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IFRS 17 implementation: market participants' perspective

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Abstract

Purpose – The article aims to present the main challenges and characteristics of adopting the International Financial Reporting Standard (IFRS) 17 within insurance undertakings.
Design/methodology/approach – We examined a comprehensive analysis of the problems associated with IFRS 17 implementation, as observed by 68 market participants, including experts, practitioners, researchers and tutors.
Findings – The investigation reveals that the annual cohort, treatment of onerous contracts, the two methods used for the calculation of discount rates and the issues surrounding the premium allocation approach represent the most significant challenges faced in the IFRS 17 adoption. Moreover, some problems lose relevance with time and the type of challenge reported depends on the opinion setter's profession.
Practical implications – The findings provide insurance companies valuable insights into the key challenges of implementing the IFRS. Furthermore, research shows how regulatory bodies should adapt their guidance and training to assist insurance companies in IFRS implementation.
Originality/value – The study's originality lies in the comprehensive analysis of the challenges associated with implementing IFRS 17 in the insurance industry. By integrating institutional theory as a conceptual lens, this study identified key implementation challenges and also explored how these challenges evolve and vary based on the market participants' perspectives. This multi-dimensional approach to understanding the dynamics of IFRS implementation provides unique insights that contribute to the existing body of knowledge in accounting research.

Keywords IFRS 17, Accounting, Insurance companies, Financial reporting, Annual cohorts
Paper type Research paper

Introduction

Nearly 500 insurance companies in Europe have already adopted the International Financial Reporting Standards (IFRS). Moreover, the International Accounting Standards Board (IASB) obligates them to introduce the new IFRS 17 *Insurance Contracts* issued in May 2017. This standard replaces IFRS 4 and is effective for annual reporting periods beginning on or after January 1, 2023 (IFRS 17, 2021). The aim of IFRS 17 is to standardize insurance accounting globally to improve comparability, increase transparency, and provide account users with the

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Code availability: The codes supporting this study's findings are available from the corresponding author upon reasonable request.

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information they need to meaningfully understand the insurer's financial position, performance, and risk exposure.

IFRS 17 establishes a comprehensive standard for identifying, recognizing, measuring, presenting, and disclosing insurance contracts in financial statements. An insurance contract is a contract under which one party (the issuer) accepts significant insurance risk from another party (the policyholder) by agreeing to compensate the policyholder if a specified uncertain future event (the insured event) adversely affects the policyholder (IFRS 17, 2021). Even though the content of the standard has been available for review for five years, insurance companies still express concerns about the implementation of the new standard despite the many studies and interpretations provided. These companies report a significant impact of IFRS 17 implementation in 2023 on reports.

Due to the crucial role of insurance companies in the economy and the extent of the insurance sector affected by the implementation of IFRS 17, several scholars have examined this standard further. However, most research has focused on specific issues related to the IFRS 17 implementation and has neglected to analyze the general experiences companies face (Hannibal, 2018; Guillot & Abadlia, 2020; Palmborg, Lindholm, & Lindskog, 2021; Yousuf *et al.*, 2021; Signorelli, Campani, & Neves, 2022). To address this research gap, we aim to present the significant challenges encountered during the adoption process of IFRS 17 within insurance undertaking noticed by market participants. The literature indicates that introducing IFRS can bring challenges with first-time implementation, such as loss and profit recognition (Palmborg *et al.*, 2021; De Nichilo, 2022).

After exploring these issues related to the implementation of IFRS 17, we decided to test if these outcomes depended on specific circumstances. First, in line with institutional theory, we expect some of the issues related to the implementation of IFRS 17 to lose significance over time, as the theory suggests that problems encountered with the implementation of regulation might change over time due to the dynamic nature of institutions (Pierson, 2000; Dacin, Goodstein, & Scott, 2002). Second, institutional theory suggests that different stakeholders, such as experts, practitioners, researchers, and tutors, might be subject to distinct institutional pressures and expectations based on their roles, education, and positions within the institutional field (Kumar, Boesso, Batra, & Yao, 2019). For example, regulatory authorities pressure practitioners to comply with IFRS 17 standards, while academic researchers might face pressure to contribute knowledge and insights to the field. Moreover, key actors, such as regulators, accounting professionals, or organizational leaders serve as institutional entrepreneurs, driving or resisting the IFRS adoption. Their success depends on mobilizing allies, leveraging resources, and reconciling conflicting logics to build a consensus (Guerreiro, Lima Rodrigues, & Craig, 2021). Moreover, previous research confirms that the type of opinion setter present might significantly influence the formation of an opinion (Chan & Misra, 1990; Shoham & Ruvio, 2008). Changes in the regulatory framework brought some improvement to corporate financial reporting practices such as the timing of corporate filings of audited financial reports. However, the implementation process is laden with conflicts and power struggles among institutional actors (Osinubi, 2020). Therefore, conflicts between the practitioners' roles might challenge IFRS 17 implementation.

To present the most urgent concerns related to implementing IFRS 17, we collected opinions from 68 market participants. We began with the assumption that market participants are contributors such as experts, practitioners, researchers, and tutors who deal with topics related to the insurance sector and IFRS 17 implementation. Market participants' opinions enabled us to identify the main challenges when implementing IFRS 17. We ran the regression to find the relationships between the type of opinion setter, time passage since opinion publication, and issue reported.

Our investigation shows that market participants perceive annual cohorts as the most significant challenge for insurance companies when implementing IFRS 17. Moreover, we also identified the treatment of onerous contracts, two different methods for the calculation of discount rates, the premium allocation approach (PAA), first-time implementation, risk adjustment for non-financial risk, changes in information technology (IT) systems, and interaction between IFRS 9 and IFRS 17 as elements that present challenges. In addition, the

analysis of the reported problems over time confirms institutional theory. In line with institutional change, we noticed that some problems lose relevance as time passes. These issues relate to annual cohorts, treatment of onerous contracts, different methods for the calculation of discount rates, changes in information IT systems, and interaction between IFRS 9 and IFRS 17. Moreover, our analysis indicates that the relevance of the reported problems depends on the profession of the person whose opinion was analyzed. This insight contributes to understanding how institutional dynamics shape IFRS implementation issues.

The research findings might be helpful for insurance companies, both those who have already implemented the standard and those who are just planning to implement IFRS 17. Identifying key challenges and their evolving significance informs decision-making and strategic planning efforts to address implementation effectively. Moreover, our findings might be helpful for regulators, as they reveal issues regarding the implementation of new accounting standards. Moreover, by understanding the challenges identified by this study, regulators can refine and improve existing policies to better achieve their intended objectives in setting financial reporting standards in the future (Alhawtmeh, 2023).

This study contributes to this growing body of literature by systematically analyzing the primary challenges encountered when implementing IFRS 17. Building upon insights from the previous works of De Nichilo (2022), Yousuf *et al.* (2021), and Thérond and Froment (2020), our research identifies and prioritizes key implementation challenges such as the treatment of onerous contracts, the calculation of discount rates, and the complexities surrounding annual cohorts. Furthermore, we conducted a temporal analysis to assess how the significance of these challenges evolves, reflecting the adaptive responses of market participants and regulatory adjustments. Moreover, we delved into the dynamics of market responses and regulatory actions, drawing parallels with findings from Arce, Giner, and Taleb (2023) and Pucci, Lupatelli, and Vaccarezza (2023) on the role of regulatory frameworks in mitigating implementation difficulties. Moreover, we offer recommendations for future research, notably exploring the comparative impact of simplified approaches like the PAA versus the General Model in achieving financial statement comparability under IFRS 17.

Moreover, accounting research plays a crucial role in shaping the international discourse on accounting standards and practices; therefore, the results of our study are also relevant to auditors and accountants. Our analysis shows that 30% of those who report problems with the implementation of the new standard are auditors and accountants. Research findings contribute to auditors' and accountants' ongoing professional development by informing them about emerging financial reporting standards issues. Furthermore, since IFRS 17 also applies to estimating future cash flows, actuaries can benefit from our results.

The remainder of the article is organized as follows. The next section will present the literature review. In Section 3, we will explain the institutional theory. Section 4 will describe the research methodology. In Section 5, we will present the research results. The last section will conclude the article.

Literature review

Issues related to the IFRS 17 implementation

The adoption of IFRS 17 has recently gained traction across diverse research domains (Nurunnabi, 2018; De Nichilo, 2022; Alhawtmeh, 2023; Andrioaia & Grosu, 2023; Ansong, 2024). However, the implementation of IFRS constitutes a complex process with several recurring issues reported in previous research. The process is seen as costly, complex, and burdensome, with concerns about increased volatility in the financial results (Jermakowicz & Gornik-Tomaszewski, 2006). Specific accounting issues and limited expected benefits are also significant concerns (Morris, Gray, Pickering, & Aisbitt, 2014). The benefits of IFRS adoption vary across firms and countries. Factors other than the standards themselves could also influence them (De George, Li, & Shivakumar, 2016). The major benefit of IFRS implementation is an increase in the quality of financial statements. The research findings

by Osasere and Ilaboya (2018) and Yurisandi and Puspitasari (2015) confirm it. These researchers found statistically significant differences in the reporting period after applying the IFRS compared to the period before implementation by increasing the quality of financial reports measured by qualitative conditions.

Regarding IFRS 17, Alhawtmeh's (2023) research exploring the impact of IFRS 17 on the insurance industry aligns with previously mentioned studies. His investigation focused on the effect on accounting measurement and disclosure. The application of IFRS 17 seems to enhance accounting measurement and disclosure, improving the quality of financial reports in the case of Jordanian insurance companies. Moreover, Alhawtmeh's (2023) study underscores the critical role of IFRS 17 in standardizing accounting practices and enhancing the transparency and reliability of financial reporting within the insurance industry. Moreover, Arce *et al.* (2023) noticed that the IASB's decisions throughout the IFRS 17 standard-setting process aligned with stakeholders' interests without favoring any particular group. Moreover, the due process shielded against political and constituent pressures, thereby preserving the IASB's legitimacy.

Simultaneously, insurance companies have expressed concerns about the impact of IFRS 17 on their financial statements, as implementation might raise uncertainty about the standard's practical application (De Nichilo, 2022). For example, KPMG (2017) disclosed that the implementation of IFRS 17 and IFRS 9 represents a significant challenge for insurance companies, surpassing previous regulatory changes like Solvency II. Larger insurance companies are further along in their implementation efforts than smaller companies. Moreover, the survey conducted by PWC (2019) assesses the difficulty level in implementing various requirements of IFRS 17 in the Bulgarian insurance market. According to the survey, the most challenging areas in implementing IFRS 17 include processing the contractual service margin, tasks inherent to the transition, and providing necessary and appropriate information for account presentation. In the case of Jordanian insurance companies, data availability, first-time implementation, adjustments of IT systems, and presentation of the results are key challenges faced in implementing IFRS 17 (Owais & Dahiyat, 2021).

Furthermore, the implementation of IFRS 17 requires significant changes to insurance companies' accounting systems, processes, and strategies, which can be challenging but might increase transparency and comparability (Andrioaia & Grosu, 2023). Moreover, IFRS 17 adoption in the life insurance industry in Ghana is associated with both difficulties and merits (Ansong, 2024). Ansong's (2024) research shows that IFRS 17 full adoption comes with several challenges, including data management, actuarial assumptions, investments in technology, staff training, stakeholder communication, and collaboration within insurance companies. Despite these challenges, the benefits of IFRS 17 are substantial. In addition to enhancing transparency and comparability, IFRS 17 can facilitate better-informed business decisions, increase investor confidence, and strengthen regulatory oversight (Ansong, 2024).

The literature indicates that problems with IFRS 17 implementation are of a different nature. The first problem analyzed in our study relates to annual cohorts, specifically that they fail to provide an accurate representation of participating life insurance businesses, particularly in continental European countries (Thérond & Froment, 2020). Moreover, the complexity of determining how a paid premium should be earned over time and valuing the associated costs in the insurance industry, which IFRS 17 aims to address, adds to the non-intuitiveness of the presentation (Palmborg *et al.*, 2021). Lastly, the lack of a clear definition of profit in the IASB's conceptual framework and the inconsistency and complexity in the concept of profit in IAS 1 contribute to the non-intuitive nature of profit and loss presentation in IFRS 17 (Barker, 2010). Therefore, researchers state that the costs of IFRS 17 implementation might exceed the benefits due to the annual cohort requirement (Nurunnabi, 2018; De Nichilo, 2022).

The second problem we analyzed in our study was the treatment of onerous contracts, as the application of IFRS 17 requires significant judgment, particularly in determining the contractual service margin (Yousuf *et al.*, 2021). The third problem regarded the fact that there are two methods for the calculation of discount rates. Yousuf *et al.* (2021) highlight that employing different methods can lead to economic and accounting mismatches. Moreover, the PAA in IFRS 17 has

been a subject of debate due to its application to inter alia cash-flow matched contracts (Thérond & Froment, 2020), which we might consider problem number four. The standard significantly changes insurance accounting, leading to a need for updated values instead of historical costs (Yanik & Ece, 2017). The cost of implementation, including training, interpretation, and IT infrastructure, can be substantial (Sharma, Chandra Joshi, & Kansal, 2017). Therefore, first-time implementation might require additional provision and thus presents the fifth problem. The risk adjustment for non-financial risk was the sixth problem, as Boumezoued *et al.* (2020) and Signorelli *et al.* (2022) emphasize the need for a direct approach to assess risk adjustment. Furthermore, the IFRS implementation poses several challenges for IT systems (issue number seven). These include the need for high IT expertise from auditors (Emekaponuzo, Jeremiah, & Alfred, 2017), difficulties in capturing necessary information for reporting (Weaver & Woods, 2015), and the complexity of IFRS and lack of implementation guidance (Jermakowicz & Gornik-Tomaszewski, 2006). The transition to IFRS also requires significant changes in IT systems, which can be costly and disruptive (Burnett, Friedman, & Murthy, 2010).

Finally, the eighth problem might be the interaction between IFRS 9 and IFRS 17. While there may not be a direct correlation between IFRS 9 and IFRS 17 regarding content or specific requirements, they can have an indirect relationship in the context of financial reporting for insurance companies (IASB, 2021). Since insurance companies often hold financial instruments within their investment portfolios, they need to apply the guidelines of IFRS 9 to those financial instruments. Moreover, insurance liabilities, a significant part of an insurer's balance sheet, are subject to the measurement and recognition requirements of IFRS 17 (IASB, 2021). Pucci *et al.* (2023) research shows that IFRS 17's shifts from an "accounting" to an "economic" perspective. Moreover, IFRS 17 and IFRS 9 ensure systematic recognition of contractual service margin, risk adjustments, and immediate recognition of expected losses. This may increase income statement volatility while stabilizing other comprehensive income.

Significance of the reported issue

The institutional theory provides a valuable framework for understanding the implementation of regulations, including IFRS, among insurance companies. It emphasizes the role of agency, the interests of actors, and the influence of institutional entrepreneurs in shaping the adoption and diffusion of IFRS (Guerreiro *et al.*, 2021). It also offers a framework for understanding the determinants and outcomes of accounting institutions, including IFRS (Wysocki, 2011). Moreover, this theory highlights the role of institutional change in shaping the nature of problems (Dacin *et al.*, 2002). In general, scholars have already recognized several problems (issues) related to the IFRS 17 implementation. These include annual cohorts, treatment of onerous contracts, two methods for the calculation of the discount rates, premium allocation approach, the fact that first-time implementation might require additional provision, risk adjustment for non-financial risk, IT systems, and interaction between IFRS 9 and IFRS (ESRB, 2021; KPMG, 2020; Guillot & Abadlia, 2020). We may identify these issues with the nature of the problems mentioned by Dacin *et al.* (2002). Moreover, resistance due to the institutional embeddedness of local Generally Accepted Accounting Principles, lack of resources, or inadequate alignment with IFRS principles highlights the challenges that institutional theory identifies in achieving conformity (Agana, Zamore, & Domeher, 2023). In fact, some of the issues related to the implementation of IFRS 17 might lose their significance over time, as it suggests that the significance of problems with the implementation of regulation might change due to the institutions' dynamic nature (Pierson, 2000; Dacin *et al.*, 2002). From the institutional theory perspective, we may see the dynamic nature of institutions in terms of significant shifts over time in institutional practices and professional norms (Dacin *et al.*, 2002). To this end, the institution or external bodies operating in the institutional environment may have resolved some of the problems, challenges, and issues related to the implementation of IFRS 17. However, some of these issues may retain their significance, or new issues may emerge, posing ongoing challenges for institutions. Therefore, we hypothesized:

H1. The significance of reported issues related to the implementation of IFRS 17 changes over time due to the dynamic nature of institutions.

Second, institutional theory suggests that different stakeholders, such as experts, practitioners, researchers, and tutors, may be subject to distinct institutional pressures and expectations based on their roles and positions within the institutional field. For example, regulatory authorities pressure practitioners to comply with IFRS 17 standards, while academic researchers may face pressure to contribute knowledge and insights to the field. Moreover, previous research confirms that the type of opinion setter might significantly influence opinion formation. Asher, Caylor, and Neigel (2018) found that the context, source, and type of information shared on social media can also impact opinion formation. Song and Zhang (2022) further demonstrated that individuals with different personality types, such as stubbornness, being a follower, and having extreme personalities, can influence opinion formation. Similarly, Shoham and Ruvio (2008) and Chan and Misra (1990) identified the specific characteristics of opinion leaders, such as public individuation and product familiarity, that can impact opinion formation.

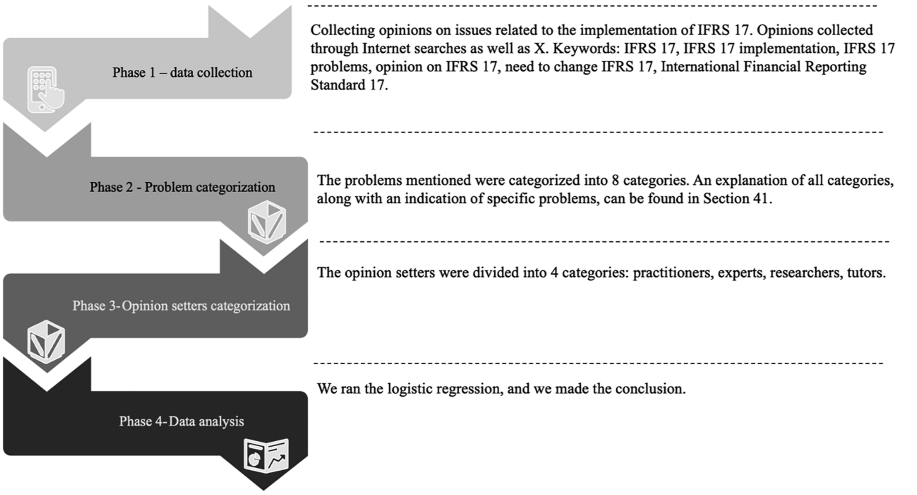
Stakeholder perceptions of IFRS for small-to-medium-sized companies' implementation vary, and there are differences between stakeholder groups and countries (Albu *et al.*, 2013). For example, the market reaction to mandatory IFRS adoption in Poland is positive before adoption but not afterward (Klimczak, 2011). Early adopters of IFRS perceive themselves as market leaders and are more specific about the manageability of implementation (Stent, Bradbury, & Hooks, 2017). As previous studies have shown that the type of opinion depends on the opinion provider, we state a second hypothesis:

H2. The significance of reported issues related to implementing IFRS 17 depends on the type of opinion setter.

Research approach

This study consists of four research phases. Figure 1 summarizes the adopted research approach.

This research used opinions as the data collected from websites, reports, X [1] posts, and business and private blogs. Our search concentrated on identifying market participant opinions for IFRS 17 implementation. We conducted the search from May to December 2021. The



Source(s): Own elaboration

Figure 1. Main phases of our study

oldest opinion is dated April 14, 2017, while the most recent opinion date is November 29, 2021. We considered the period before the implementation of the IFRS 17 standard, before the formulation of the market practices. We recognized opinions after using the following keywords: IFRS 17, IFRS 17 implementation, IFRS 17 problems, opinion on IFRS 17, need to change IFRS 17, and International Financial Reporting Standard 17.

The research sample consisted of 25 opinions (posted on websites, reports, X posts, and business and private blogs), which provided 68 observations. We counted an observation as an individual impression from each person. For example, if two people prepared an analyzed report, it represents the opinion of two people, resulting in two observations. Consequently, we have the opinions of 12 practitioners, 40 experts, 14 researchers, and two tutors.

Following opinion identification, we classified market participants (opinion setters) as experts, practitioners, researchers, and tutors. We defined experts as people who may have an impact on creating regulations or making changes to them, e.g. a member of IASB or EFRAG. Practitioners cooperate with insurance companies and have experience with IFRS adoption. This group includes workers/accountants involved in reporting under IFRS and consultants involved in the process of IFRS 17 implementation. The third group is researchers, such as academics, who study IFRS and might face issues related to the insurance sector. The fourth group of opinion contributors consists of tutors who are offered training on solutions provided in IFRS 17 regulation. We classified market participants based on LinkedIn profiles or biographies available online.

We applied quantitative analysis. We used the collected material to identify problems and challenges related to IFRS 17 implementation noticed by market participants. To represent whether we found specific information (issue of IFRS 17 implementation) in the opinions of market participants included in gathered materials, we created dummy variables that took only 0 or 1 values. Scholars use dummy variables to analyze qualitative data, such as survey responses, categorical representation, and representation of value levels (Garavaglia & Sharma, 1998). Therefore, we used dummy variables to indicate the presence or absence of certain features or content within the posts. Several researchers have used this methodology; for example, Bilinski's (2024) studies examined the impact of corporate communication on social media, Twitter, and stock market reactions to earnings announcements. He used a dummy variable value of 1 if the firm posted at least one post related to financial results on the earnings announcement day and 0 otherwise (Bilinski, 2024). Moreover, Swani, Brown, and Milne (2014) investigated how marketers use Twitter differently across contexts and predict key factors likely to influence each message strategy. To test hypotheses, they used independent variables such as emotional appeals, direct calls to purchase, links and cues for information search, and hashtags – all dummy variables for which 1 indicated the presence, and 0 indicated the absence (Swani *et al.*, 2014). Last but not least, Menon *et al.*'s (2019) research involves an empirical investigation using various dummy variables to analyze the impact of design and content factors on brand Twitter post engagement. They used dummy variables to measure multiple characteristics of brand posts on social media and their effect on engagement metrics. These variables include, inter alia, informative content, determining if the post is informative; social content, showing if the post is social, and incentives, indicating if the post includes incentives (Menon *et al.*, 2019).

Based on the market participants' opinions, we identified eight categories of reported problems. These included annual cohorts, treatment of onerous contracts, two methods for calculating discount rates, premium allocation approach, first-time implementation that might require additional provision, risk adjustment for non-financial risk, IT systems, and interaction between IFRS 9 and IFRS 17. As mentioned above, we coded these problems as "1" if reported, otherwise zero (see Table 1). To support our empirical investigation, we disclose some of the chosen quotations (opinions) in Appendix 1.

Ultimately, we created a database that includes information on the type of problem reported, the date of the report, the number of market participants, and the category of the market participant (expert, practitioner, researcher, tutor). Moreover, to clarify the essence of

Table 1. Explanation and construction of all variables used

Label		Explanation	Measurement
Problem		Information of the noticed problem 1. Annual cohorts 2. Treatment of onerous contracts 3. Two methods for the calculation of the discount rates 4. Premium allocation approach 5. First-time implementation might require additional provision 6. Risk adjustment for non-financial risk 7. IT Systems 8. Interaction between IFRS 9 and IFRS 17	Dummy equal to 1 if a problem was reported; otherwise, zero
TimePass		The number of months elapsed from the date of the reported problem to December 31, 2021	Absolute number of months elapsed from the date of the reported problem to December 31, 2021
Type of opinion setter	Practitioner	Indicator if opinion setter is a practitioner, i.e. a person who professionally implements new accounting standards in the company (consultant, accountant). If the opinion setter is other than a practitioner, it implies that it is a person who addresses theoretical issues of IFRS 17 implementation. For the purpose of the study, we assumed that person addresses theoretical issues of IFRS 17 • An expert is a person who can impact the change of regulations (e.g. a member of IASB or EFRAG) • Other (explained below)	Dummy equal to 1 if the opinion setter is a practitioner; otherwise, zero
	Other	Indicator if the opinion setter is a researcher or tutor. For the purposes of the study, we assumed that a researcher is a person who researches IFRS and a tutor teaches how to implement IFRS 17	Dummy equal to 1 if the opinion setter is a researcher or tutor; otherwise, zero
Consulting		Indicator if the opinion setter was from a consulting company (i.e. Deloitte, E&Y, PwC, KPMG) or not. A consulting company is a professional service firm that provides expertise and specialized labor for a fee, using consultants. Consulting companies offer, inter alia, services related to accounting and compliance with regulations	Dummy equal to 1 if the opinion setter works for a consulting company; otherwise, zero

coded problems, we explain all categories based on industry reports and research papers and indicate specific problems in Subsection 4.1.

To examine the influence of the time passed, the characteristics of the opinion setter, or whether a person from the consulting company reported the problem, we ran the logistic regression. The dependent variable was an indicator variable set to 1 if the given problem was reported and 0 if otherwise. For our main analyses, we used logistic regression due to the dichotomous nature of the dependent variable. Logistic regression has been used previously in accounting research (Bell & Tabor, 1991; Chen & Wei, 1993; Krishnan & Krishnan, 1997; Penman, 1992). Moreover, we clustered standard errors by levels of organization with which

the opinion setter was associated. Individuals from the same company might share common characteristics or experiences. The use of cluster-robust standard errors accounts for this correlation structure and provides more accurate standard errors. We tested our hypotheses using the following logit model (Ge & Whitmore, 2010):

$$logit(\mathrm{p}_{\mathrm{problem}}) = \ln\left(\frac{\mathrm{p}_{\mathrm{problem}}}{1-\mathrm{p}_{\mathrm{problem}}}\right) = \beta_0 + \beta_1\, TimePass_{\mathrm{j}} + \beta_2 TypeofRespondent_{\mathrm{j}} + \beta_3 Other_{\mathrm{j}} + \beta_3 Consulting_{\mathrm{j}} + \varepsilon_{\mathrm{j}} \quad (1)$$

$p_{problem}$ = probability that the problem was reported

β_0 = intercept term

$\beta_1 - \beta_8$ = coefficients for the variables

j = opinion's identifier

ε_{j} = error term

The model re-expresses the probability using a logit transformation, which amounts to taking the logarithm of the odds of an event (problem occurs) happening (the logit transformation is referred to as the log-odds). Therefore, it provides the probability that an opinion setter will point to the analyzed issue as a problem with IFRS 17 implementation. According to the first hypothesis, the expected sign of the coefficient is: $\beta_1 < 0$. Table 1 explains the construction of all variables.

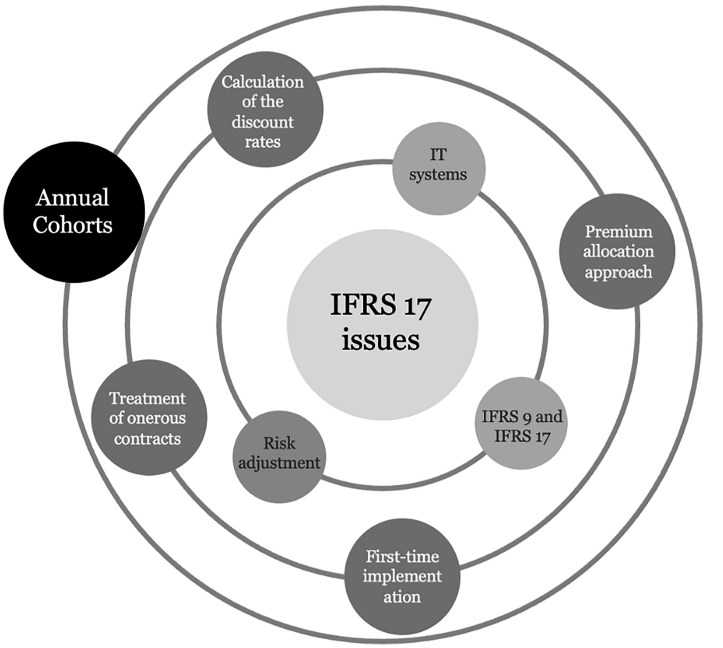
Logistic regression assumes that the event probability is linked to a linear combination of the independent or predictor variables in the study by a logistic cumulative distribution function, which is a nonlinear function. The hitherto accounting research has also used other non-linear link functions, such as the probit function (Ge & Whitmore, 2010). Probit, closely related to logistic regression, includes models based on other plausible cumulative distribution functions (cdfs) defined on the whole real line. It has the same structure as the logistic model, except it is based on the normal cdf rather than the logistic cdf. The normal cdf and logistic cdf are similar in shape, and their density functions are symmetrical. As a supplemental piece of research, we used the probit model as a robustness test (Ge & Whitmore, 2010).

Below, we present the results, starting with the most significant issues reported by market participants and described in reports and official documents (e.g. ESRB, 2021; KPMG, 2020; Guillot & Abadlia, 2020). To ensure clarity, especially for practitioners, we conveyed the maximum content in the minimum number of words.

Results

Issues related to the IFRS 17 implementation reported by opinion setters

Our analysis shows that the annual cohorts represent the biggest challenge for companies implementing IFRS 17 (22% of the opinion setters indicated this problem as significant). Moreover, the treatment of the onerous contract (14% of the opinion setters indicated this problem as significant), having two methods for the calculation of the discount rates (13% of the opinion setters indicated this problem as significant), PAA (13% of the opinion setters indicated this problem as significant), first-time implementation (13% of the opinion setters indicated this problem as significant), risk adjustment for non-financial risk (9% of the opinion setters indicated this problem as significant), changes in the IT systems (9% of the opinion setters indicated this problem as significant), and interaction between IFRS 9 and IFRS 17 (7% of the opinion setters indicated this problem as significant) are also identified as challenges. Furthermore, in Figure 2, we show graphically the frequency corresponding to the relevance of the indicated problems.



Source(s): Own elaboration

Figure 2. IFRS 17 issues

Below, we will describe all of the problems mentioned by the opinion providers.

Annual cohorts. Our investigation revealed that the most controversial aspect of IFRS 17 implementation relates to the annual cohort requirement. The annual cohort requirement stipulates that the entity shall identify portfolios of insurance contracts. A portfolio comprises contracts subject to similar risks managed together. Contracts within a product line are generally assumed to have similar risks and, hence, are typically placed in the same portfolio if managed together. Contracts in different product lines (for example, single premium-fixed annuities compared with regular-term life assurance) are not expected to have similar risks and, therefore, are typically placed in different portfolios (IFRS 17, 2021). This stipulation satisfies the purpose of projecting cash flows and calculating risk adjustment rather than doing so for individual contracts within the group (ESRB, 2021).

However, according to the opinion setters, the annual cohort requirement creates complexity and uncertainty. The main issues related to that annual cohort specified by market participants are voluntary optional exemption, the likelihood that benefits of grouping contracts will not outweigh costs, non-intuitive profits, and loss presentation and loss recognition. We explain these aspects in detail below.

Voluntary optional exemption. A voluntary optional exemption from the annual cohort requirement might negatively affect the increased transparency brought by IFRS 17 (ESRB, 2021; KPMG, 2020). The financial statements of insurers using the exemption from the annual cohort reporting will be less transparent, and the metrics calculated at the portfolio level are not directly comparable to similar metrics calculated at the cohort level by companies not using the exemption (Fitch, 2021).

Benefits not outweighing costs. Some participants expressed their views regarding whether the benefits of the adoption of the annual cohort requirement outweigh the costs. Applying the annual cohort requirement might be costly when different generations of policyholders share risks.

This is because the cash flows of one contract might affect or be affected by contracts with other policyholders and also share in the same pool of underlying items as those other contracts (KPMG, 2020). Moreover, some stakeholders expressed concerns about the unnecessary complexity and volatility resulting from the annual cohort requirement and the impact it might have on certain lines of business at the national level. They consider that the annual cohort requirement reflects neither the current business model of the insurers nor the legal and contractual features of their intergenerationally mutualized and cash-flow-matched contracts (ESRB, 2021).

Non-intuitive profit and loss presentation. Applied to some legacy profit-sharing arrangements, the annual cohort requirement creates complexity, and processes regarding profits and losses under IFRS 17 are non-intuitive and disruptive when compared to those under IFRS 4 (ESRB, 2021). Moreover, IFRS 4 facilitates the continuation of national accounting practices in the measurement of insurance contracts, which historically reflected countries' agreed-upon rules on the fair sharing of risk and profit in insurance contracts (IAS Plus, 2004). However, the requirement to measure insurance contracts by annual cohorts still allows insurers to reflect the contractual features of participating contracts with mutualization features, which could potentially increase the complexity of financial statements and generate a flow of profits and losses over the years that are not necessarily intuitive (ESRB, 2021).

Loss recognition. The annual cohort requirement tends to bring forward loss recognition relative to the all-at-once recognition pattern. Therefore, stakeholders questioned whether the earlier recognition of losses from onerous cohorts is preferable with all types of insurance contracts, especially for contracts under the variable-fee approach, in which profit mutualization is mandatory between contracts of different generations and the related risks are fully shared. Furthermore, stakeholders called into doubt the usefulness of the information obtained while indicating that the costs necessary for its application remain considerable (Guillot & Abadlia, 2020). The issues of annual cohorts and loss recognition relate to the challenge presented below, i.e. the treatment of onerous contracts.

Treatment of onerous contract. When groups of contracts switch from non-onerous to onerous, the asymmetry in the recognition of profits and losses over time creates a sudden change in the sensitivity of profits to alterations in external conditions. As long as contracts are non-onerous, the recognition of small changes in profitability spreads effectively over the remaining contract service lifetime.

Once contracts become onerous, recognizing expected losses in the profit or loss account becomes immediately effective (ESRB, 2021). Contracts might become onerous, possibly as a result of relatively minor changes in the macroeconomic environment. However, in recent years, we have experienced significant environmental changes caused by, for example, the COVID-19 pandemic, the Russian war in Ukraine, and over-inflation rates.

Two methods for the calculation of discount rates. IFRS 17 presents two methods to calculate discount rates. The bottom-up and top-down approaches determine the final amount of insurance contract liabilities. In the bottom-up method, the discount rate equals the sum of the risk-free rate and an illiquidity premium. In the top-down method, the discount rate equals the yield on actual assets in a reference portfolio, reduced by the market risk premia for expected and unexpected credit losses and other adjustments (such as asset-liability mismatch adjustments).

Unfortunately, these two methods can result in different discount rate results. In practice, however, the sum of the estimates of the unobservable risk premia for expected and unexpected credit losses and the liquidity premium may not equal the difference between the yields of corporate bonds and risk-free assets (ESRB, 2021). Moreover, IFRS 17 is applied in turbulent environments (such as a consequence of the COVID-19 pandemic and the unstable political situation in Europe). Therefore, insurers' response can result in significant cross-sectoral heterogeneity in the computation of discount rates and, ultimately, in the valuation of insurance liabilities.

Premium allocation approach. While short-term contracts lasting less than a year are automatically eligible for the PAA under IFRS 17, they can also serve for longer-term

contracts. However, under these circumstances, it is more challenging to prove eligibility. Long-dated contracts are eligible for the PAA if the liability for the remaining coverage calculation is comparable to that under the general model. That means many insurance companies will still need to run the general model to demonstrate eligibility. The result will also require a review and the auditor's sign-off with an agreement regarding how key inputs affect liability for the remaining coverage sensitivity (Sheaf, 2021). Therefore, no consensus exists among companies and advisers on the extended use of the PAA.

Moreover, companies must make an appropriate general model calculation when a contract is onerous. At the same time, governance, data management, and process requirements remain the same for both the general model and the PAA. When companies include contracts that are not subject to the PAA, the additional burden of maintaining and explaining two calculation methods could outweigh the advantages achieved (Covington, 2018). Moreover, under the PAA, losses for onerous contracts must be recognized immediately, but it is not always easy to determine if a contract is onerous (Sheaf, 2021).

First-time implementation might require additional provision. Depending on the currently applicable accounting standards (under IFRS 4, insurance companies can use national accounting standards), the first-time implementation of IFRS 17 could require additional provisions, thereby reducing distributable reserves (ESRB, 2021).

A potential unexpected change in the equity of insurance corporations in the transition to IFRS 17 could affect investor decisions. That is the case particularly if systemically relevant insurers report lower equity than the investors and policyholders had expected. However, timely and adequate reporting of the expected impact of the initial application of IFRS 17 on the balance sheet and especially on the reported equity of insurers could mitigate these risks.

Risk adjustment for non-financial risk. Furthermore, IFRS 17 introduced the innovative concept of compensation in the evaluation process of technical provisions. Insurers are obligated assess the compensation they require for bearing the uncertainty of the amount and timing of future cash flows that arise from nonfinancial risks (Signorelli *et al.*, 2022). The requirements of IFRS 17 raise questions regarding how to compute the risk adjustment for non-financial risk, defined as "the reflection of the compensation that the entity requires for bearing the uncertainty about the amount and timing of the cash flows that arise from non-financial risk" (§ 37 in IFRS 17, 2021). This is part of the insurance liability value. As Hannibal (2018) suggests, one could adopt some existing methods, including the cost of capital (Hannibal, 2018) and probability distribution generating (PDG) based on the claims development triangle (Hannibal, 2018; England, Verrall, & Wüthrich, 2019; Zhao, Mamon, & Xiong, 2021). These methods covered IFRS 17 principles. However, the approach seems inconsistent among all types of insurance contracts, especially because of the differences between the nature of life and non-life insurance. Considering long-term life insurance contracts, the variables of mortality and longevity determine future cash flows. To respond to this need, Signorelli *et al.* (2022) proposed the use of the PDG method returns loading factors that, when applied to the carrying amount of unearned premiums and the expected present value of incurred claims, directly make the risk adjustment for nonfinancial risks related to each technical provision (remaining coverage and incurred claims).

Other considerations include calculating the confidence level to which this risk adjustment corresponds and allocating the risk adjustment to a potentially large number of groups of contracts. With this new accounting standard for insurance contracts, the decisions regarding these topics influence not only the financial officer of the company on a certain date but also the financial performance of the company for many years to come, as these aspects directly affect the revenue streams that the company presents in its financial statements (Palmborg *et al.*, 2021).

IT systems. The impact of regulatory changes on companies' IT systems can be significant. Implementing a new regulation requires first a thorough analysis of the new regulation and then the translation of the regulation into a programming language, introducing changes to the accounting and financial systems, checking and testing the introduced changes, and repeating the whole process if it results in errors. Apparently, this requires an investment of time from employees or

hired consultants. Companies do not show directly most of these costs in their accounting books as regulatory expenses but conceal them in the cost of new and misallocated labor, materials purchased, legal costs, and paperwork. According to the estimates, for some insurance undertakings, these hidden costs are nine times the observed cost of compliance (Dunkelberg, 2016). The negative impact of these regulatory burdens varies significantly by entity size. Regulations do not have the same economic impact on large and small firms, the latter being less well-staffed and resourced to deal with the regulatory avalanche (Dunkelberg, 2016). Implementing IFRS 17 for information systems requires recognizing the contract start date, especially when insurers sell insurance products in a package and include some products at a loss.

Interaction between IFRS 9 and IFRS 17. Given its coverage of financial assets, the interaction between IFRS 9 and IFRS 17 is essential for assessing IFRS 17. However, concerns are limited to the recognition of insurance contract liabilities by the general model approach. To meet the obligations derived from their insurance contracts (recognized as liabilities in their balance sheets), insurance corporations extensively invest in financial assets (Kaufmann, 2024). An important area of concern refers to the possible mismatches in the way of recording financial liabilities under IFRS 17 and financial assets under IFRS 9. In the case of debt instruments, IFRS 9 allows its measurement at fair value to eliminate an accounting mismatch between the financial asset and related financial liabilities (fair value option). In such cases, companies measure debt instruments held solely for the collection of principal and interest conditions at fair value, with gains and losses recognized through profit or loss (IFRS 9, 2020).

In the absence of the fair-value option, companies value debt instruments held solely underpayments of principal and interest conditions and not held for sale at amortized cost or at fair value through other comprehensive income. These instruments are subject to the expected credit loss model of IFRS 9 for the computation of potential impairment losses. Equity instruments, which represent a smaller share of the balance sheets of insurance corporations, could be expected to be valued at fair value through profit or loss. It is unclear whether insurance corporations would use the option to recognize fair value movements through other comprehensive income when there is no recycling of accumulated gains or losses. A mismatch between the accounting treatment of financial assets and the accounting treatment of the related insurance liabilities according to IFRS 17 could lead to higher profit variability (ESRB, 2021). Importantly, once the company completes the classification of an insurance contract, it must remain until the end of the reporting period. Therefore, it is important to classify the insurance contract correctly.

Significance of the reported issue

Table 2 presents descriptive statistics, Akaike's Information Criterion (AIC), and Bayesian Information Criterion (BIC). We used these criteria for model comparison.

The mean values of the variables ranged from approximately 0.235 to 0.838, indicating varying levels of perceived challenges or characteristics among respondents in the sample. Standard deviations varied from approximately 0.371 to 0.504, suggesting differing degrees of variability across the variables. These variables were primarily binary, except for "TimePass," which is continuous. The mean values provided insight into the average perception or behavior regarding the variables. At the same time, the standard deviations indicated the extent of dispersion or variability around the mean within the sample. Moreover, after conducting a thorough comparison using AIC and BIC, our analysis indicated that the models under consideration exhibited similar characteristics.

Tables 3 and 4 present the logit and probit regression results, respectively, indicating which problems lose relevance with time and what kinds of opinion setters are more willing to indicate certain problems.

The findings in Tables 3 and 4 show that issues with annual cohorts, treatment of onerous contracts, two methods for calculating discount rates, IT systems, and interaction between IFRS 9 and IFRS 17 lose their significance over time. The results supported hypothesis H1. However, opinion setters consistently identified the PAA, first-time implementation, and risk

Table 2. Descriptive statistic

Variable	Obs	Mean	Std. deviation	Min	Max	Logit AIC	Logit BIC	Probit AIC	Probit BIC
Annual cohorts	68	0.838	0.371	0	1	21.561	32.659	21.395	32.493
Treatment of onerous contracts	68	0.515	0.503	0	1	43.286	54.384	43.235	54.333
Two methods for the calculation of the discount rates	68	0.5	0.504	0	1	44.118	49.731	43.729	49.343
PAA	68	0.706	0.459	0	1	75.813	86.910	75.748	86.846
First-time implementation	68	0.485	0.503	0	1	63.883	71.688	64.069	71.874
Risk adjustment for non-financial risk	68	0.368	0.486	0	1	30.284	35.897	30.660	36.273
IT systems	68	0.338	0.477	0	1	71.121	78.926	71.271	79.076
Interaction between IFRS 9 and IFRS 17	68	0.279	0.452	0	1	59.851	67.656	60.658	68.463
TimePass	68	24.971	18.766	1	57				
Practitioner	68	0.588	0.496	0	1				
Other	68	0.235	0.427	0	1				
Consulting	68	0.059	0.237	0	1				

Source(s): Own elaboration

adjustment for non-financial risk as challenges. Moreover, research results showed that practitioners pointed more often to problems with the PAA and first-time implementation, while experts were more concerned about annual cohorts. Meanwhile, researchers and tutors pointed to the PAA as the greatest concern. Furthermore, the experts working as consultants more willingly presented annual cohorts as the biggest issues they face in IFRS 17 implementation. This result supported hypothesis H2.

The above results confirm the intuitional change from institution theory, revealing that some issues regarding IFRS 17 implementation might lose their significance over time. This results from the dynamic nature of institutions (Pierson, 2000; Dacin *et al.*, 2002). Figure 3 presents an established theoretical model for the issues related to the IFRS 17 implementation.

The research showed that issues regarding annual cohorts, treatment of onerous contracts, two methods for calculating the discount rates, IT systems, and interaction between IFRS 9 and IFRS 17 lost their significance over time. However, three of those issues are still significant: premium allocation approach, first-time implementation (which might require additional provision), and risk adjustment for non-financial risk. The continued significance of these issues might underscore the complexity and ongoing impact of implementing IFRS 17. Addressing these issues requires technical expertise, robust risk management frameworks, and effective coordination across various departments within insurance companies.

Discussion

Our results indicate that issues with annual cohorts, treatment of onerous contracts, two methods for calculating discount rates, IT systems, and interaction between IFRS 9 and IFRS 17 lose their significance over time. This finding supports the dynamic nature of institutions posited by institutional theory (Pierson, 2000; Dacin *et al.*, 2002), suggesting that as organizations and stakeholders adapt to new regulations, the significance of certain challenges diminishes. This is consistent with previous research indicating that firms iron out initial

Table 3. Logit regression results

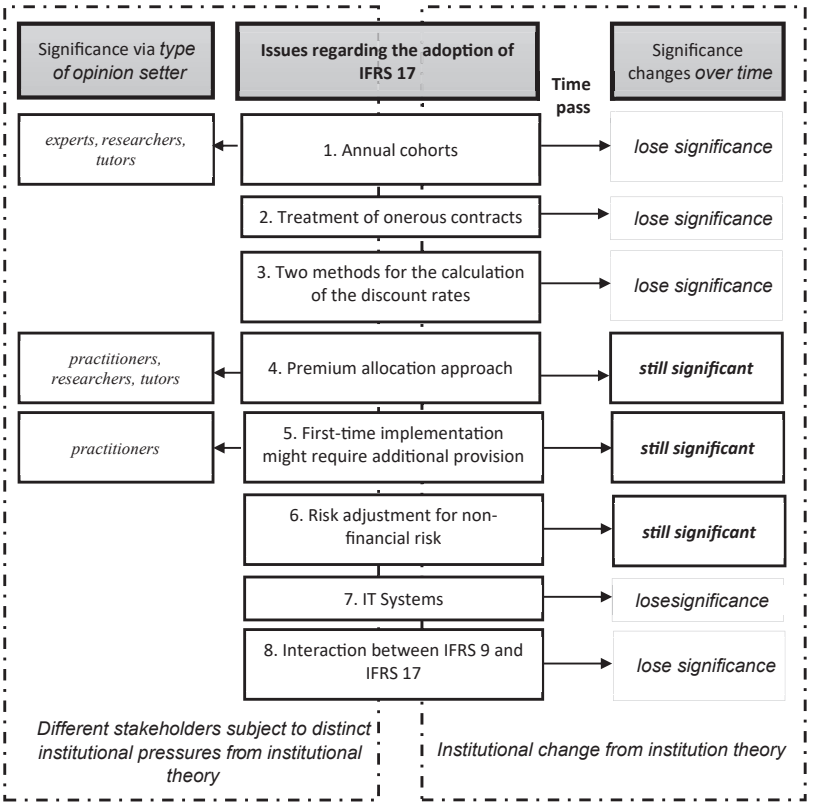
Variables	(1) Annual cohorts	(2) Treatment of onerous contracts	(3) Two methods for the calculation of the discount rates	(4) PAA	(5) First-time implementation	(6) Risk adjustment for non-financial risk	(7) IT systems	(8) Interaction between IFRS 9 and IFRS 17
TimePass	−1.001***	−0.162***	−0.0974***	−0.0316	−0.0272	−0.0301	−0.0459**	−0.0695***
	(0.218)	(0.0407)	(0.0220)	(0.0224)	(0.0237)	(0.0397)	(0.0189)	(0.0248)
Practitioner	−6.182**	−0.567	0.139	1.539*	2.515***	−4.461***	0.211	0.771
	(2.546)	(1.596)	(1.678)	(0.829)	(0.963)	(1.309)	(0.967)	(1.043)
Other	−34.21***	1.169	−0.000	2.563*	0.000	0.000	0.000	0.000
	(7.739)	(1.817)	(0.000)	(1.367)	(0.000)	(0.000)	(0.000)	(0.000)
Consulting	−49.78***	−2.336	−0.000	−1.808	0.228	0.000	−0.619	−1.509
	(10.69)	(1.703)	(0.000)	(1.559)	(1.270)	(0.000)	(1.296)	(1.340)
Constant	56.09***	3.825**	1.992	0.515	−0.534	2.315	0.956	0.803
	(12.13)	(1.935)	(1.771)	(0.988)	(0.989)	(1.456)	(1.069)	(0.992)
Observations	68	68	68	68	68	68	68	68
R^2	0.807	0.646	0.399	0.201	0.181	0.475	0.115	0.240

Note(s): Robust standard errors in parentheses; ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$
Source(s): Own elaboration

Table 4. Probit regression results

Variables	(1) Annual cohorts	(2) Treatment of onerous contracts	(3) Two methods for the calculation of the discount rates	(4) PAA	(5) First-time implementation	(6) Risk adjustment for non-financial risk	(7) IT systems	(8) Interaction between IFRS 9 and IFRS 17
TimePass	−0.531***	−0.0883***	−0.0584***	−0.0182	−0.0144	−0.0114	−0.0276*	−0.0389*
	(0.112)	(0.0220)	(0.0220)	(0.0178)	(0.0182)	(0.0195)	(0.0215)	(0.0216)
Practitioner	−3.349**	−0.299	0.034	0.917	1.492**	−2.480***	0.109	0.343
	(1.427)	(0.816)	(1.005)	(0.676)	(0.681)	(0.680)	(0.765)	(0.777)
Other	−18.66***	0.789	−0.000	1.507*	0.000	0.000	0.000	0.000
	(4.224)	(0.907)	(0.000)	(0.906)	(0.000)	(0.000)	(0.000)	(0.000)
Consulting	−26.47***	−1.260	−0.000	−1.038	0.168	0.000	−0.384	−0.959
	(5.475)	(0.902)	(0.000)	(0.948)	(0.848)	(0.000)	(0.950)	(0.952)
Constant	29.75***	2.068**	1.215	0.290	−0.361	1.178	0.591	0.533
	(6.194)	(0.890)	(1.1.946)	(0.771)	(0.744)	(0.784)	(0.906)	(0.863)
Observations	68	68	68	68	68	68	68	68
R^2	0.808	0.647	0.406	0.201	0.178	0.468	0.113	0.2287

Note(s): Robust standard errors in parentheses; ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$
Source(s): Own elaboration



Source(s): Own elaboration

Figure 3. Framework of IFRS 17 implementation

implementation difficulties as they gain more experience and refine technical standards through practical application (Weaver & Woods, 2015). However, three issues remain persistently significant: the PAA, first-time implementation, and risk adjustment for non-financial risk. The ongoing relevance of these issues underscores the complexity and the substantial demands of IFRS 17. This aligns with Sharma *et al.* (2017) and Jermakowicz and Gornik-Tomaszewski (2006), who highlighted the considerable challenges posed by the technical aspects and the need for extensive training and IT investments. Moreover, the persistent challenges with the PAA and risk adjustments reflect the complexities of accurately accounting for and managing insurance contracts, a concern echoed by Thérond and Froment (2020), Boumezoued *et al.* (2020), and Signorelli *et al.* (2022).

Moreover, the study revealed that different types of opinion setters – practitioners, experts, researchers, and tutors – identify varying key issues with IFRS 17 implementation. Practitioners are more likely to highlight problems with the PAA and first-time implementation, suggesting that those directly involved in the operationalization of IFRS 17 face immediate, practical challenges. Experts, particularly consultants, tend to emphasize annual cohorts as a major issue. This might reflect their broader perspective on the standard's strategic implications and long-term impacts, as they often engage with multiple organizations and regulatory environments. Researchers and tutors focus on educational and theoretical aspects and thus point to the PAA as the greatest issue, which could be due to the conceptual

complexity and the need for thorough academic scrutiny and clarity in teaching. This variation in stakeholder perceptions highlights the multifaceted nature of IFRS 17 implementation. It supports the view that regulatory changes are perceived and experienced differently across the institutional field, as suggested by Guerreiro *et al.* (2021). The findings also confirm that the role and context of the opinion providers significantly influence their perspective, a point noted by Asher *et al.* (2018) and Song and Zhang (2022).

Conclusion

Initially, insurance companies had four years to implement the new standard (IFRS Foundation, 2017). However, the authorities postponed the deadline due to many complexities and problems. Consequently, companies had six years to adapt their reports to the new standard (IASB meeting, 2020; IAS, 2021). This indicates that IFRS 17 was difficult to implement.

We analyzed the opinions of market participants involved in the implementation of the new standard. We identified the main problems related to the annual cohorts, treatment of onerous contracts, two methods for the calculation of the discount rates, the PAA, first-time implementation, risk adjustment for non-financial risk, IT systems, and interaction between IFRS 9 and IFRS 17. However, our analysis showed that the annual cohorts presented the biggest challenge for companies implementing IFRS 17 (22% of the opinion setters indicated this problem as significant), followed by the treatment of onerous contracts (14% of the opinion setters indicated this problem as significant), having two methods for the calculation of the discount rates, the PAA, and first-time implementation (13% of the opinion setters indicated each of these problems as significant). Moreover, analysis shows that, over time, financial market participants were less likely to report almost any of these issues as problems. This might be because the market, with the cooperation of regulators, eventually reaches satisfactory solutions to these issues. The results confirmed that the intuitional change from institution theory suggests that some issues with IFRS 17 implementation may diminish over time due to the institutions' dynamic nature (Pierson, 2000; Dacin *et al.*, 2002). Therefore, our research findings contribute to prior literature regarding the IFRS's adaptation and Institutional theory (Agana *et al.*, 2023).

Nevertheless, all types of respondents consistently identified the PAA, first-time implementation, and risk adjustment for non-financial risk as challenges. This underscores the ongoing complexity and substantial demands of IFRS 17. In particular, the PAA stands out as a method of valuing insurance contracts that needs further refinement. While the General Model is generally preferred by companies, a simplified method like the PAA can be used if it achieves comparable results. Thus, future research should investigate whether the use of the PAA introduces significantly different results than the General Model, potentially undermining IFRS 17's objective of ensuring comparability in financial statements. This finding adds to the work of Thérond and Froment (2020) and Boumezoued *et al.* (2020), who highlighted these IFRS 17 adoption challenges.

Therefore, we suggest that future research could investigate whether the use of the PAA introduces significantly different results than the General Model. The presence of differences could prove that, unfortunately, the main objective of IFRS 17, which is to achieve comparability between financial statements, has not been achieved. Therefore, we suggest conducting interviews to assess the overall impact of IFRS 17 on financial reporting, decision-making processes, and stakeholder perceptions post-implementation. This could provide insights into whether the standard has achieved its intended objectives and identify unintended consequences. Moreover, previous research shows that companies from different countries demonstrate varying levels of compliance with IFRS in reporting (Klimczak, 2017). Therefore, we suggest that further studies investigate the impact of IFRS 17 implementation on financial reporting in certain countries.

The persistent challenges with certain aspects of IFRS 17 suggest that continuous support and standards refinement are necessary. Regulatory bodies and professional organizations should consider these findings when designing training programs, providing implementation

guidance, and developing supportive IT infrastructure. This is particularly important for smaller insurance companies, which might lack the resources to overcome these challenges independently, as highlighted by KPMG (2017). Furthermore, the dynamic nature of implementation issues calls for a flexible and adaptive regulatory approach. As some problems become less significant over time, the regulatory focus should shift to emerging challenges, ensuring that the standards remain relevant and effective in achieving their intended goals.

A limitation of our study regards that it primarily focused on the initial implementation phase of IFRS 17 and the challenge identified during this period. As a result, the long-term impacts and challenges of the standard remain unexplored.

Note

1. Commonly referred to by its former name Twitter (name changed to X in July 2023)

References

Agana, J. A., Zamore, S., & Domeher, D. (2023). IFRS adoption: A systematic review of the underlying theories. *Journal of Financial Reporting and Accounting*, *ahead-of-print*(ahead-of-print). doi:10.1108/JFRA-08-2022-0317.

Albu, C. N., Albu, N., Pali-Pista, S. F., Gîrbină, M. M., Selimoglu, S. K., Kovács, D. M., … Strouhal, J. (2013). Implementation of IFRS for SMEs in emerging economies: Stakeholder perceptions in the Czech Republic, Hungary, Romania and Turkey. *Journal of International Financial Management and Accounting*, *24*(2), 140–175. doi: 10.1111/jifm.12008.

Alhawtmeh, O. M. (2023). The impact of IFRS 17 on the development of accounting measurement and disclosure, in addition to improving the quality of financial reports, considering compliance with the requirements of IFRS 4-Jordanian insurance companies-field study. *Sustainability*, *15*(11), 8612. doi: 10.3390/su15118612.

Andrioaia, I., & Grosu, V. (2023). IFRS 17 – implementtation and information transparency issues for insurance companies. doi: 10.53486/isca2023.05.

Ansong, M. (2024). Implementation difficulties and merits of international financial reporting standard 17 adoption in Ghana. *International Journal of Innovative Science and Research Technology (IJISRT)*, *9*(3), 582–586. doi:10.38124/ijisrt/IJISRT24MAR041.

Arce, M., Giner, B., & Taleb, M. A. (2023). Due process as a legitimating mechanism: Participation and responsiveness in the development of IFRS 17: Insurance contracts. *Journal of Accounting and Public Policy*, *42*(6), 107150. doi: 10.1016/j.jaccpubpol.2023.107150.

Asher, D. E., Caylor, J. P., & Neigel, A. R. (2018). Effects of social media involvement, context, and data-type on opinion formation. *2018 International Workshop on Social Sensing (SocialSens)*, 32–37. doi: 10.1109/SocialSens.2018.00019.

Barker, R. (2010). On the definitions of income, expenses and profit in IFRS. *Accounting in Europe*, *7* (2), 147–158. doi: 10.1080/17449480.2010.511892.

Bell, T. B., & Tabor, R. H. (1991). Empirical analysis of audit uncertainty qualifications. *Journal of Accounting Research*, *29*(2), 350–370. doi: 10.2307/2491053.

Bilinski, P. (2024). The content of tweets and the usefulness of YouTube and Instagram in corporate communication. *European Accounting Review*, *33*(1), 279–311. doi: 10.1080/09638180.2022.2084759.

Boumezoued, A., Elfassihi, A., Gleeson, C., Kay, A., Lehane, O., Lespinasse, B., & Louvet, D. (2020). IFRS 17: Deriving the confidence level for the risk adjustment: A case study for life (re)insurers. Milliman White Paper, 11.

Burnett, R. D., Friedman, M., & Murthy, U. (2010). IT: What's the impact of IFRS?. *Journal of Corporate Accounting and Finance*, *21*(5), 15–21. doi: 10.1002/jcaf.20606.

Chan, K. K., & Misra, S. (1990). Characteristics of the opinion leader: A new dimension. *Journal of Advertising*, *19*(3), 53–60. doi: 10.1080/00913367.1990.10673192.

Chen, K. C. W., & Wei, K. C. J. (1993). Creditors' decisions to waive violations of accounting-based debt covenants. *Accounting Review*, *68*(2), 218–232.

Covington, N. (2018). Premium allocation approach – complexities of simplification under IFRS 17. In FIS Global.

Dacin, T. M., Goodstein, J., & Scott, R. W. (2002). Institutional theory and institutional change: Introduction to the special research forum. *Academy of Management Journal*, *45*(1), 45–56. doi: 10.2307/3069284.

De George, E. T., Li, X., & Shivakumar, L. (2016). A review of the IFRS-adoption literature. *SSRN Electronic Journal*. doi: 10.2139/ssrn.2664475.

De Nichilo, S. (2022). Detecting earnings management practices in European insurance sector: Purpose and application of accrual modelling and distribution of earnings. *European Journal of Management Issues*, *30*(3), 165–176. doi: 10.15421/192215.

Directive 2009/138/EC. Directive 2009/138/EC of the European Parliament and of the Council of November 25 2009 on the taking-up and pursuit of the business of insurance and reinsurance (Solvency II).

Dunkelberg, W. (2016). The hidden costs of regulations. Forbes. Available from: https://www.forbes.com/sites/williamdunkelberg/2016/07/12/the-cost-of-regulations/?sh=744982216c81

Emekaponuzo, D. E., Jeremiah, O. O., & Alfred, E. J. (2017). Information technology implications of IFRS implementation in Nigeria: Challenges to auditors. *Journal of Investment and Management*, *6*(1), 22–27. doi: 10.11648/j.jim.20170601.14.

England, P. D., Verrall, R. J., & Wüthrich, M. V. (2019). On the lifetime and one-year views of reserve risk, with application to IFRS 17 and Solvency II risk margins. *Insurance: Mathematics and Economics*, *85*, 74–88. doi: 10.1016/j.insmatheco.2018.12.002.

ESRB (2021). Financial stability implications of IFRS 17 insurance contracts. *European Systemic Risk Board*, December 2021. doi: 10.2849/318543.

Fitch (2021). EU insurance accounting less insightful without cohort splits. *Fitch Wire*. Tue July 27. Available from: https://www.fitchratings.com/research/insurance/eu-insurance-accounting-less-insightful-without-cohort-splits-27-07-2021

Garavaglia, S., & Sharma, A. (1998). A smart guide to dummy variables: Four applications and a macro. In *Proceedings of the Northeast SAS users group conference* (Vol. 43).

Ge, W., & Whitmore, G. A. (2010). Binary response and logistic regression in recent accounting research publications: A methodological note. *Review of Quantitative Finance and Accounting*, *34*(1), 81–93. doi: 10.1007/s11156-009-0123-1.

Guerreiro, M. S., Lima Rodrigues, L., & Craig, R. (2021). Institutional theory and IFRS: An agenda for future research. *Spanish Journal of Finance and Accounting/Revista Española de Financiación y Contabilidad*, *50*(1), 65–88. doi: 10.1080/02102412.2020.1712877.

Guillot, F., & Abadlia, Y. (2020). Annual cohorts are a standard requirement under IFRS 17. *Insurance Briefing*. KPMG. Available from: https://assets.kpmg.com/content/dam/kpmgsites/xx/pdf/ifrg/2024/ifrs17-first-impressions-2020.pdf

Hannibal, C. (2018). Calculating the IFRS 17 risk adjustment. *Moody's Analytics Research*, *1*, 553–1658.

IAS (2021). Amendments to IFRS 17, insurance contracts [completed]. *Deloitte*, May. Available from: https://www.iasplus.com/en-ca/projects/ifrs/completed-projects-2/amendments-to-ifrs-17-insurance-contracts-research

IAS Plus (2004). IFRS 4 – insurance contracts. Available from: https://Www.Iasplus.Com/En/Standards/Ifrs/Ifrs4

IASB (2021). Initial application of IFRS 17 and IFRS 9-comparative information. June.

IASB meeting (2020). Effective date of IFRS 17 and IFRS 9 temporary exemption in IFRS 4. IFRS Staff Paper, 2a.

IFRS 17 (2021). Commission Regulation (EU) 2021/2036 of November 19 2021 amending Regulation (EC) No 1126/2008 adopting certain international accounting standards in accordance with Regulation (EC) No 1606/2002 of the European Parliament and of the Council.

IFRS 9 (2020). IFRS 9 financial instruments. Available from: https://Www.Ifrs.Org/Issued-Standards/List-of-Standards/Ifrs-9-Financial-Instruments/

IFRS Foundation (2017). IFRS. IFRS news and events. Available from: https://www.ifrs.org/news-and-events/news/2017/05/iasb-finalises-fundamental-overhaul-of-insurance-accounting/

Jermakowicz, E. K., & Gornik-Tomaszewski, S. (2006). Implementing IFRS from the perspective of EU publicly traded companies. *Journal of International Accounting, Auditing and Taxation*, *15* (2), 170–196. doi: 10.1016/j.intaccaudtax.2006.08.003.

Kaufmann, C. L. J. S. M., Storz, M., Leyva, J. (2024). Insurance corporations' balance sheets, financial stability and monetary policy. ECB Working Paper Series, 2892. doi: 10.2139/ssrn.4698734.

Klimczak, K. M. (2011). Market reaction to mandatory IFRS adoption: Evidence from Poland. *Accounting and Management Information Systems*, *10*(2), 228–248.

Klimczak, K. (2017). Cross-country differences in reporting practices-the case of provisions for liabilities. *Central European Management Journal*, *25*(3), 20–33. doi: 10.7206/jmba.ce.2450-7814.201.

KPMG (2017). Navigating change: Feedback from insurers on the frontline of IFRS 17 and IFRS 9 implementation.

KPMG (2020). Measuring the CSM. Insurance – transition to IFRS 17. Available from: https://home.kpmg/xx/en/home/insights/2018/02/ifrs17-transition-trg-newsletter-insurance-contractual-service-margin.html

Krishnan, J., & Krishnan, J. (1997). Litigation risk and auditor resignations. *Accounting Review*, *72*(4), 539–560.

Kumar, K., Boesso, G., Batra, R., & Yao, J. (2019). Explicit and implicit corporate social responsibility: Differences in the approach to stakeholder engagement activities of US and Japanese companies. *Business Strategy and the Environment*, *28*(6), 1121–1130. doi: 10.1002/bse.2306.

Menon, R. G. V., Sigurdsson, V., Larsen, N. M., Fagerstrøm, A., Sørensen, H., Marteinsdottir, H. G., & Foxall, G. R. (2019). How to grow brand post engagement on Facebook and Twitter for airlines? An empirical investigation of design and content factors. *Journal of Air Transport Management*, *79*, 101678. doi: 10.1016/j.jairtraman.2019.05.002.

Morris, R. D., Gray, S. J., Pickering, J., & Aisbitt, S. (2014). Preparers' perceptions of the costs and benefits of IFRS: Evidence from Australia's implementation experience. *Accounting Horizons*, *28*(1), 143–173. doi: 10.2308/acch-50609.

Nurunnabi, M. (2018). Perceived costs and benefits of IFRS adoption in Saudi Arabia: An exploratory study. *Research in Accounting Regulation*, *30*(2), 166–175. doi: 10.1016/j.racreg.2018.09.001.

Osasere, A. O., & Ilaboya, O. J. (2018). IFRS adoption and financial reporting quality: LASB qualitative characteristics approach. *Accounting and Taxation Review*, *2*(3), 30–47.

Osinubi, I. S. (2020). The three pillars of institutional theory and IFRS implementation in Nigeria. *Journal of Accounting in Emerging Economies*, *10*(4), 575–599. doi: 10.1108/JAEE-07-2019-0139.

Owais, O. W., & Dahiyat, A. (2021). Readiness and challenges for applying IFRS 17 (insurance contracts): The case of Jordanian insurance companies. *The Journal of Asian Finance, Economics and Business*, *8*(3), 277–286. doi: 10.13106/jafeb.2021.vol8.no3.0277.

Palmborg, L., Lindholm, M., & Lindskog, F. (2021). Financial position and performance in IFRS 17. *Scandinavian Actuarial Journal*, *3*, 171–197. doi: 10.1080/03461238.2020.1823464.

Penman, S. H. (1992). Financial statement information and the pricing of earnings changes. *Accounting Review*, *67*, 563–577.

Pierson, P. (2000). The limits of design: Explaining institutional origins and change. *Governance*, *13* (4), 475–499. doi: 10.1111/0952-1895.00142.

Pucci, S., Lupatelli, U., & Vaccarezza, J. (2023). The new income statement of insurance companies in Ifrs 17: First application issues. *New Outlooks for the Scholarly Research in Corporate Governance*, *23*, 23–26. doi: 10.22495/nosrcgp4.

PWC (2019). IFRS 17 market readiness Snapshot on the Bulgarian insurance market. Available from: https://www.pwc.bg/bg/publications/assets/2020/PwCBulgaria_IFRS17_EN.pdf

Sharma, Sh., Chandra Joshi, M., & Kansal, M. (2017). IFRS adoption challenges in developing economies: An Indian perspective. *Managerial Auditing Journal*, *32*(4/5), 406–426. doi: 10.1108/MAJ-05-2016-1374.

Sheaf, S. (2021). IFRS 17: Is the PAA really any simpler than the GMM?. *GrantThornton*. Available from: https://www.grantthornton.co.uk/insights/ifrs-17-is-the-paa-really-any-simpler-than-the-gmm/

Shoham, A., & Ruvio, A. (2008). Opinion leaders and followers: A replication and extension. *Psychology and Marketing*, *25*(3), 280–297. doi: 10.1002/mar.20209.

Signorelli, T., Campani, C. H., & Neves, C. (2022). Direct approach to assess risk adjustment under IFRS 17. *Revista Contabilidade and Finanças*, *33*(90). doi: 10.1590/1808-057x20221646.en.

Song, D., & Zhang, Y. (2022). Opinion formation on a time-varying dynamic network with different personality types: Stubborn, follower, and extreme. In *ICBDT'22: Proceedings of the 5th International Conference on Big Data Technologies* (pp. 190–195). doi: 10.1145/3565291.3565322.

Stent, W., Bradbury, M. E., & Hooks, J. (2017). Insights into accounting choice from the adoption timing of international financial reporting standards. *Accounting and Finance*, *57*(S1), 255–276. doi: 10.1111/acfi.12145.

Swani, K., Brown, B. P., & Milne, G. R. (2014). Should tweets differ for B2B and B2C? An analysis of Fortune 500 companies' Twitter communications. *Industrial Marketing Management*, *43*(5), 873–881. doi: 10.1016/j.indmarman.2014.04.012.

Thérond, P.-E., & Froment, V. (2020). IFRS 17: The sticking point of annual cohorts. *The European Actuary*, *24*, 11–14.

Weaver, L., & Woods, M. (2015). The challenges faced by reporting entities on their transition to international financial reporting standards: A qualitative study. *Accounting in Europe*, *12*(2), 197–221. doi: 10.1080/17449480.2015.1103376.

Wysocki, P. (2011). New institutional accounting and IFRS. *Accounting and Business Research*, *41*(3), 309–328. doi: 10.1080/00014788.2011.575298.

Yanik, S., & Ece, B. A. S. (2017). Evaluation of IFRS 17 insurance contracts standards for insurance companies. *Press Academia Procedia*, *6*(1), 48–50. doi: 10.17261/Pressacademia.2017.745.

Yousuf, W., Stansfield, J., Malde, K., Mirin, N., Walton, R., Thorpe, B., . . . Berry, T. (2021). The IFRS 17 contractual service margin: A life insurance perspective. *British Actuarial Journal*, *26*, e2. doi: 10.1017/S1357321721000015.

Yurisandi, T., & Puspitasari, E. (2015). Financial reporting quality-before and after IFRS adoption using NiCE qualitative characteristics measurement. *Procedia-Social and Behavioral Sciences*, *211*, 644–652. doi: 10.1016/j.sbspro.2015.11.091.

Zhao, Y., Mamon, R., & Xiong, H. (2021). Claim reserving for insurance contracts in line with the international financial reporting standards 17: A new paid-incurred chain approach to risk adjustments. *Financial Innovation*, *7*(1), 1–26. doi: 10.1186/s40854-021-00287-5.

Appendix 1

Table A1. Examples of the market participants' opinions related to the implementation of IFRS 17 marked as "1"

Code	Quotation marked as "1"	Opinion setter characteristic
Annual cohort	*One of the main challenges during the implementation phase is the definition of the groups of contracts, because it affects the entire process: input data, the number of extracts, transform and load processes, methodology, the allocation of risk adjustment and reporting*	Business Manager in SAS with over 10 years of experience in financial services industries, focusing on actuarial modeling, economic capital, IFRS17, and IFRS9
Annual cohort	*The main challenge during the implementation phase is the definition of the groups of contracts . . . many companies may have expenses at a different aggregation level, and this requires reallocation to their IFRS 17 grouping hierarchies*	Senior Industry Consultant SAS with more than seven years of experience in the insurance space, including reporting for IFRS 17
Risk adjustment for non-financial risk	*Determining the risk adjustment for non-financial risk in a group of entities addresses clients' most complex business challenges*	Deloitte Partner, Financial Services Industry leader in Hong Kong Asia-Pacific Audit and Assurance
IT systems	*There are several implementation challenges with IFRS 17 – from interpretation of guidance to actuarial models, systems, data, processes, and resources. . . . Fixing data gaps will be time-consuming. This ranges from data availability – historical data as well as going forward – data granularity, the number of source systems, and the data structure*	Senior Industry Consultant SAS with more than seven years of experience in the insurance space including reporting for IFRS 17
IT systems	*Implementing these new IFRS 17 requirements will entail major changes to insurance companies' actuarial and finance reporting processes, systems, and data. This effort will likely generate implementation costs for many insurers as large as those incurred in the European Union for the adoption of the Solvency II regulations (*Directive 2009/138/EC*)*	Partner in Deloitte Central Europe in charge of financial institutions' service lines with 20 years' experience in auditing and advisory services for the banking and insurance sectors
Interaction between IFRS 9 and IFRS 17	*The insurance industry will now have to change the way it measures insurance liabilities with higher levels of disclosure. These changes will coincide with other changes to the reporting for financial assets under IFRS 9 Financial Instruments, potentially bringing more volatility in reported profit*	EY Global Client Service Partner and EY Global Insurance Leader with over 25 years of professional services experience

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