables used in the research.

Variable	Description	Examples of previous studies that used the variable
fv	Dichotomous variable, with a value of "Yes" when the company has assets and liabilities measured at FV, and "No" otherwise. This was moderated by IFRS (FV x IFRS), the legal system (FV x LS), and both (FV x IFRS x LS). The IFRS dummy takes a value of "Yes" if the country adopts IFRS and "No" otherwise. The legal system dummy is equal to "Yes" for Common Law countries and "No" for Civil Law countries.	Riedl and Serafeim (2011); Magnan et al. (2015); Ayres et al. (2017).
size	Company size, estimated by the Neperian logarithm of total assets.	García-Meca et al. (2005); Saito et al. (2008); Ayres et al. (2017); El Ghoul et al. (2023); Du et al. (2024).
loss	Loss in the period, with a value of "Yes" if the company has a loss, and "No" otherwise.	Coën et al. (2009); Caban-Garcia et al. (2020); El Ghoul et al. (2023).
profit	Profitability, estimated by the ratio of EBITDA to total assets.	García-Meca et al. (2005).
supr	Surprise, calculated as the ratio of profit variation between two periods to the profit in $t-1$.	Magnan et al. (2015); El Ghoul et al. (2023).
growth	Company growth, estimated by revenue changes between periods.	Galanti and Vaubourg (2017).
volat	Volatility, calculated as the ratio of the standard deviation of earnings from the past five quarters to the absolute value of the mean earnings.	Ayres et al. (2017); Caban-Garcia et al. (2020); El Ghoul et al. (2023).
lever	Leverage, calculated as the ratio of the book value of debt to equity.	Ayres et al. (2017); Caban-Garcia et al. (2020); El Ghoul et al. (2023); Du et al. (2024).
indeb	Indebtedness, estimated through the ratio of total liabilities to total assets.	Saito et al. (2008).
roa	Company performance variable, estimated by the ratio of net profit to total assets.	Du et al. (2024).
age	Company age, estimated as the difference between the year the company was founded and the observation period t.	Bradshaw et al. (2012).
sector	Dichotomous variable that takes a value of "Yes" if the company belongs to a regulated sector and "No" otherwise.	Malaquias and Lemes (2013).
gdp	Economic variable of gross domestic product (GDP), collected from the United Nations database. It corresponds to the GDP for the analyzed year.	

Note. Developed by the authors.

Table 2. Univariate descriptive statistics and frequency tables for the research variables, considering the entire dataset.

Variable	Min	1stQ	Median	3rdQ	Max	Mean	SD
forecast_error	0.000	0.034	0.087	0.196	4.055	0.176	0.268
size	1.299	3.171	3.859	5.963	13.904	4.838	2.392
profit	-0.383	0.022	0.033	0.047	0.597	0.037	0.026
surp	-9.843	-0.294	0.003	0.287	94.351	0.047	1.678
growth	-1.515	-0.045	0.015	0.073	1.988	0.012	0.159
volat	-1.883	-0.701	-0.425	-0.130	4.007	-0.385	0.470
lever	-29.790	0.109	0.397	0.766	14.697	0.527	0.768
indeb	0.000	0.388	0.536	0.657	1.924	0.523	0.199
roa	-0.229	0.008	0.016	0.026	2.461	0.019	0.025
age	0.000	26.000	46.000	89.000	409.000	61.105	46.728
gdp	8.244	12.254	12.313	12.392	13.313	12.133	0.559
Frequency tables							
fv Yes: 26,968 fv No: 5,444	ifrs Yes: 8,814 ifrs No: 23,598	sector Yes: 4,110 sector No: 28,302	loss Yes: 1,525 loss No: 30,887	ls Civil Law: 9,377 ls Common Law: 23,035			

Note. Developed by the authors.

Figure 1 shows the behavior of the variable of interest (*forecast_erro*r), stratified according to the legal system adopted by the countries in the sample.
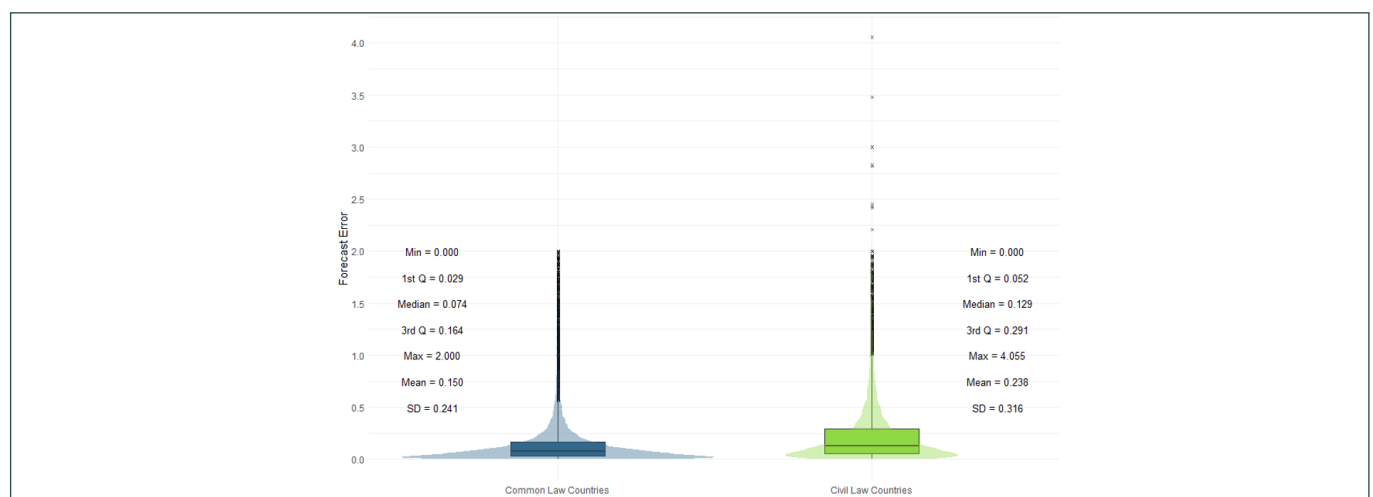
Source: Developed by the authors.

Figure 1. Behavior of the phenomenon studied depending on the legal system adopted by the countries in the study sample.

Figure 1 shows that, in the data considered, the magnitude of the phenomenon in Common Law countries is approximately half of that observed in Civil Law countries. It is also evident that, as shown in Figure 1, analysts' forecast errors are less dispersed in Common Law countries (SD = 0.241) than in Civil Law countries (SD = 0.316). Furthermore, the median value of the phenomenon in Common Law countries is almost half that observed for Civil Law countries, indicating that, preliminarily, analysts' forecast errors appear to occur more intensely in countries governed by the Civil Law legal system. Finally, the figure suggests a higher concentration of lower forecast errors in Common Law countries compared to Civil Law countries.

Multilevel perspective

Each company in the sample, depending on the country and moment in time, operates within a distinct institutional and contextual environment, as discussed by Courgeau (2003). Accordingly, each company in the study sample can be considered unique in its characteristics and trajectory and subject to various types of endogenous and exogenous variations over time (Molina-Azorín et al., 2020). The same applies to the 40 countries analyzed, which differ across economic, political, social, cultural, historical, geographical, and demographic dimensions (Headley & Plano Clark, 2020; Mathieu & Chen, 2011).

That said, we assume that the behavioral nature of the phenomenon under study, along with its longitudinal characteristics, necessitates a modeling approach capable of capturing heterogeneities at multiple levels, taking into account differences in countries' legal systems and IFRS adoption (Isidro et al., 2020).

Therefore, we chose to use multilevel hierarchical linear modeling, which is part of the generalized linear mixed model (GLMM) family. According to Rabe-Hesketh and Skrondal (2022), GLMMs are natural extensions of generalized linear models (GLMs) that enable the simultaneous modeling of fixed and random effects. One of the main differences is that while GLMs accommodate heterogeneity among individuals and groups (Courgeau, 2003) by combining fixed and random effects, GLMMs allow for the capture of variability between groups (such as countries and companies) and within individuals (such as repeated measures over time), following the framework illustrated in Figure 2.
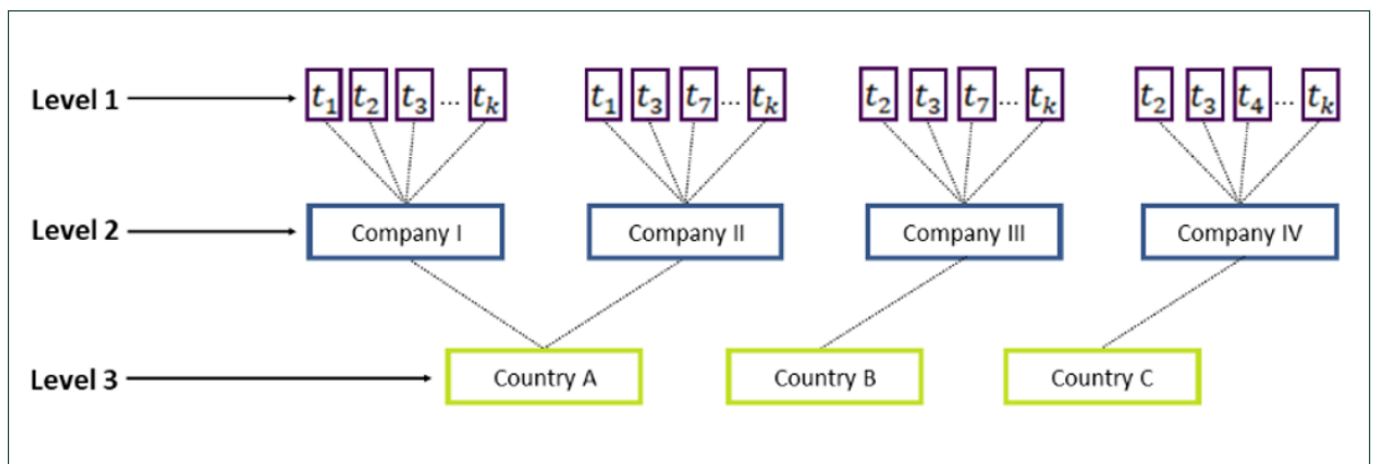
Source: Developed by the authors.

Figure 2. The nested structures postulated by the research within an unbalanced theoretical panel.

According to Figure 2, the first level of analysis represents the monitored temporal trajectory of each company, which, in turn, is nested within its respective country of origin. However, Figure 2 also shows that there are no cross-classifications in the nesting structures; that is, the temporality associated with a given company is fully nested within that specific company, and each company is assumed to have its headquarters in only one country, with no consideration of multiple country affiliations.

To consider the levels of analysis shown in Figure 2, the empirical modeling of the study can be mathematically described by Equations (2)–(5):

• Level 1:

$$Y_{ij} = \beta_{0j} + \beta_{1j}.X_{ij} + \varepsilon_{ij} \tag{2}$$

• Level 2:

$$\beta_{0j} = \gamma_{00} + \nu_{0j} \tag{3}$$

$$\beta_{1j} = \gamma_{10} + \nu_{1j} \tag{4}$$

$$\beta_{2j} = \gamma_{20} \tag{5}$$

where Y represents the phenomenon to be studied; i is the level 1 subscript, i.e., the time lapse; j is the level 2 subscript, i.e., the nesting of the time course of the individuals considered; β_{0j} and β_{1j} refer to the coefficients of the first level; γ_{00} and γ_{10} point to the coefficients of the second level; ε_{ij} refers to the level 1 error terms, where $\varepsilon \sim N(0, \sigma_{\varepsilon}^2)$; and ν_{0j} and ν_{1j} represent the random effects of level 2, assuming for these parameters, for each unit j, multivariate normality with mean equal to 0 and variance σ_{ν}^2 (it was decided at this point to abandon the notation Σ so that the reader could better grasp the calculation of the intraclass correlations [ICC] that will be presented below, and which depend on the separation of the variances of the error terms of the random intercepts, and the error terms of the random slopes).

From this follows a possible general model proposed by Equation (6).

$$Y_{ij} = \gamma_{00} + \gamma_{10}.X_{ij} + \nu_{0j} + \nu_{1j}.X_{ij} + \varepsilon_{ij} \quad (6)$$

The adoption of the GLMM also allows for the calculation of ICC, reflecting how much of the total variability can be attributed to the different hierarchical levels considered, as shown in Equation (7):

$$ICC = \frac{\sigma_{\nu 0j}^2 + \sigma_{\nu 1j}^2}{\sigma_{\nu 0j}^2 + \sigma_{\nu 1j}^2 + \sigma_{\varepsilon}^2} \quad (7)$$

where $\sigma_{\nu 0j}^2$ represents the variance in the error terms of the random intercepts of the estimation and $\sigma_{\nu 1j}^2$ indicates the variance in the error terms of the random slopes of the model.

Equation (7) produces values ranging from zero to one, making it possible to assess the proportion of lower-level variation that can be attributed to higher-level grouping (Bliese, 2000). In other words, the ICC allows for the measurement of how much of the total data variability is associated with both the companies included in the model and the countries considered in the analysis.

RESULTS

To demonstrate that accounting for levels and contexts is meaningful for the analysis, following Silvey (1970), we proposed a likelihood ratio (LR) test comparing two null models: one with fixed effects of the GLM type and another capturing mixed effects. The results are shown in Table 3.

Table 3. LR test results.

Estimation	$\mathcal{L}$	d.f.	$X^2_{LR\ test}$	sig. *LR Test*
GLMM	26.290	4	6,579.106	0.000
GLM	-3,263.262	2	d.f. 2	

Note. Developed by the authors.

According to the findings (Table 3), considering the levels chosen — time, companies, and countries — leads to superior GLMM estimation at the 1% significance level, with all other conditions held constant. Based on the results shown in Table 3, and to test the study's hypotheses, we proposed six estimations, which are described in Table 4.

Table 4. Research models and their purposes.

Estimation	Purpose	N
Model A	To calculate the effects of FV on the entire research dataset.	32,412
Model A1	To measure the effects of accounting by FV on data regarding Common Law countries.	23,035
Model A2	To assess the effects of FV accounting for data regarding Civil Law countries.	9,377
Model B	To calculate the effects of the interaction between FV accounting and IFRS adoption on the research database.	32,412
Model B1	To measure the effects arising from the interaction between accounting by FV and the adoption of IFRS for data regarding Common Law countries.	23,035
Model B2	To assess the effects arising from the interaction between accounting by FV and IFRS adoption for data on Civil Law countries.	9,377

Note. Developed by the authors.

Having described the purposes of the modeling, Table 5 presents the results. Table 5 shows the expected mean values, confidence intervals, and standard errors for the fixed-effects portion. For the random-effects portion, the variance values of each parameter are presented along with their standard errors.

Table 5. Research model results.

	Model A	Model A1	Model A2	Model B	Model B1	Model B2
fv	-0.019***	-0.013**	-0.030***			
	(0.005)	(0.006)	(0.011)			
fv_ifrs				-0.017*	0.047	-0.035***
				(0.009)	(0.029)	(0.011)
t	-0.001***	-0.001***	0.000	-0.001***	-0.001***	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
size	-0.041***	-0.072***	-0.028***	-0.043***	-0.074***	-0.029***
	(0.003)	(0.005)	(0.004)	(0.003)	(0.005)	(0.004)
loss	0.206***	0.156***	0.334***	0.206***	0.156***	0.334***
	(0.007)	(0.007)	(0.016)	(0.007)	(0.007)	(0.016)
profit	-2.074***	-1.926***	-2.340***	-2.073***	-1.929***	-2.335***
	(0.085)	(0.108)	(0.180)	(0.085)	(0.108)	(0.180)
surpr	-0.002***	-0.007***	-0.004***	-0.002***	-0.007***	-0.004***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
growth	-0.042***	-0.038***	-0.029	-0.042***	-0.038***	-0.029
	(0.008)	(0.009)	(0.018)	(0.008)	(0.009)	(0.018)
volat	0.032***	0.026***	0.046***	0.032***	0.026***	0.047***
	(0.002)	(0.002)	(0.005)	(0.002)	(0.002)	(0.005)
lever	0.000	-0.001	0.003	0.000	-0.001	0.003
	(0.003)	(0.004)	(0.004)	(0.003)	(0.004)	(0.004)
indeb	0.009	0.008	0.092***	0.007	0.007	0.097***
	(0.014)	(0.016)	(0.032)	(0.014)	(0.016)	(0.032)
roa	0.028	-0.035	0.110	0.028	-0.044	0.110
	(0.064)	(0.160)	(0.085)	(0.064)	(0.160)	(0.085)
age	0.000**	0.000	0.000	0.000**	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
sector	0.054***	0.071***	0.045**	0.055***	0.071***	0.046**
	(0.011)	(0.013)	(0.019)	(0.011)	(0.013)	(0.019)
gdp	0.008	-0.014	0.002	0.009	-0.021	0.004
	(0.010)	(0.019)	(0.012)	(0.010)	(0.019)	(0.012)
constant	0.534***	0.951***	0.449***	0.519***	1.016***	0.420***
	(0.120)	(0.218)	(0.142)	(0.122)	(0.217)	(0.144)
σ_v^2	0.014***	0.015***	0.011***	0.014***	0.015***	0.011***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
σ_o^2	0.006***	0.017**	0.002**	0.007***	0.015**	0.002**
	(0.002)	(0.009)	(0.001)	(0.002)	(0.008)	(0.001)
σ_ε^2	0.049***	0.038***	0.074***	0.049***	0.038***	0.074***
	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)	(0.001)
$ICC_{companies|countries}$	0.293	0.458	0.151	0.299	0.442	0.153
$ICC_{countries}$	0.093	0.245	0.024	0.101	0.224	0.027
Marginal R^2	0.199	0.193	0.158	0.210	0.187	0.158
Conditional R^2	0.434	0.562	0.285	0.446	0.547	0.287
LL	1,475.903 d.f. = 18	3,830.481 d.f. = 18	-1,474.916 d.f. = 18	1,471.812 d.f. = 18	3,830.622 d.f. = 18	-1,473.83 d.f. = 18
N	32,412	23,035	9,377	32,412	23,035	9,377

Note. Developed by the authors.

Table 6 shows the highest variance inflation factor (VIF) values, indicating that multicollinearity is unlikely to be a significant issue in the research models.

Table 6. VIF results.

Estimation	Variable with higher VIF	VIF Value
Model A	profit	1.339
Model A1	roa	2.182
Model A2	size	1.363
Model B	profit	1.340
Model B1	roa	2.183
Model B2	size	1.352

Note. Developed by the authors.

Finally, Figures 3 and 4 present the values of $\mathbf{o}_{oj}$, that is, the adjustments related to the inclusion of the third level in the study's estimations within the country context. The values for $\mathbf{v}_{oj}$, representing the company context (the second level of the analysis) are provided via the link https://rpubs.com/researchpaper/manuscript, given that the study considers 1,420 companies, making it impractical to display them directly in this article.
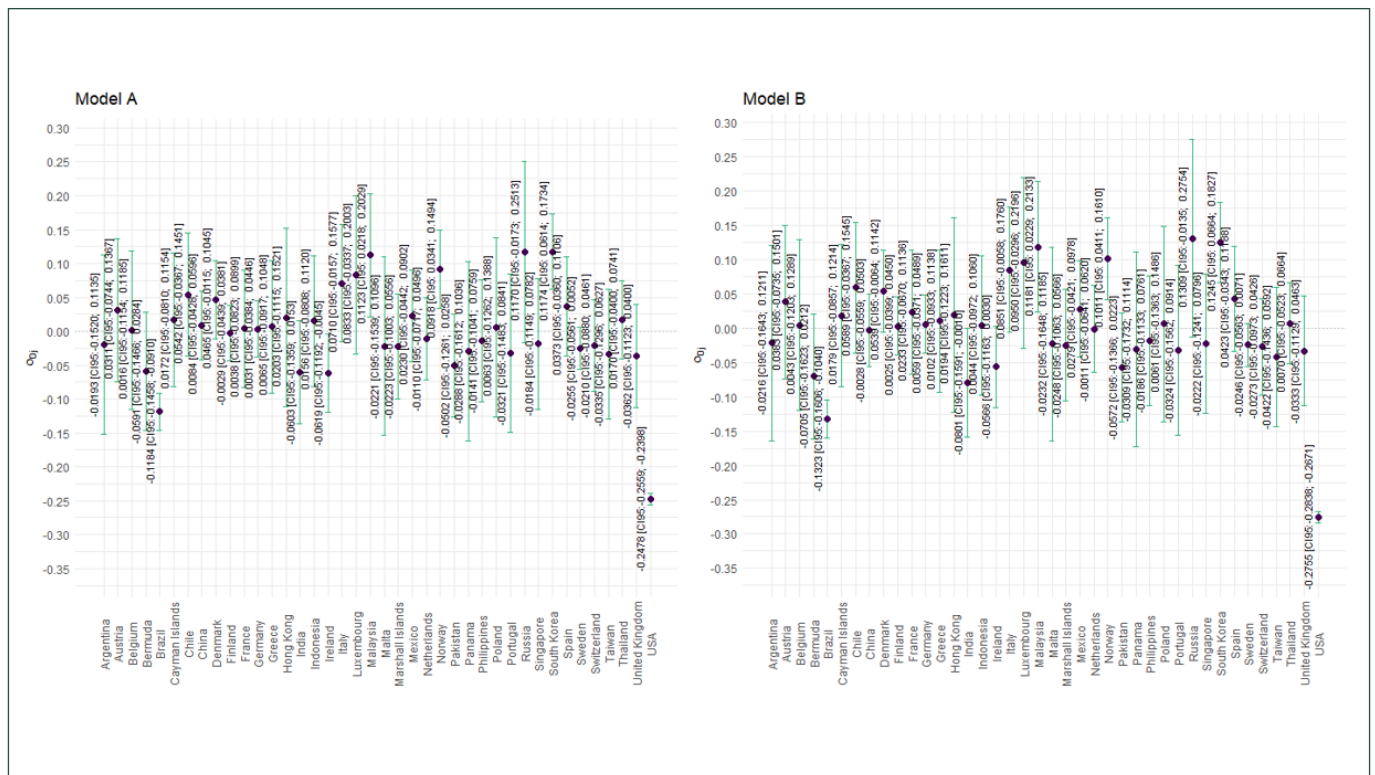
Source: Developed by the authors.

Figure 3. Random effects calculated for models A and B.
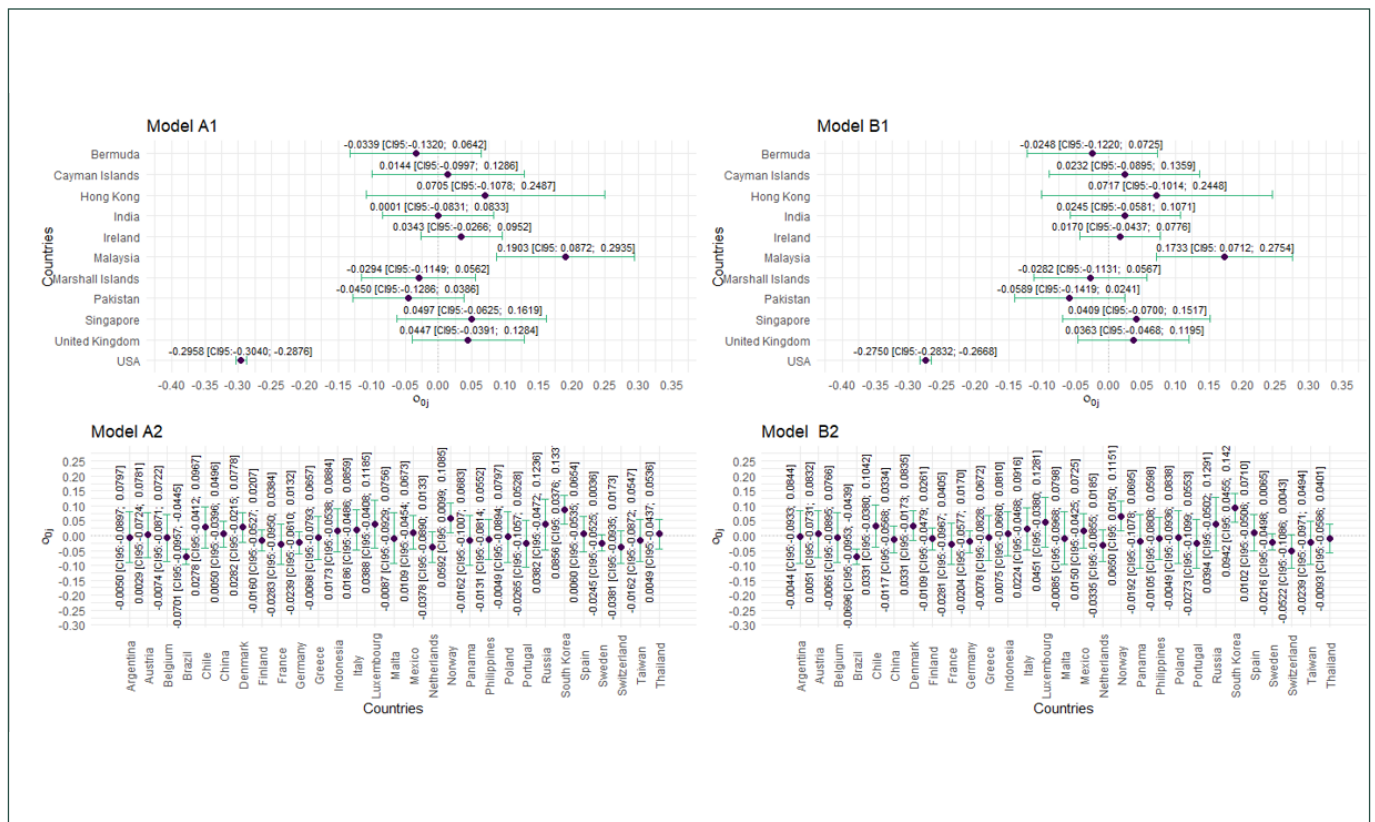
Source: Developed by the authors.

Figure 4. Random effects calculated for the subanalyses of models A and B, i.e., estimations A1, A2, B1, and B2.

DISCUSSION

Overall, the paper's results suggest that the use of FV is associated with greater analyst forecast accuracy (Model A), supporting Hypothesis 1. Although this relationship holds in separate samples for Common Law and Civil Law systems, the strongest effect was observed in Civil Law countries (Models A1 and A2), leading to the rejection of Hypothesis 2. The adoption of IFRS reinforces the role of FV in mitigating inaccuracies in analysts' earnings forecasts (Model B), supporting Hypothesis 3. Finally, we find that the adoption of IFRS standards in Common Law countries does not improve the accuracy of analysts' forecasts regarding the application of fair market value, but amplifies the adverse impact of FV on analysts' forecast inaccuracies in Civil Law countries (Models B1 and B2), supporting Hypotheses 4 and 5.

On the use of FV

According to Table 5, the results suggest that, whether considering the full sample (Model A) or sub-analyzing countries based on their legal systems (Models A1 and A2) — that is, Common Law or Civil Law — the variable *FV* exhibits a negative relationship with analysts' forecast errors and is statistically significant at the 1% level, *ceteris paribus*. In other words, our results suggest that the adoption of FV accounting tends to reduce forecast errors (i.e., the forecast_error variable) on average, holding all other conditions constant, by a total of 0.019 [CI95: −0.029; −0.008]. This result supports Hypothesis H1 of our research.

Our findings are consistent with the results of Ayres et al. (2017); in other words, FV appears to enhance analysts' ability to produce more accurate earnings forecasts. In contrast, it is important to mention that our results appear to contradict the findings of Riedl and Serafeim (2011).

We hypothesize that these discrepancies may be attributed to differences in sample compositions, methodological approaches based on distinct mathematical and statistical assumptions, and varying observation periods in prior studies.

For example, Riedl and Serafeim (2011) restricted their analysis to companies in the U.S. financial sector during 2007 and 2008, a period marked by financial instability and significant regulatory changes, which may have influenced the quality of accounting information. Similarly, Magnan et al. (2015) examined a period encompassing the 2008 financial crisis and the adaptation to SFAS 157, which may have affected the reliability of FV information. Ding et al. (2017) observed a positive impact of FV on the studied phenomenon in China during 2004–2007, a period characterized by economic insta-

bility and substantial cultural and institutional differences compared with other countries.

According to Table 5, when comparing the differences in the use of FV between Common Law countries (Model A1) and Civil Law countries (Model A2), as already mentioned, the negative and statistically significant relationship persists in both cases.

These results are consistent with prior studies that argue that in Common Law countries, jurisprudence and stronger legal protection tend to increase users' confidence in the information disclosed by companies (Ball et al., 2000; Dayanandan, 2016; La Porta et al., 1998; Liao et al., 2020). A more detailed examination of the relationship between FV, IFRS, and the legal system, taking into account the specific characteristics of each country, may provide additional insights into these results. For example, Liao et al. (2020) concluded that FV estimates were more relevant in Common Law countries due to greater investor protection and law enforcement. Similar results were reported by Barniv et al. (2005), indicating higher financial reporting quality in Common Law countries. These differences in legal systems may therefore influence users' confidence in the disclosed information.

However, in the case of Common Law countries (Model A1), the impact of FV accounting is, on average, lower (−0.013 [CI95: −0.025; −0.002]) compared to the same situation in Civil Law (Model A2) countries (−0.030 [CI95: −0.052; −0.009]), ceteris paribus. This result contradicts Hypothesis 2.

We propose that in Common Law countries, it is typical to observe a highly developed capital market with strong indicators of corporate governance, control of corruption, regulatory quality, and government effectiveness (Antonczyk & Salzmann, 2014). Moreover, in these environments, both judicial decisions and regulatory interpretations within their legal systems are more flexible, fostering the dynamism of accounting practices, which usually tend to reflect changes in the markets more quickly (Januarsi & Yeh, 2022). As such, the use of FV seems to be better received in these countries, given that they are generally more transparent and better aligned with market expectations, which may result in fewer forecasting errors.

In contrast, in Civil Law countries, the transition to accounting practices that consider FV may be more difficult due to less mature markets, more codified laws, and less flexible legal and judicial interpretations than in Common Law countries (Ferdous et al., 2024). In other words, the use of FV may encounter greater difficulties in Civil Law jurisdictions due to legal and judicial conservatism, which tends to result in accounting conservatism.

Other relevant data for this discussion, from Table 5, concerns the calculated ICC, which is significantly higher in Common Law countries than in Civil Law countries. This result suggests a greater behavioral similarity among companies and across countries within a Common Law system in light of the phenomenon studied, reinforcing the idea of both greater experience in the use of FV and higher dynamism and maturity of the financial markets considered.

The proposition of similarity considered above is also supported by the higher values of the conditional R^2 statistic calculated for Common Law countries. In other words, our models capture a larger proportion of the variation in profit forecast errors in Common Law countries compared with Civil Law countries.

All of the above suggests that the legal system exerts a significant influence on the relationship between fair value and analysts' forecast errors. However, the most pronounced effect occurred in Civil Law countries of origin. One possible explanation for this is that the sample of Models A1 and A2 does not consider the adoption of IFRS, a factor that may help understand the effect of using fair value in Civil Law countries, as will be corroborated in the analyses of Models B, B2, and B3, discussed in the next section.

On the concurrent use of FV and IFRS

According to Table 5, when considering the interactions between the variables *fv* and *ifrs* and analyzing the entire dataset (Model B), our results suggest a negative and statistically significant relationship at the 10% level with analysts' forecast errors, holding all other factors constant. Therefore, in general, the joint use of FV and IFRS appears to be associated with a reduction in analysts' forecast errors by 0.017 [CI90: −0.032; −0.002] on average, *ceteris paribus*.

Although this result appears to support H3, some caveats must be considered, as discussed below. When we further analyze countries with different legal systems (Models B1 and B2), according to Table 5, our results suggest that Common Law countries (Model B1) do not appear to benefit from IFRS adoption when applying FV, as the coefficient of the variable *fv_ifrs* was not statistically different from zero, holding all other factors constant.

On the other hand, Civil Law countries (Model B2), according to the results in Table 5, appear to benefit from IFRS adoption when applying FV, as this combination reduces analysts' forecast errors by 0.035 on average [CI95: −0.058; −0.013], *ceteris paribus*.

This should not, however, be interpreted to mean that IFRS has no purpose in reducing analysts' forecast errors in Common Law countries. We theorize that the

lack of statistical significance of the parameter observed for Common Law countries is related to the widespread use of FV and IFRS and, as such, the multiplicative effect intrinsic to the *fv_ifrs* variable does not have such an additional impact on analysts' forecast errors. Moreover, we consider the maturity of financial markets in these countries, which is associated with greater transparency and fewer information gaps between companies and analysts. These factors may lead to a reduction in uncertainty, resulting in an interaction between FV and IFRS that is close to neutral, which could help explain the lack of statistical significance of the *fv_ifrs* variable in Model B1.

Thus, it can be said that Common Law countries prioritize compliance with case law over rigid rules and have evolved to meet market needs (Ball et al., 2000). This provides an additional incentive for the development of more effective corporate governance mechanisms, stronger investor protection, and higher-quality financial reporting (Barniv et al., 2005; Dayanandan, 2016). Familiarity with case law and normative analysis, rather than strict rules, can better prepare financial analysts to deal with the interpretative nature of FV and enhance the accuracy of their earnings forecasts. This is because Common Law countries offer greater legal protection to creditors and shareholders (La Porta et al., 1998), which may explain why the use of IFRS in these countries does not generate additional benefits for analysts.

In our view, it should also be borne in mind that the relationship between fair value, IFRS, and the legal system can vary significantly depending on the specific characteristics of each country, such as economic, institutional, and cultural differences (Tyrrall et al., 2007). Therefore, it is plausible that these discrepancies in accounting systems reflect different accounting needs across nations, thereby limiting the benefits of IFRS. Consequently, H4 of our research is confirmed, indicating that, in addition to the use of IFRS in Common Law countries not being a factor that exacerbates analysts' forecast errors regarding FV, this interaction also does not appear to enhance the phenomenon under study.

In the case of Civil Law countries, Model B2 (Table 5) indicates that IFRS adoption amplifies the negative effect of FV on analysts' forecast errors, thereby confirming H5.

Comparing Models A2 and B2, the interaction between FV and IFRS in Civil Law countries shows a slightly stronger negative effect, indicating that, for these countries, IFRS implementation may enhance the quality of financial reporting (Dayanandan, 2016). However, when comparing the magnitudes of the marginal effects generated by the interactions between FV and IFRS in Civil

Law countries (Model B2) and Common Law countries (Model B1), it appears that the combination of these variables may increase the complexity of analysts' forecasts. This complexity may result from the aforementioned behavioral heterogeneity of companies and countries, lower financial market transparency, greater regulatory rigidity, and resistance to FV adoption, which could also create uncertainty regarding analysts' familiarity with IFRS.

Furthermore, the ICC values and the conditional R² statistic for Models B1 and B2 (Table 5) continue to suggest lower behavioral heterogeneity among the companies and countries studied under the Common Law system.

Civil Law countries generally have lower legal protection and information quality due to reduced market demand for information (Lindahl et al., 2024). However, IFRS adoption can provide benefits, such as increased transparency, comparability, and clarity, thereby improving information quality and increasing confidence in financial reports. Previous studies have also reported improvements in accounting information quality following IFRS adoption, mainly in Civil Law countries. Tan et al. (2011) observed that IFRS adoption attracted a greater number of analysts due to improvements in accounting information quality. Clarkson et al. (2011) and Dayanandan et al. (2016) reported enhanced comparability of financial reports following IFRS adoption.

In summary, this study shows that FV negatively affects the inaccuracy of earnings forecasts and constitutes relevant information for financial analysts. It also emphasizes the importance of IFRS adoption, particularly in Civil Law countries, for improving accounting information quality. Furthermore, it highlights that differences in legal and regulatory systems influence analysts' interpretation of accounting information, thereby affecting the accuracy of their forecasts. These results contribute to the literature on FV, IFRS, and legal systems, underscoring the significance of these factors in the relationship between fair value and analysts' forecast errors. The inclusion of FV in financial statements is an important practice for companies, allowing for more precise measurement of assets and liabilities. The analysis of the results showed that FV adoption positively impacts the accuracy of financial analysts' earnings forecasts, which can be attributed to greater precision in the valuation of companies' assets and liabilities.

Considerations on the capture of random effects in the study models

To the best of our knowledge, the use of modeling that considers random effects is relatively uncommon when analysts study profit forecasts.

Although the Multilevel Perspective section and the Supplementary Material explored aspects of multilevel modelling, we deem it necessary to discuss the impacts of interpretations regarding the random effects of our modeling, which were presented mainly by Figures 3 and 4 and the appendix found on the website https://rpubs.com/researchpaper/manuscript.

It should be noted that the terms $\nu_0^{i,j}$ and $o_{0,0,j}$ in Equation (6) refer, respectively, to adjustments in the models presented in Table 5 resulting from the effects associated with the companies and countries included in the study. As mentioned, the website https://rpubs.com/researchpaper/manuscript shows the results of these adjustments in relation to the effect generated by a given company; Figures 3 and 4 illustrate the effect of a given country.

In other words, if one wants to analyze the profit forecast for a specific company located in a predetermined country — provided it is included in the research database — one has to consider the calculated value of the random effects for that company (term $\nu_{0,i,j}$) in a given country (term $o_{0,0,j}$) using Equation (6).

Random-effects models appear to capture latent idiosyncrasies in the dataset more effectively. Although the results suggest that the adoption of FV and its interactions with IFRS exert a greater impact in Civil Law countries than in Common Law countries, this reflects a general trend and not an absolute truth. Common Law countries, often associated with more mature markets and more flexible legal, judicial, and accounting systems, do not always conform to this pattern. Similarly, the same reasoning applies to Civil Law countries, indicating that conclusions must be contextualized for each specific case.

A clear example is the comparison of the random country effects calculated for Malaysia and the USA, as shown in Figure 4. Both countries are Common Law countries, but considering the country effect, being located in Malaysia contributes to a smaller reduction in analysts' forecast errors, whereas the country effect for companies based in the USA appears to mitigate the phenomenon studied more strongly.

Figure 4 also suggests that the country effect for companies located in Belgium, which is a Civil Law country, has a greater capacity to reduce analysts' forecast errors compared to most Common Law countries.

Based on the above, it should be borne in mind that, although multilevel estimations are suitable for estimating a phenomenon that occurs heterogeneously in relation to the nestings considered, they capture latent variations between these levels, as proposed in Figure 2. These latent variations, which are probably variables not considered in the modeling, appear to influence

the profit forecast error differently depending on the context, whether due to the company observed or the country analyzed. At the corporate level, we hypothesize that these differences between the calculated random effects stem from factors inherent to the sectors analyzed, as well as factors related to the governance of the organizations studied. At the national level, we hypothesize that the structural, economic, regulatory, and cultural factors in the countries in the dataset affect analysts' behavior and market dynamics.

Accordingly, we consider this finding on the contextual heterogeneity of the models crucial for further research on the prediction of analysts' errors involving comparisons across different companies and countries. It is important not to assume as an absolute truth that every Common Law or Civil Law country will necessarily benefit more or less from the use of FV (or its interactions with IFRS) without considering intrinsic factors related to business, market, legal, judicial, and governmental environments.

FINAL CONSIDERATIONS

Our study aimed to analyze the impact of the use of FV on analysts' profit forecasts, taking into account idiosyncratic differences in the influence of legal systems (Common Law and Civil Law) across 40 countries.

Given the obvious heterogeneity in the database, we employed linear mixed models that captured not only the fixed effects but also the random effects arising from temporal variations and differences among companies, while considering the countries in which these companies are based.

Theoretical implications

Our results, shown in Table 5, indicate that the use of FV in financial statements exhibits a negative and statistically significant relationship with analysts' profit forecast errors, *ceteris paribus*. In other words, as a general rule, FV mitigates the phenomenon under study. Overall, our results suggest that the impact of FV adoption appears to be more pronounced in Civil Law countries (−0.030 [CI95: −0.052; −0.009]) than in Common Law countries (−0.013 [CI95: −0.025; −0.002]), holding all other conditions constant.

The results of Table 5 also suggest that the combined use of IFRS with FV enhances the reduction of the phenomenon studied in countries adopting the Civil Law legal system. However, no statistically significant impact was observed in Common Law countries. This seems to indicate that, in Common Law countries, the effect of the relationship between the phenomenon studied and the interactions between FV and IFRS is mitigated by other factors, such as the greater maturity of finan-

cial markets and the higher transparency and flexibility of these legal systems, which, in turn, affect analysts' familiarity with and confidence in accounting practices inherent in FV and IFRS.

As such, our estimates also show that the differences between the legal systems of the countries analyzed — which influence the regulation and quality of financial information — emerge as a factor worthy of attention in understanding how FV and IFRS affect earnings forecasts.

When analyzing Common Law countries from the point of view of analysts' earnings forecast errors, less heterogeneous behavior was observed among the companies and countries in this group (see the $ICC_{companies|countries}$ statistics in Table 5), indicating that legal systems appear to influence the regulation and quality of financial information, thereby becoming a relevant factor in understanding earnings forecasts. The lower heterogeneity can be interpreted as greater confidence among analysts in the accounting information provided by companies.

According to Table 5, it also seems true that the Common Law countries in the sample, with respect to analysts' errors in earnings forecasts, are generally less heterogeneous compared to the Civil Law countries in our dataset (see the $ICC_{countries}$ statistics in Table 5). In fact, Models A1 and B1 exhibit higher conditional R^2 statistics than the other estimations, indicating that the algorithms used were better able to capture variations in the data for this stratum of countries when considered individually. These findings suggest that the study of this phenomenon in Civil Law countries warrants further investigation to identify additional variables that may explain the behavior of analysts' earnings forecast errors beyond those already discussed in the study.

Methodological implications

The use of estimates that capture random effects is recommended when data exhibit heterogeneities arising from different contexts, even though such methods do not yet appear to be widely applied in the literature on analysts' earnings forecasts, particularly in studies involving comparisons across diverse contexts.

These different contexts do not necessarily refer only to the apparent notion of distinct companies belonging to different sectors across various countries. The temporal trajectory of an entity constitutes a context in itself. Philosophically speaking, "no man can bathe twice in the same river, for the second time the river is no longer the same, nor is the man" (Heraclitus of Ephesus). Pragmatically, when analyzing the temporal course of an organization operating in a dynamic environment such as the global market, it seems overly rigid to as-

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sume that a given company today behaves in the same manner as it did two, three, or five years ago.

When this idea is combined with the dynamism and complexity of other contexts that sometimes overlap (e.g., the consideration of competition or competitors interacting depending on the countries they are in), which are also affected by time, the use of single-equation modelling becomes overly limited, in our view.

Our estimations highlighted the heterogeneity of the analytical contexts for companies and countries. The random effects calculated suggest that although Common Law countries are often considered places with mature markets and less rigid legislative and legal systems, it cannot be generalized that the adoption of FV and IFRS yields uniform benefits, even among countries within the same stratum.

According to Figures 3 and 4, the country effect — not necessarily the legal system (Common or Civil Law) — may provide a greater reduction in forecast errors, as exemplified by the USA, Malaysia, and Belgium.

As such, we emphasize that the use of FV and IFRS is subject to latent contextual influences that extend beyond merely observing differences between legal systems. At the corporate level, factors such as the type of governance adopted and the sector in which the organization operates may modulate the impact of these accounting practices. At the country level, economic, cultural, and regulatory characteristics may influence — positively or negatively — the effectiveness of FV and IFRS in mitigating analysts' earnings forecast errors.

Managerial implications

By adopting a methodological approach that is both novel and distinct from commonly used methods, incorporating a data sample spanning multiple countries and an extended analysis period, this research broadens the scope of the discussion and provides a more robust basis for generalizing the results. This enables the consideration of intra- and inter-country variations, which are crucial for consolidating knowledge about the relationship between FV and analysts' forecasts, given the diversity of characteristics among countries, including the stage of financial market development, economic variables, and data quality.

In addition, by incorporating the analysis of legal systems and IFRS adoption, we provide valuable insights for both analysts and regulatory authorities, particularly in countries that adopt the Civil Law system. The results indicate that IFRS use in Civil Law countries encourages the interpretation of discretionary accounting standards, which can positively impact the development of capital markets. Consequently, this contributes to economic growth by influencing the effective functioning

of the market and the efficient allocation of financial resources.

We also believe that this study offers important information to investors. When considering investments in companies that apply FV, it is advisable to take into account the legal system of the company's home country and the adoption of IFRS. These factors may signal greater reliability of analysts' forecasts when using FV-based accounting information. Consequently, investors can improve the efficiency of their investment decisions and the allocation of capital.

By extending the analysis of the relationship between FV and analysts' accuracy across different legal systems, this study investigates whether legal context influences how FV affects analysts' forecast precision. As a result, the study highlights for analysts the importance of considering the legal system of the company's country of origin, which can affect the use of IFRS and FV, necessitating a more careful approach to forecasting and calibrating their estimates.

Research limitations and suggestions for future studies

One of the main limitations of this study concerns the time frame considered (2011 to 2018), which prevents the capture of economic or regulatory changes occurring after this period. In addition, the sample of 40 countries limits the generalizability of the results to regions not included in the study. In this regard, Table 5 presents the calculated fixed effects, which could facilitate potential comparisons with locations not included in the sample.

Another point to note is that this research does not address the specificities of accounting system implementation or adaptation in each country considered, which could provide a more accurate understanding of the factors that influence the effectiveness of FV and IFRS. A related limitation is the omission of certain exogenous factors, such as investor behavior in the studied companies or the quality of organizational strategy and management. Similar considerations apply to cultural and institutional factors, both at the entity and country levels.

We suggest that future studies consider an extended time frame to capture changes resulting from the COVID-19 pandemic, as well as other national regulatory developments. We also suggest that analyses of FV and IFRS adoption be conducted in a manner that examines differences within regions of the same country, rather than assuming homogeneous adoption across a given country. Finally, we encourage the incorporation of variables that explore sectoral, cultural, and institutional factors, while simultaneously promoting the use

of new functional forms of modeling to analyze the phenomenon under study. Additionally, future research could examine analysts' earnings forecasts at the individual level. This approach would enable the incorporation of specific control variables — such as experience, specialization, and historical accuracy (He, Li et al., 2025; He, Sun et al., 2024) — thereby enhancing the robustness of the findings and broadening the contributions of this line of inquiry.

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