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Insights From Academic Research on IFRS 9: A Review of the Literature

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ABSTRACT

International Financial Reporting Standard (IFRS) 9 *Financial Instruments* replaced International Accounting Standard (IAS) 39 *Financial Instruments: Recognition and Measurement*, effective 1st January 2018. This study synthesises empirical research on IFRS 9, focused on the three phases of the standard-setting process: classification and measurement, impairment and hedge accounting. The analysis is guided by accounting choice theory and international accounting literature. The impairment requirements received the most attention in the literature, followed by classification and measurement, and hedge accounting. The review of evidence indicates that firms generally apply the classification and measurement requirements consistent with IFRS 9. It also suggests that impairment losses under IFRS 9 are timelier, are less procyclical and are relevant to stock pricing and future bank risks. In line with accounting choice theory and international accounting literature, the evidence implies that management incentives and institutional contexts influence the effects of IFRS 9, particularly on impairment losses. Finally, the paper highlights gaps in the existing literature and suggests areas for future research.

JEL Classification: M41, M48

1 | Introduction

Accounting for financial instruments has been extensively debated over the decades, resulting in one of the most controversial standard-setting issues (Chatham et al. 2010; Gebhardt 2012). The Global Financial Crisis highlighted many problems concerning the complexity and opacity of financial instruments reporting, placing pressure on the International Accounting Standards Board (IASB) to revise International Accounting Standard (IAS) 39 *Financial Instruments: Recognition and Measurement* (Duh et al. 2012). To reduce the complexities associated with accounting for financial instruments, the IASB issued International Financial Reporting Standard (IFRS) 9 *Financial Instruments* in July 2014 as a replacement for IAS 39, with an effective date of 1st January 2018 (Deloitte 2021c).[1] Standard setters seek academic research contributions on important or contentious issues of IFRS 9, including those brought to the attention of the IASB and if any costs or implementation issues are encountered (Bradbury and Howieson 2022; Deloitte 2021d).

The IASB developed IFRS 9 to enhance the provision of useful information about financial instruments, timelier recognition of impairment loss on financial assets, the faithful representation of risk management practices and the reduction of complexity (IASB 2009a, para IN 6). However, the accounting choice literature and the international accounting provide extensive evidence that contracting incentives, corporate governance and institutional settings affect how managers apply accounting standards (Christensen et al. 2013; Christensen et al. 2015; Engelmann and Lam Nguyen 2023; Glaum et al. 2018; Isidro and Raonic 2012;

Soderstrom and Sun 2007; Watts and Zimmerman 1986, 1990). The literature also provides evidence that accounting standards affect managers' economic decisions (Barthelme et al. 2019; Shakespeare 2020). In other words, financial reporting quality is the joint outcome of accounting standards, managerial incentives and institutional settings in which the standards are applied. Given this literature, it is unclear how firms implement IFRS 9 and whether the standard-setting objectives for IFRS 9 have been achieved. Therefore, we review the empirical literature on IFRS 9 to understand how the standard has been implemented in practice, aiming to identify consistent findings and assess whether the IASB's objectives for promulgating IFRS 9 have been met, propose future research directions and provide implications for practice and policy. We synthesise the literature on IFRS 9 by its developmental phases—classification and measurement, impairment and hedge accounting. A total of 35 empirical articles on IFRS 9, published between 2014 and 2024, are reviewed, with 30 (85.7%) published after 2018, the year IFRS 9 became effective.

Some consistent findings have emerged from this review. It finds that IFRS 9 has only limited impacts on the balance sheet classification of financial assets, has improved the disclosure of equity instruments and has not increased earnings volatility (Kvaal et al. 2023; Löw and Erkelenz 2022; Zang et al. 2022). It also finds that the Expected Credit Loss (ECL) model under IFRS 9 enhances the timely recognition of loan loss provisions (LLPs), mitigates the procyclicality of LLP and improves the usefulness of impairment loss information (Gebhardt 2016; Goh et al. 2021; Gomaa et al. 2019; Oberson 2021). The hedge accounting requirements in IFRS 9 may facilitate more effective use of hedge accounting, potentially reducing audit work (Jiang et al. 2025). Consistent with the accounting choice theory, the review finds that managers manage impairment loss, and management incentives and corporate governance moderate the impact of IFRS 9 on the timeliness of impairment loss. Further, in line with the international accounting literature, the review indicates that country-level factors, such as enforcement and regulatory quality, moderate the effect of IFRS 9.

The review finds that empirical researchers have mostly focused on the impairment requirements of IFRS 9, followed by classification and measurement, and hedge accounting. Therefore, future research could explore classification, measurement and hedge accounting in greater depth. For example, future research might examine the impacts of IFRS 9 on audit fees and capital market outcomes, financial liabilities measured at fair value, the business model criterion for classifying financial assets, ESG-linked financial instruments, the choice between IFRS 9 and IAS 39 for hedge accounting guidance, and the implementation of hedge accounting. Finally, while the moderating roles of several management incentives and country-level factors have been studied, future research can investigate other management incentives and diverse institutional settings, such as non-European countries.

The review identifies implications and suggestions for regulators, standard setters, companies and various stakeholders. Kvaal et al. (2023) provide anecdotal evidence from discussions with practitioners that firms avoid measuring some financial assets at fair value through profit or loss (FVTPL), while Guo et al. (2023) document that IFRS 9 changes firms' equity investment strategies in Chinese non-financial firms. Research suggests that the disclosure of fair value movements for equity instruments that are classified as FVTPL should be made mandatory (Kvaal et al. 2023; Guo et al. 2023; Pinto and Morais 2022; Zang et al. 2022). Standardised and mandatory disclosure requirements for financial assets maturity could enhance transparency and comparability among banks and might be included in the standard (Löw and Erkelenz 2022). Given that earnings management behaviour has been documented in some firms following the implementation of IFRS 9, standard setters and regulators may consider introducing enhanced audit standards or more targeted audit procedures to address the increased scope for managerial discretion (Nnadi et al. 2023; Gebhardt 2016; Gomaa et al. 2019). A transitional policy, such as the capital transitional arrangement (CTA) introduced by Basel Committee on Banking Supervision (BCBS), could serve to reconcile the differing objectives of standard-setters and regulators in the application of the ECL model under IFRS 9 (Dong and Oberson 2022; Mora 2022).

The remainder of this paper is organised as follows. Section 2 presents the development of financial instrument accounting standards, introduces the theoretical lenses in IFRS 9 implementation and proposes research questions. Section 3 introduces the methodology used in selecting articles and provides descriptive statistics of the articles reviewed. Section 4 reviews academic research on IFRS 9 as a whole and each developmental phase of IFRS 9 by addressing theoretical-driven consistent findings and key areas of tension. Section 5 proposes future research opportunities aligned with IFRS 9 developmental phases. Section 6 concludes with insights.

2 | Theoretical Engagement in IFRS 9 Implementation

2.1 | Financial Instruments Standard-Setting Development

Accounting for certain types of financial instruments (e.g., hybrid instruments, derivatives and others) had been discussed since 1973, but standard-setting did not begin until the release of Exposure Draft (ED) *Financial Instruments* in 1991 (Hancock 1994). A financial instrument was defined in ED 40 as 'giving rise to a financial asset of one entity and a financial liability and/or equity instrument of another entity' (Hancock 1994, p. 9). ED 40 was revised, completed and replaced by ED 48 *Financial Instruments* in 1994. However, criticism from practitioners and accounting standard setters in various member countries made it difficult to develop a single standard, including recognition, measurement and disclosure. As a result, the International Accounting Standards Committee (IASC)[2] divided the project into phases (IAS 39, para IN3).

IAS 32 *Financial Instruments: Disclosure and Presentation* was issued in 1995 to cover disclosure and presentation requirements. Following the need for more comprehensive guidance, its disclosure portion was relocated to IFRS 7 *Financial Instruments: Disclosures*, leaving IAS 32 for presentation requirements only (Deloitte 2021b; IFRS 7, para 2).

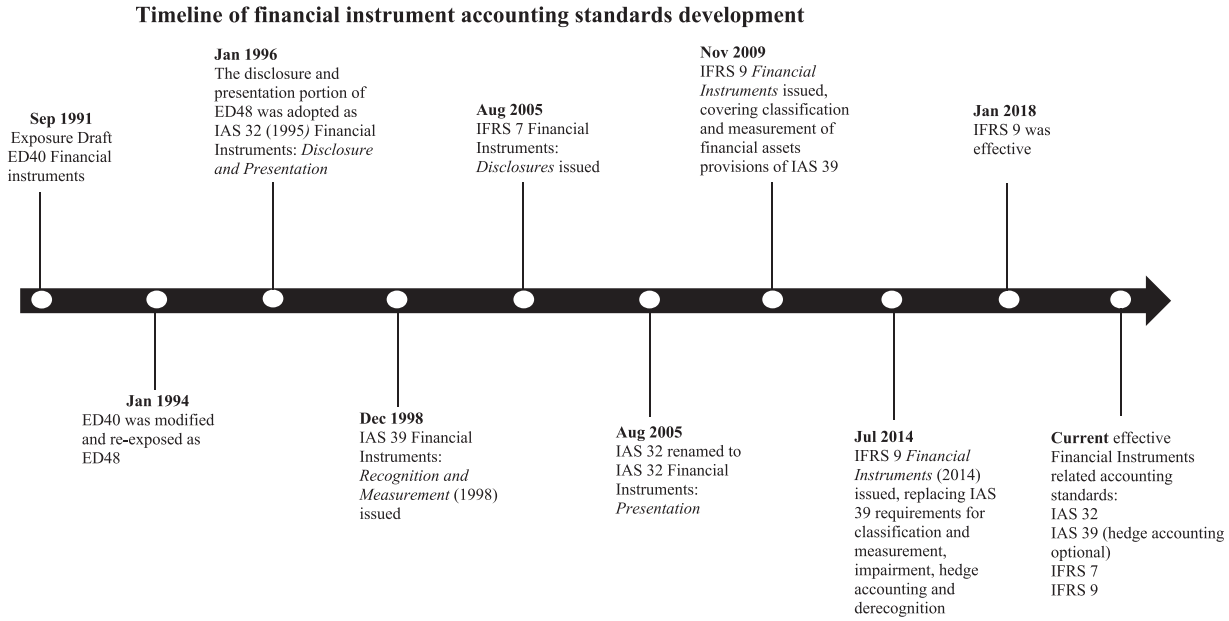

FIGURE 1 | Timeline of financial instrument accounting standards development. (source from the authors). This figure displays a timeline of the development of financial instrument accounting standards.

IAS 39 is the first comprehensive standard on financial instruments dealing with recognition, measurement and hedge accounting, was issued in 1998 (Deloitte 2021a; IAS 39, p. 1021). IAS 39 went through several revisions and has been applied for many years. However, it was increasingly questioned by preparers and users regarding the difficulty in understanding, applying and interpreting requirements in the standard. IAS 39 has been criticised for being 'complex, inconsistent with the way entities manage their businesses and risks', and for deferring 'the recognition of credit losses on loans and receivables until too late in the credit cycle' (PwC 2017, p. 5). These deficiencies were brought into sharper focus during the Global Financial Crisis.

The IASB responded to the requirement of improving accounting for financial instruments and divided the project to replace IAS 39 with IFRS 9 into three main phases: classification and measurement, impairment and hedge accounting. This project, which was endorsed by the Group of 20 leaders (G20), aimed at enhancing the understandability, providing useful information, ensuring timely recognition of impairment losses, accurately representing risk management and reducing complexity of financial instruments accounting (IASB 2009a, para IN6). IFRS 9 was issued in July 2014, with an effective date of 1st January 2018 (Deloitte 2021c). Figure 1 displays a timeline of the development of financial instrument accounting standards.

2.2 | The Accounting Choice Literature and IFRS 9 Implementation

The accounting choice theory seeks to explain and predict why firms make specific accounting choices (Watts and Zimmerman 1978, 1986, 1990). The accounting choice literature suggests that managers' application of accounting standards is shaped by their contracting-based and capital market-based incentives, such as compensation, debt covenants and political costs (Dechow et al. 1996; DeFond and Jiambalvo 1994; Healy and Wahlen 1999; Jones 1991). The international accounting literature documents that managerial incentives vary across countries because of differences in contractual arrangements and country-level factors, such as accounting enforcement, rule of law, book-tax conformity, the relative importance of the stock market in corporate financing, culture, development of the accounting profession and other factors (Ali and Hwang 2000; Ball et al. 2000; Brown et al. 2014; Leuz et al. 2003; La Porta et al. 1998; Preiato et al. 2015; Soderstrom and Sun 2007). Further, standards influence managers' operating, investment and financing decisions (Hartmann-Wendels et al. 2025; Shakespeare 2020).

The application of IFRS 9 requires managers to apply judgements and make estimates. For example, managers must evaluate business models and cash-flow characteristics to classify financial assets into different measurement categories. Also, the ECL model requires managers to estimate the probability of default, the loss given default and the discount rate. Further, IFRS 9 allows several accounting policy options to managers, such as the fair value option for financial assets and the option of choosing the fair value through other comprehensive income (FVTOCI) for equity financial assets (IFRS 9, para 4.1.4, 5.5.4 and 5.7.5). Furthermore, IFRS 9 removes the bright-line hedge accounting effectiveness test of IAS 39, which required the hedging relationship to fall within an 80%–125% threshold and introduces a more principle-based approach to assess whether the hedge is effective (IFRS 9, para 6.4). Given these judgements, estimates and options, the accounting choice literature and the international accounting literature suggest that financial reporting outcomes arising from the application of IFRS 9 may vary across firms and countries due to interfirm variation in managerial incentives and cross-country variation in institutional settings.

The IASB has conducted two post-implementation reviews of IFRS 9 and has decided to start the post-implementation review

of the hedge accounting requirements in IFRS 9 (IASB 2021a).[3] The IASB uses evidence to support its standard-setting decisions and initiated several research calls to encourage academic studies that can contribute to the development and post-implementation assessments of IFRS 9 (IASB 2025). The objective of this literature review is to review the empirical evidence on the adoption and implementation of IFRS 9 by the IFRS 9 development phases. This phase-based structure allows us to assess how academic research informs, supports or criticises standard-setting decisions throughout the development phases of IFRS 9. In line with this purpose, we propose the following research questions.

RQ 1. For each of the developmental phases of IFRS 9, what are the consistent findings and key areas of tension in academic research?
RQ 2. For each of the developmental phases of IFRS 9, how does accounting theory inform empirical findings on IFRS 9 implementation?
RQ 3. What are the emerging research areas that could inform IFRS 9 improvement?

3 | Methodology

First, we apply a keyword approach to search related articles in Google Scholar to ensure that no articles have been missed due to human error.[4] The keywords used in searching related articles include 'IFRS 9', 'Financial instrument*', 'Financial asset*', 'Impairment*', 'ECL*', 'Credit loss*', 'Equity investment*' and 'Equity securit*'. We limit our search to the English language and peer-reviewed articles, and it ends with 292 articles at this stage. Second, we select articles that are published in journals sourced from the Australian Business Deans Council (ABDC) journal list, which is commonly used as a measure of journal quality (De Villiers and Hsiao 2018). Narrowing the scope of journals helped us to better understand the importance of the topics analysed. This search identifies 93 articles. Third, we focus on studies of IFRS 9 in the field of accounting, with Fields of Research (FoR) Codes 1501 and 1502.[5] We then manually check the abstract and introduction of each article to ensure that the study is related to IFRS 9. Following Awuye and Taylor (2025), additional studies are explored by reviewing the reference lists of selected articles. We exclude discussions, editorials and book reviews to make our review focus on research articles (Hussinki et al. 2024). The purpose of this review is to examine empirical evidence on the implementation of IFRS 9; therefore, six standard-setting articles that do not present empirical findings on IFRS 9 application are excluded.

A total of 35 articles across 22 journals published between 2014 and 2024 are reviewed, with Table 1 presenting the distribution of articles by journals. *Accounting in Europe* has the largest number of publications related to IFRS 9, followed by the *Australian Accounting Review*. The publication of two special issues – one in *Australian Accounting Review*, titled 'Research on Application and Impact of IFRS 9', and another in *Accounting and Finance*, titled 'Research on Application and Impact of the hedge accounting requirements of IFRS 9'—in collaboration with the IASB demonstrates the Board's active engagement with academic journals and its keen interest in seeking research-based evidence to inform standard-setting (Bradbury and Howieson 2022; IASB 2023).

Figure 2 is a distribution of the 35 articles reviewed by their publication year, spanning from 2014 to 2024. 85.7% (30) of the articles reviewed are published after IFRS 9 became effective in 2018. 2023 is the most prolific year for IFRS 9-related publications, with 12 articles. Figure 3 presents the distribution of the 35 articles by research region. Similar to Awuye and Taylor (2025), we observed that the majority (51.4%) of empirical studies on IFRS 9 have been conducted in Europe. Seven articles (20.0%) have an international context, while 3 articles (8.6%) focus on China, highlighting a scarcity of IFRS 9 research in other regions. Reflecting firms' business nature, IFRS 9 has a greater impact on financial firms, with 20 (57.1%) of the empirical studies being on banks (untabulated).

The reviewed articles are organised based on the developmental phases of IFRS 9, beginning with studies that examine IFRS 9 as a whole, and continuing with those that focus on classification and measurement, impairment and hedge accounting. Table 2 summarises the number of articles in each of the IFRS 9 phases. The new impairment requirements under IFRS 9 and their impact on firms' risk management are the most extensively examined area, with 18 (51.4%) empirical studies, while only 3 focus on hedge accounting, indicating a research gap in this area. Appendix A provides a list of the authors (with publication year), research methods, and the IFRS 9 phases for each article reviewed.

4 | IFRS 9 Developmental Phases and Empirical Evidence

4.1 | Research on IFRS 9 as a Whole

Nine studies examine the overall impact of IFRS 9 on various outcome variables, such as market reactions (Onali annd Ginesti 2014; Onali et al. 2017), the usefulness of information (Guo et al. 2023; Mechelli et al. 2020; Utami et al. 2023; Zampella and Ferri 2024), financial reporting quality (Norouzpour et al. 2023; Orbán and Tamimi 2023; Utami et al. 2023) and associated costs (Fang et al. 2023; Li et al. 2024).

Orbán and Tamimi (2023) identify a significant positive relationship between IFRS 9 and financial statement quality based on an analysis of questionnaire responses from academics, auditors and bankers in Europe. Mechelli et al. (2020) compare the value relevance of book value under both IAS 39 and IFRS 9 in the transition year and find that IFRS 9 provides incrementally useful information for investors in European financial firms. Similarly, two European studies show that the market reacts positively to standard-setting announcements related to the introduction of IFRS 9 (Onali and Ginesti 2014; Onali et al. 2017). However, Onali and Ginesti (2014) find the positive market reaction is concentrated in countries with a weaker rule of law and less variance between local GAAP and IAS 39, and Onali et al. (2017) find the positive reaction for firms with higher pre-adoption information quality, proxied by size, number of stock exchanges on which the firm is listed, and listing on US exchanges, firms' lower pre-adoption information asymmetry, and firms audited by Big Four auditors. Zampella and Ferri (2024) show that the value relevance of book value of equity and net income for European banks increased from the pre-IFRS period to the IFRS

TABLE 1 | Distribution of reviewed articles by Journal.

Name of Journal	No. of articles reviewed
Accounting in Europe	4
Australian Accounting Review	3
Journal of Financial Reporting and Accounting	3
Accounting and Business Research	2
Accounting & Finance	2
European Accounting Review	2
Finance Research Letters	2
Journal of Accounting and Public Policy	2
Journal of International Financial Management & Accounting	2
Journal of Accounting Literature	1
Accountancy Business and the Public Interest	1
Accounting and Management Information Systems	1
Accounting Forum	1
Accounting, Auditing & Accountability Journal	1
Asian Review of Accounting	1
Australasian Accounting, Business and Finance Journal	1
Financial Reporting	1
International Journal of Accounting & Information Management	1
Journal of Accounting Research	1
Journal of Corporate Accounting & Finance	1
Management Science	1
South African Journal of Accounting Research	1
Total	**35**

Note: (Source from the authors). This table presents the distribution of the articles included in this literature review study, categorised by journal. *Accounting in Europe* has the largest number of publications related to IFRS 9, followed by the *Australian Accounting Review*. This table provides an overview of the journals that have featured studies on IFRS 9.

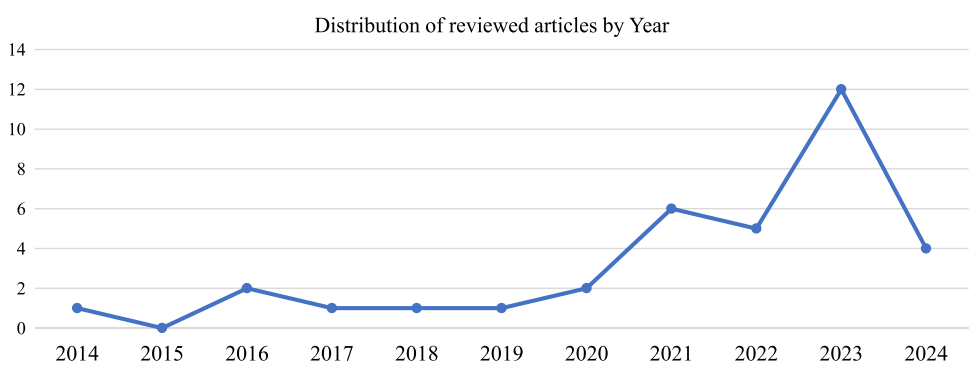

FIGURE 2 | Distribution of reviewed articles by year. (source from the authors). This figure is a distribution of the 35 articles reviewed by their publication year, spanning from 2014 to 2024. 85.7% (30) of the articles reviewed are published after International Financial Reporting Standard (IFRS) 9 became effective in 2018. 2023 is the most prolific year for IFRS 9 related publications, with 12 articles.

9 period, with the effect more pronounced in countries with good governance and stronger bank regulators.

The result of the positive market reaction to the IFRS 9 announcement events in Onali and Ginesti (2014) is inconsistent with the literature that finds that stricter enforcement leads to higher reporting quality (Kabir and Laswad 2015; Armstrong et al. 2010; Daske et al. 2008; Li 2010). It is also inconsistent with the result in Onali et al. (2017) of a positive market reaction to IFRS 9 for firms audited by Big Four auditors, and with the literature that finds higher reporting quality for firms audited by Big Four auditors (Kabir and Rahman 2016; Francis and Wang

TABLE 2 | Distribution of reviewed articles by IFRS 9 phases.

IFRS 9 phases	No. of articles	%
IFRS 9 as a whole	9	25.7%
Classification and measurement	5	14.3%
Impairment	18	51.4%
Hedge accounting	3	8.6%
Total	**35**	**100.0%**

Note: (Source from the authors). This table summarises the number of articles in each of the IFRS 9 phases. The new impairment requirements under IFRS 9 and their impact on firms' risk management are the most extensively examined area, with 18 empirical studies, while only 3 focus on hedge accounting, indicating a research gap in this area.

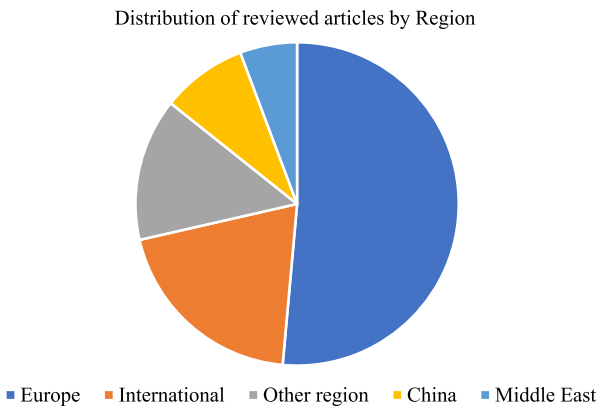

FIGURE 3 | Distribution of reviewed articles by region. (source from the authors). This figure presents the distribution of the 35 articles reviewed by research region. Eighteen (51.4%) of empirical studies on International Financial Reporting Standard (IFRS) 9 have been conducted in Europe. Seven articles (20.0%) have an international context, while 3 articles (8.6%) focus on China, highlighting a scarcity of IFRS 9 research in other regions.

2008; Becker et al. 1998). The proxies for information quality and information asymmetry in Onali et al. (2017) capture both firm incentives and the information environment. Firms that are big and listed on multiple exchanges and US exchanges are followed by more analysts and are under intense market scrutiny, and have, therefore, incentives to disclose more information than other firms. Information asymmetry is lower for these firms. These results suggest that the institutional setting and firm incentives shape the impact of IFRS 9 on value relevance.

Three studies examine the impacts of IFRS 9 on earnings management, firms' investing and financing practices. Norouzpour et al. (2023) find increases in both earnings management and capital management in European banks after IFRS 9 adoption,[6] with the earnings management effect more pronounced in countries with poor regulatory quality. Fang et al. (2022) find that non-financial Chinese firms tend to prematurely sell their available-for-sale assets to mitigate the adverse effects of the new standard and experience significantly higher audit fees in the year following IFRS 9 implementation. After examining firms from 50 countries, Li et al. (2024) document that IFRS 9 reduces firms' reliance on bank debt, as banks increase monitoring costs related to timely credit loss recognition, promoting firms to shift towards public debt financing.

To sum up, earnings management and capital management increased after IFRS 9. Notwithstanding this, the results suggest that IFRS 9 enhances the relevance and representational faithfulness of information generated by IFRS 9, which is consistent with the IASB's objective of providing useful information about financial instruments through the promulgation of IFRS 9 (IASB 2009a, para. 1). However, consistent with the international accounting literature (Soderstrom and Sun 2007; Daske et al. 2008; Li 2010; Ball et al. 2003), the value relevance effects of IFRS 9 are not uniform across countries and firms. Specifically, the effects are stronger in countries with stronger governance and firms with higher pre-adoption information quality and less information asymmetry, suggesting that countries and firms must improve their governance to reap the benefits of IFRS 9. Finally, the results also reveal that IFRS 9 affects firms' investment and financing behaviour. However, a caveat is that only a few studies have investigated the effects of IFRS 9 on the usefulness of accounting information and managerial discretion, suggesting the need for more studies to reach more definitive conclusions.

4.2 | Financial Instruments Classification and Measurement Under IFRS 9

4.2.1 | Financial Instruments Classification and Measurement Standard-Setting

IAS 39 classifies financial instruments into four categories: (1) a financial asset or financial liability at FVTPL; (2) held-to-maturity investments; (3) loans and receivables; (4) available-for-sale financial assets (IAS 39, para 9). Under IAS 39, financial assets' classification determines the basis for their measurement. Classification and measurement for financial assets are a 'combination of the nature of the instrument, its manner of use and management choice' (IASB 2009c). A longstanding and widespread stakeholder view was that the financial instruments classification and measurement approach in IAS 39 was too rule-based and complex (IASB 2021a). Managers' intention to hold the financial assets is critical in their initial classification, which creates space for earnings manipulation (Barth et al. 2017; Dong and Zhang 2018).

IFRS 9 reduces the financial assets classification and measurement categories by providing a clearer rationale for financial assets' classification and measurement and is more principle-based (IASB 2009c). IFRS 9 introduces two tests to determine how financial assets should be classified and measured. One is the business model test, which means 'how an entity manages its financial assets in order to generate cash flows' (IFRS 9, para B4.1.2A). The business model test does not rely on management intentions and is a matter of fact, considering information on 'how cash flows were realised in the past, along with all other relevant information' (IFRS 9, para B4.1.2B). After initial recognition, financial assets can be reclassified only when the entity's business model changes, which is an uncommon event (IASB 2014). The other is the contractual cash flow characteristics test. Once a business model has been identified, managers should consider whether the contractual cash flows of a financial asset are solely payments of principal and interest (SPPI). Only financial assets that pass the SPPI test can be classified as amortised cost or FVTOCI (IFRS 9, para B4.1.7). Other financial assets, such as equity investments and derivatives, must be measured at FVTPL. However, IFRS 9 offers certain exceptions to the above principles, allowing financial assets that meet the business model and SPPI tests to be measured at FVPL and certain equity investments to be measured at FVTOCI.

The treatment of financial liabilities remains virtually unchanged in IFRS 9. One major change is the requirement to present the change in the fair value of liabilities in OCI. Although the IASB designed the classification and measurement requirements for financial assets and financial liabilities to improve the usefulness of financial assets and financial liabilities information, the literature contests some of these classification and measurement rules (Kvaal et al. 2023; Leisenring et al. 2012). Further, the application of these two tests requires managerial judgment, which may be used opportunistically (Kvaal et al. 2023). Thus, the effect of IFRS 9 on the classification and measurement of financial assets is unclear.

4.2.2 | Research on Financial Instruments Classification and Measurement Under IFRS 9

Zang et al. (2022) find a limited impact of standard changes on Australian firms' practice in classifying equity financial instruments. Further, they find that the FVTOCI presentation of equity financial assets remains stable and fail to find any consistent pattern in FVTOCI presentation choice according to earnings volatility. These results suggest that firms are choosing the FVTOCI presentation for not-held-for-trading equity assets, which is consistent with the IFRS 9 requirement, and earnings volatility does not affect the choice of FVTOCI presentation. Similarly, Löw and Erkelenz (2022) document that IFRS 9 has a limited impact on European banks' investment maturity. Consistent with the above studies, Kvaal et al. (2023) find that IFRS 9 has a limited impact on the structure of the balance sheet of European banks. These suggest that, despite changes in IFRS 9, the classification and measurement categories of financial assets remain sticky. A caveat, however, is that balance sheet figures may not capture the full effects of IFRS 9 on the classification and measurement of financial assets. For example, Kvaal et al. (2023) report anecdotal evidence from discussions with practitioners that IFRS 9 classification and measurement requirements led to changes in product mix and/or contractual terms of financial assets to avoid measuring these assets at FVTPL. Further, Guo et al. (2023) report that IFRS 9 shows implementation challenges and changes equity investment strategies in Chinese non-financial firms. However, Zang et al. (2022) report no significant change in the number of Australian firms reporting equity financial assets.

Kvaal et al. (2023) question whether the presentation of FVGL on equity investments in OCI is decision-useful. Pinto and Morais (2022) provide evidence on a sample of the top 100 UK and 50 European firms that the FVGL on equity instruments presented at OCI becomes value relevant after IFRS 9, implying that IFRS 9 increases investors' attention to the changes in the fair value of equity instruments as recognised in OCI (Pinto and Morais 2022). Using a sample of Middle Eastern and North African banks, Ben Ltaief and Moalla (2023) find that, under IFRS 9, firm value is positively related to FVTOCI assets and negatively associated with FVTPL and amortised cost assets, making the overall effect of IFRS 9 implementation on firm value insignificant (Ben Ltaief and Moalla 2023). Evidence also suggests that IFRS 9 improves the disclosure of equity instruments' classification location and has not resulted in an observable increase in earnings volatility (Zang et al. 2022; Löw and Erkelenz 2022).

4.3 | Impairment Under IFRS 9

4.3.1 | Financial Instruments Impairment Standard-Setting

The IAS 39 used an 'incurred loss model' in recognising credit losses, and it required impairment provision based on objective evidence of a loss or trigger event (IAS 39, para 59). The incurred loss model has been criticised for being too late to recognise losses in firms' financial reporting and for creating room to postpone losses (IASB 2014). After extensive consultation with financial statements users, the IASB introduced the ECL model for financial asset impairment in IFRS 9. The ECL model comprises three stages for calculating LLPs.

- Stage 1: An entity shall measure the provision based on 12-month-ECLs if credit risk has not increased significantly since initial recognition.
- Stage 2: If a financial asset has a significant deterioration in credit quality, the allowance is determined based on lifetime-ECLs.
- Stage 3: The entity shall report lifetime-ECLs if there are incurred losses (Engelmann and Lam Nguyen 2023; Oberson 2021).

The ECL model was introduced to require firms to recognise impairment losses on financial assets earlier than under the incurred loss model and to dampen the procyclicality[7] of the impairment loss (Novotny-Farkas 2016). However, prior research suggests that financial reporting conservatism is shaped not only by accounting standards but also by other factors such as litigation and contracting incentives (Watts 2003a, 2003b). Further, the

model involves assessing the credit risk of financial instruments, considering all reasonable and supportable information, even if it is forward-looking (IFRS 9, para 5.5.4). Applying the model requires management to estimate inputs such as the probability of default, loss given default and the discount rate (IFRS 9, para 5.5.9–5.5.11). Estimating these inputs creates room for both measurement error and managerial opportunism, which may, depending on managerial incentives and institutional settings, affect the amount and timing of impairment losses and, hence, the extent of their procyclicality.

4.3.2 | Research on Financial Instruments Impairment Under IFRS 9

As noted above, the IASB introduced the ECL model to speed up the recognition of impairment losses and reduce their procyclicality. Several studies examined the timeliness and procyclicality of impairment losses. These studies document that the ECL model improves the timeliness of LLPs (Gebhardt 2016; Goh et al. 2021; Oberson 2021; Gomaa et al. 2019; Dib and Feghali 2021), thereby meeting the IFRS 9 goal of quickening the recognition of impairment losses.

Moderating excessive procyclicality in the LLPs—which are especially tied to credit risk – is crucial for risk management in banks (Olszak et al. 2017). Salazar et al. (2023) find that the Stage 2 provision is key to lessening the procyclical effect of IFRS 9 on European banks. López-Espinosa and Penalva (2023) observed a reduction in lending only among smaller Spanish banks, but not among larger banks, during the COVID-19 shock, suggesting that IFRS 9 is less procyclical than IAS 39. Hansen et al. (2024) analyse 51 banks from 12 European Monetary Union countries and find modest evidence that LLPs under IFRS 9 dampened procyclicality only in 2020, the peak year of COVID-19. However, Pastiranová and Witzany (2022) find that banks' LLPs under IFRS 9 exhibited procyclical behaviour. Overall, the results suggest that the application of IFRS 9 has mitigated the procyclicality of LLPs.

Several studies examined the impacts of managerial incentives and institutional settings on LLPs under IFRS 9. Using Greek government bonds of an EU bank as an example, Gebhardt (2016) points out that the ECL model in IFRS 9 lacks readily measurable economic counterparts and relies heavily on management expectations of default probability, thereby providing more opportunities for earnings management (Gebhardt 2016). Using a sample of 1416 quarterly observations for 69 banks across 24 countries, Oberson (2021) documents that the greater accounting discretion inherent in the ECL model increases earnings smoothing via LLPs after IFRS 9 adoption. Using laboratory experiments, Gomaa et al. (2019) document that the ECL model increases management discretion, which may result in higher earnings management related to compensation schemes (Gomaa et al. 2019). They, however, find that compensation-related earnings management does not fully offset the positive effects of IFRS 9 on the magnitude of impairment loss. Relatedly, in their analysis of 293 banks from 74 countries, López-Espinosa et al. (2021) do not find evidence to support more earnings or capital management through using the LLP discretion under IFRS 9.

Using an experimental setting, Goh et al. (2021) find that under the ECL model, greater supervisory conservatism leads to earlier and higher recognition of credit losses. In contrast, under the incurred loss model in IAS 39, supervisory conservatism does not impact the provision of loan losses (Goh et al. 2021). Similarly, Du et al. (2023) conduct an experiment with 72 bank managers and find that, when incorporating forward-looking expectations into the ECL estimation, bank managers are less likely to adjust downward credit risk for optimistic projections when there is a default history. Given managers' preference for short forecast horizons, Du et al. (2023) document unconditional conservatism of the new ECL model. Nnadi et al. (2023) observed earnings management behaviour through LLPs following IFRS 9 in European banks, which experience less income volatility after IFRS 9 adoption and cannot be suppressed by prestigious auditors.

Kyiu and Tawiah (2023) find, based on an analysis of 666 banks across 61 countries from 2016 to 2019, that banks' risk declines following the implementation of IFRS 9, with this effect being more pronounced in countries with stronger accounting regulatory enforcement and high banking supervision intensity. However, Orbán and Tamimi (2023) find a significant positive relationship between IFRS 9 and bank risks during the COVID-19 pandemic, indicating that the default of borrowers increases banks' risks that are not mitigated by IFRS 9. Stander (2021) finds that incorporating forward-looking information in the ECL model makes impairment volatility less straightforward to explain in South Africa, highlighting the need for strong model risk governance since model flaws can have a detrimental effect on impairments and lead to reputational risk. Barnoussi et al. (2020) document the challenges banks face when applying the ECL model during the COVID-19 pandemic. They note that the types of assumptions made, sensitivity analyses and other operational aspects of the ECL model are a 'black box' for parties outside of banks and that more disclosure is important to investors, particularly in challenging times (Barnoussi et al. 2020). Engelmann and Lam Nguyen (2023) assess the effect of COVID-19 on banks' LLPs under IFRS 9 and find that banking systems in Canada, Oceania and Western Europe are affected more severely by COVID-19 than China in terms of the preparation for the credit shock. Salazar et al. (2023) find that credit risk parameters in calculating the LLPs remain stable during the COVID-19 period, and the provisions moratoria during COVID-19 reduce the substantial ECL provision impact on banking risk.

Several studies investigated the relevance of impairment loss under the ECL model. Guo et al. (2023) provide evidence from China that IFRS 9 increases the value relevance of impairments to financial assets in financial firms and firms with Big Four auditors. In their analysis of 293 banks from 74 countries, López-Espinosa et al. (2021) find that the ECL model is more predictive of future bank risk than the incurred credit loss model, particularly in countries experiencing credit deterioration. The relevance of LLPs in credit default swap (CDS) pricing has improved after IFRS 9 adoption, but mostly for banks with weaker pre-IFRS 9 information environments (Oberson 2021). He, however, finds that the relevance of the LLP in CDS pricing after IFRS 9 depends on board tenure (Oberson 2021). Salazar et al. (2023) find that LLPs under IFRS are associated with future bank risk.

The standard setting of financial instruments is not only a technical issue but also a political process, closely related to regulators' supervision. Standard-setters and regulators may not always have

the same objective. The BCBS introduced a CTA to allow banks to delay the full application of the ECL model in IFRS 9 and adapt their risk management (Dong and Oberson 2022; Mora 2022). CTA aims to attenuate the potential adverse consequences of the ECL model (i.e., a potential capital shock) by allowing banks to take up to 5 years to rebuild their capital resources. After examining 101 banks across 26 European countries from 2016 to 2019, Dong and Oberson (2022) find that the ECL model may influence bank risk-taking, while the CTA policy may decrease banks' exposure to systematic risk. The CTA policy helps smooth transition to the ECL model under IFRS 9, thereby preventing a sharp impact on banks' regulatory capital (Dong and Oberson 2022).

Taken together, the results offer two major takeaways. First, applying IFRS 9 improved the timeliness of impairment losses, reduced their procyclicality and increased their relevance for predicting future risks. Second, consistent with accounting choice theory and the international accounting literature, these positive effects are moderated by management incentives (e.g., managerial compensation), country-level factors (e.g., quality of regulatory authority) and firm governance (e.g., board tenure).

These results are of potential interest to regulators, standard setters, companies and various stakeholders. First, extant research agrees that the impairment requirements under IFRS 9 are improved compared with IAS 39 (Gebhardt 2016). Given the complex nature of the ECL model, greater disclosure may reduce information asymmetries and is viewed positively by regulators and investors (Stander 2021). Second, consistent with the accounting choice theory, while this ECL model increases timely recognition of LLPs, it also opens the door for managerial opportunistic use of this discretion. Regulators should pay attention to the adverse effects of management error in incorporating forward-looking information into ECL estimation (Du et al. 2023). Third, new audit standards or procedures may be introduced to take earnings management tendencies into account (Gomaa et al. 2019). Regulators and standard setters may need to increase the quality of ECL model and apply stress tests in adverse scenarios to help address the procyclicality (Hansen et al. 2024; Pastiranová and Witzany 2022). Last, bank regulators play an important role in harmonising supervisory practices and consistent application of the new impairment model in IFRS 9 (Novotny-Farkas 2016). A transitional policy, such as the CTA, can be used to bridge the gap between different objectives of standard-setters and regulators (who are mainly concerned with the provision of information and financial stability, respectively) in applying the ECL model in IFRS 9 (Dong and Oberson 2022; Mora 2022). Drawing on the international accounting literature, stronger regulatory governance and enforcement across jurisdictions can help facilitate the effective implementation of the ECL model under IFRS 9.

4.4 | Hedge Accounting Under IFRS 9

4.4.1 | Hedge Accounting Standard-Setting

Hedge accounting requirements in IAS 39 were developed when hedging activities were not widely and sophisticatedly applied and were criticised for failing to provide investors with essential information about firms' risk management (PwC 2016). As part of developing IFRS 9, the IASB undertook a fundamental overhaul of all aspects of hedge accounting to provide a closer alignment with risk management practices and a better understanding of the effect of hedging activities on firms' financial reporting (IASB 2014). IFRS 9 expands eligibility for hedging instruments and broadens eligible hedged items. Instead of a quantitative hedge effectiveness testing requirement in IAS 39, IFRS 9 emphasises the economic relationship between the hedged item and the hedging instruments, eliminating a bright-line hedge effectiveness threshold. In addition, IFRS 9 provides new requirements on documentation, discontinuation and rebalancing for hedge accounting (IFRS 9, para 6.1–6.8). Entities have the accounting policy option to stick with the hedge accounting standards of IAS 39 rather than the new requirements in IFRS 9 until the IASB's macro hedge accounting project is finalised (Müller 2020; PwC 2016; Taylor 2017).

4.4.2 | Research on Hedge Accounting Under IFRS 9

We identify three studies that discuss hedge accounting in IFRS 9 from the perspectives of its impact on audit cost, portfolio earnings and decision-making. Jiang and Ye (2024) provide evidence of an audit fee reduction for non-financial firms following the adoption of the new hedge accounting rules in the Chinese equivalent of IFRS 9. They document that the loosened hedge accounting qualifications in IFRS 9 may help the effective use of hedge accounting in Chinese non-financial firms, which may lead to a reduction of audit work (Jiang and Ye 2024). However, the favourable effect of IFRS 9 is only significant in firms with better corporate governance and stronger external monitoring (Jiang and Ye 2024).

A key area of tension in hedge accounting is the effect of IFRS 9 on earnings volatility, with academic research showing mixed evidence. Applying a Monte Carlo transaction-based simulation approach, Müller (2020) analyses the consequences of hedge accounting changes between IFRS 9 and IAS 39 on portfolio earnings. The simulation results show that applying hedge accounting rules in IAS 39 may lead to higher portfolio earnings volatility during the hedging relationship compared to IFRS 9 (Müller 2020). However, Gumb et al. (2018) interview 48 treasurers from the French Association of Corporate Treasurers and find that the mandatory changes in accounting standards for derivatives from IAS 39 to IFRS 9 impact corporate treasurers' economic decisions, which is a complex, nuanced and dynamic learning process. Treasurers' main concern is an increase in earnings volatility, given that earnings may be managed through an increase in the use of OCI as an alternative to net income (Gumb et al. 2018).

With these studies providing initial insights into the impact of hedge accounting changes in IFRS 9, overall research remains limited, highlighting the need for further research (Awuye and Taylor 2025).

5 | Future Research Directions

This review identifies an imbalance across IFRS 9's developmental phases, with impairment dominating research on IFRS 9, while classification and measurement and hedge accounting

receive less attention. As the impairment model introduces a substantial conceptual shift from the backwards-looking incurred loss model under IAS 39 to a forward-looking ECL model, the change may have a substantial impact on firms, which has attracted most research on it. However, changes in classification and measurement under IFRS 9 are relatively modest, which may result in fewer firm-level effects and research interest. The IASB is still working on a macro hedge accounting project and allows firms to continue to apply hedge accounting requirements under IAS 39; this may lead to a data limitation and delayed research in this area.

5.1 | Classification and Measurement

The evidence accumulated so far suggests that managers' choices are consistent with the requirements of IFRS 9. Evidence also suggests that FVGL on equity financial assets reported in OCI is value relevant. However, studies have not investigated all the ramifications of IFRS 9 for the classification and measurement of financial assets. For example, there is a debate in the literature on whether business models provide a useful classification criterion for financial assets, and whether the FVGL on financial liabilities resulting from changes in the issuers' own credit risk presented in OCI is decision-useful (Leisenring et al. 2012; Kvaal et al. 2023). Further, the accounting choice literature suggests that contracting incentives influence managers' accounting choices (Watts and Zimmerman 1990; DeFond and Jiambalvo 1994; Jones 1991b). Extant studies have not fully explored whether managerial incentives shape managers' choices of classification and measurement categories of financial assets under IFRS 9. Future studies may enrich the literature by examining these issues.

Considering recent market development, the IASB acknowledges the growing use of financial instruments with contractual terms linked to sustainability initiatives, indices or targets. Such terms may, in some cases, affect the contractual cash flows of the instruments. For example, the interest rate on a loan may vary depending on the borrower's performance in meeting specified environmental, social and governance (ESG) targets (IASB 2021a). Given the rapid growth of ESG-related research, it is important to examine the reporting practices surrounding ESG-linked financial instruments. Specifically, researchers can provide descriptive evidence on how such instruments are classified, measured and presented in financial reporting, and analyse to what extent IFRS 9 provides adequate guidance for their classification and measurement. This raises the question of whether additional disclosure requirements may be necessary to enhance transparency and comparability of financial reporting.

5.2 | Impairment

The majority of the articles reviewed in this study (51.4%) focus on the ECL model under IFRS 9. These studies provide evidence that management incentives, country-level factors and corporate governance moderate the impacts of IFRS 9 on the timeliness and procyclicality of impairment loss. However, these studies examined only a limited number of moderating variables in each category. Future studies can examine the moderating impacts of other management incentives, such as share issuance, and governance mechanisms, such as audit quality, auditor tenure, audit committee expertise and board independence. It is unknown whether the ECL model introduces additional capital cost. Given the uncertainty inherent in forward-looking information, the ECL model may require increased involvement of specialised professionals, potentially raising labour and compliance costs. Furthermore, it is of interest to investigate the application of the ECL model in firms facing financial distress, specifically whether credit losses are adequately recognised before the onset of distress. Finally, we do not know much about how the ECL model interacts with the bank capital regulation. Such research could provide valuable insights to standard setters regarding the consistency of ECL model application and the associated costs of compliance.

5.3 | Hedge Accounting

Only three studies examined hedge accounting under IFRS 9, indicating a research gap in this area. Given that firms are allowed to choose between continuing with IAS 39 or adopting IFRS 9 for hedge accounting, it is important to investigate the determinants of this choice. More evidence is needed to understand how firms implement hedge accounting requirements under IFRS 9 and how this information is disclosed. Research could provide evidence on the potential benefits of applying hedge accounting requirements under IFRS 9, for example, whether it enhances the usefulness of financial information. Additionally, the costs associated with IFRS 9 hedge accounting and its impact on capital markets can also be considered.

Future studies can also explore how institutional differences, governance structures and professional practices influence the adoption and effectiveness of hedge accounting in both financial and non-financial firms. Such insights could help standard setters and regulators assess the effectiveness of the hedge accounting requirements under IFRS 9.

Overall, existing research on IFRS 9 mainly focuses on the European context and financial firms. Brown (2011) and Hegarty et al. (2004) document that financial reporting is not only a function of accounting standards, and the different effectiveness of IFRS implementation is emphasised across countries. More importantly, IFRS 9 implementation varies among jurisdictions. Further research on the implementation and consequences in non-European regions and non-financial firms may help standard setters have a full picture of the IFRS 9 implementation (Awuye and Taylor 2025).

6 | Insights and Conclusion

IFRS 9 replaces IAS 39 with an effective date of 1st January 2018. We review the empirical literature on IFRS 9 to develop a comprehensive understanding of its implementation. The accounting choice theory and the international accounting literature inform the review of evidence. This review identifies consistent findings and key areas of tension in empirical research, discusses how the accounting choice theory and the international accounting literature could inform research findings, proposes avenues for

future research and suggests implications for practice and policy. This review is important for understanding concerns that have come to the attention of the standard-setters and evaluating the extent to which the standard achieves its objectives.

We find that, first, IFRS 9 improves information value relevance and its implementation receives a positive market reaction, although prior studies document conflicting evidence regarding IFRS 9's impact on financial reporting quality and firms' risk (Guo et al. 2023; Kyiu and Tawiah 2023; Mechelli et al. 2020; Orbán and Tamimi 2023; Utami et al. 2023; Zampella and Ferri 2024). Second, the classification and measurement requirements under IFRS 9 work as the IASB intended, with a better reflection of future cash flow (Kvaal et al. 2023; Löw and Erkelenz 2022; Zang et al. 2022). Third, the ECL impairment model under IFRS 9 enhances timely recognition of LLPs but increases earnings management and procyclicality (Gebhardt 2016; Goh et al. 2021; Gomaa et al. 2019; Oberson 2021). Last, there is a lack of research on hedge accounting in IFRS 9.

The accounting choice theory and the international accounting literature provide theoretical frameworks for interpreting the divergent findings on IFRS 9's impact on financial reporting quality, risk management, earnings volatility and procyclicality. Managerial reporting choices are shaped by incentives within institutional and contractual constraints. The increased discretion under IFRS 9—particularly in estimating ECL model and hedge accounting—raises questions about the extent to which discretion results in informative versus opportunistic reporting depends on the strength of external monitoring and enforcement mechanisms.

Academic research has some implications for practice and policy. Research suggests that mandatory disclosure of fair value movements for equity instruments classified as FVTPL and standardised requirements for financial assets maturity could enhance transparency and comparability among banks (Löw and Erkelenz 2022; Pinto and Morais 2022; Zang et al. 2022). New audit standards or procedures may need to be developed to account for the implications of IFRS 9 for financial reporting. A transitional policy, such as CTA, could help align the differing objectives of standard-setters and regulators in the implementation of the ECL model under IFRS 9 (Dong and Oberson 2022; Mora 2022).

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Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

The authors have nothing to report.

Endnotes

[1] The IASB allows early adoption of IFRS 9 (Deloitte. 2021c).

[2] IASC was renamed as the International Accounting Standards Board (IASB) and took effect from 1 July 2000 (Deloitte. 2022).

[3] Information on the post-implementation reviews of the classification and measurement requirements in IFRS 9 is available at https://www.ifrs.org/projects/completed-projects/2022/post-implementation-review-of-ifrs-9-classification-and-measurement/. Information on the impairment requirements in IFRS 9 is available at https://www.ifrs.org/projects/completed-projects/2024/post-implementation-review-of-ifrs-9-impairment/. Information on the post-implementation review of the hedge accounting requirements in IFRS 9 is available at: https://www.ifrs.org/projects/work-plan/post-implementation-review-of-ifrs-9-hedge-accounting/.

[4] We use Harzing's Publish or Perish tool to apply a Google Scholar search (Hsiao et al. 2022).

[5] The list of Australian and New Zealand Standard Research Classification (ANZSRC) Fields of Research (FoR) Codes can be found at https://www.arc.gov.au/sites/default/files/minisite/static/4551/ERA2015/app-3_appendix-2.html. The code 1501 is Accounting, Auditing and Accountability and 1502 is Banking, Finance and Investment. We include the 1502 FoR code because IFRS 9 is discussed in finance journals and sheds some light on accounting.

[6] Utami et al. (2023) find that IFRS 9's implementation in banks across 17 Asia-Pacific countries introduces information asymmetry and greater asset opacity.

[7] Procyclicality refers to the propensity of the financial system to trigger booms and busts and, more precisely, to those mechanisms that reinforce the financial movements. Loan loss provisions decline in economic booms and rise during recessions, showing procyclical behaviour (Borio 2019; López-Espinosa and Penalva 2023).

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APPENDIX A: List of articles identified in this review

Authors (Year)	Methodology	IFRS 9 phases
Mechelli et al. (2020)	Archival	IFRS 9 as a whole
Guo et al. (2023)	Descriptive analysis; Archival	IFRS 9 as a whole
Zampella and Ferri (2024)	Archival	IFRS 9 as a whole
Utami et al. (2023)	Archival	IFRS 9 as a whole
Fang et al. (2022)	Archival	IFRS 9 as a whole
Norouzpour et al. (2023)	Archival	IFRS 9 as a whole
Li et al. (2024)	Archival	IFRS 9 as a whole
Onali and Ginesti (2014)	Event-study	IFRS 9 as a whole
Onali et al. (2017)	Event-study; Archival	IFRS 9 as a whole
Kvaal et al. (2023)	Literature review; Descriptive analysis	Classification and measurement
Zang et al. (2022)	Descriptive analysis	Classification and measurement
Löw and Erkelenz (2022)	Descriptive analysis; Archival	Classification and measurement
Pinto and Morais (2022)	Archival	Classification and measurement
Ben Ltaief and Moalla (2023)	Archival	Classification and measurement
Kyiu and Tawiah (2023)	Archival	Impairment
Orbán and Tamimi (2023)	Descriptive analysis; Questionnaire	Impairment
Gebhardt (2016)	Case study	Impairment
Nnadi et al. (2023)	Archival	Impairment
Oberson (2021)	Archival	Impairment
Gomaa et al. (2019)	Experimental	Impairment
Goh et al. (2021)	Experimental	Impairment
Du et al. (2023)	Experimental, survey	Impairment
López-Espinosa et al. 2021)	Archival	Impairment
Engelmann and Lam Nguyen (2023)	Descriptive analysis; Archival	Impairment
Salazar et al. (2023)	Archival	Impairment
López-Espinosa and Penalva (2023)	Descriptive analysis; Archival	Impairment
Hansen et al. (2024)	Archival	Impairment
Pastiranová and Witzany (2022)	Archival	Impairment
Novotny-Farkas. (2016)	Explanation	Impairment
Dong and Oberson (2022)	Archival	Impairment
Dib and Feghali (2021)	Archival	Impairment
Stander (2021)	Descriptive analysis; Simulation study	Impairment
Gumb et al. (2018)	Interview	Hedge accounting
Müller (2020)	Simulation study	Hedge accounting
Jiang and Ye (2024)	Archival	Hedge accounting

Appendix A provides a list of the authors (with publication year), research methods and the IFRS 9 phases examined for each article.