



Impairment or amortization of goodwill? An analysis of CFO perceptions of goodwill accounting

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ABSTRACT

Given the ongoing controversy around the accounting treatment of goodwill and the search by the International Accounting Standards Board (IASB) and Financial Accounting Standards Board (FASB) for improvements to goodwill accounting, this study surveys a global sample of 352 chief financial officers (CFOs) to understand their perceptions of adopting a goodwill impairment-only approach compared to an amortization model. More than half of the respondents agree that alternative accounting treatments of impairment testing might provide more useful information. However, almost two thirds still prefer goodwill impairment testing to the amortization process. Theoretically, the study shows that the impairment-only model preference is associated with characteristics on an individual, firm and country level. The results indicate that more expert CFOs and overall CFO perceptions of firms' economic conditions and the role of external auditors affect preference for the goodwill accounting model. Further, there is evidence that dominant ownership structures and accounting culture affect CFO preferences. The study investigates several areas in which regulators and standard setters can intervene, thereby contributing to the debate on whether to reintroduce the amortization of goodwill.

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1. Introduction

The accounting treatment of goodwill is crucial, because it provides ample scope for managerial discretion, which could threaten the reliability of financial reporting. The Statement of Financial Accounting Standard (SFAS) 142 and the International Accounting Standard (IAS) 36 set the requirements for goodwill accounting, and those of other intangibles, after first being recognized in financial statements. Once recognized as an asset, the goodwill shall be assigned to reporting units (also referred to as cash-generating units or CGUs) of the acquiring entity that is expected to benefit from the synergies derived from the combination. Goodwill is no longer seen as a depreciating asset with a definite useful life. While having an indefinite useful life, it will be tested at least yearly for impairment, therefore its value will not decline systematically. Following IAS 36, the impairment loss derived from the carrying amount in excess of a CGU's recoverable amount will

be allocated first to reduce the goodwill-carrying amount associated with the impaired CGU and the remaining impairment loss will be allocated pro rata to the CGU's other assets based on their carrying amount. The goodwill's adjusted carrying amount becomes the new accounting base and subsequent reversals of the previous impairment losses are not allowed (US GAAP mandates a similar procedure).

These accounting standards aim to produce value-relevant information. However, academic scholars, practitioners, users, and the financial media all criticize the accounting principles tied to fair value measurements, suggesting that they are irrelevant for investment decisions (Ramanna & Watts, 2012).

The International Accounting Standards Board (IASB) and Financial Accounting Standards Board (FASB) have been investigating possible improvements to goodwill accounting. In February 2015, the IASB launched follow-up work regarding IFRS 3 Business Combinations' post-implementation review, among others, to improve the IAS 36 impairment test and subsequent goodwill

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accounting. In March 2020, the IASB published a discussion paper that sets out its preliminary views and invites comments from stakeholders.¹

Along parallel lines, in October 2018 the FASB decided to add a project to its agenda to engage stakeholders on subsequent goodwill accounting, for certain identifiable intangible assets. In July 2020, the FASB discussed the feedback received from its invitation to comment on identifiable intangible assets and subsequent goodwill accounting, the supplemental outreach performed by the staff, and the public roundtables. Among the main aspects that arose, the FASB plans to explore adding amortization to the goodwill impairment model, including the amortization method and period, and to explore other changes to the goodwill impairment model.

To date, there has been ample literature on the value relevance of goodwill (D'Arcy & Tarca, 2018; Holthausen & Watts, 2001) and on its value manipulation (Holthausen & Watts, 2001; Wallace, 2000). Previous research on goodwill impairment was mostly based on archival data and underestimates the CFO role, therefore there is still a lack of evidence on how IAS 36 and SFAS 142 are perceived in practice.

The challenging and topical question the FASB and the IASB raised on how entities should account for goodwill, along with the academic concern about the subjective and future-oriented nature of goodwill (Huikku, Mouritsen, & Silvola, 2017; Li & Sloan, 2017) and with CFOs' primary and active role in the accounting process (Feng, Ge, Luo, & Shevlin, 2011), motivated us to survey a global sample of CFOs to understand their perceptions. To this end, this research has been inspired by four prior studies, showing whether management's preferences for goodwill accounting are affected by factors consistent with a contracting cost framework (Gore, Taib, & Taylor, 2000), how firms implement the impairment test and the reasons behind firms' non-compliance with IAS 36 (Petersen & Plenborg, 2010), auditors' perceptions of earnings management in goodwill accounting (Pajunen & Saastamoinen, 2013), and CFOs' perspectives about the complexities around the implementation of IAS 36 (Mazzi, Liberatore, & Tsalavoutas, 2016).

This manuscript extends prior research by surveying 352 LinkedIn-connected CFOs who prepare financial statements under IAS/IFRS or US GAAP in both private and listed companies globally and by investigating whether their preference for using either the impairment-only approach or goodwill amortization is influenced at three levels of analysis: individual, firm, and country. Most of the survey questions rely on unobservable information and the responses are examined using principal component analysis and multivariate analysis.

At the individual level, the findings indicate that CFOs who majored in accounting, finance, and auditing studies are more likely to prefer goodwill impairment testing, while their experience does not affect their preference. There is evidence that two main factors drive CFO perceptions of the discretionary use of goodwill impairment: the economic conditions in which the firm operates and external auditor characteristics.

At the firm level, the goodwill impairment-only approach preference is positively associated with a prevailing governmental capital structure, while CFOs' preference for the impairment test is negatively associated with capital structures that are either more dispersed or managerial.

At the country level, the results suggest that more optimistic accounting cultures are positively associated with the goodwill impairment-only approach.

¹ See <https://www.ifrs.org/projects/work-plan/goodwill-and-impairment/#current-stage>.

We respond to several calls for research from the management and accounting literature.

First, recent research questions the role of CFOs in the decision-making process (Stevens, Steensma, Harrison, & Cochran, 2005), management accounting practices (Goretzki, Strauss, & Weber, 2013), and financial reporting reliability (Jiang, Petroni, & Yanyan Wang, 2010). While to date the literature has focused on the relationship between chief executive officers (CEOs) or other corporate governance actors and earnings management (Dechow, Ge, & Schrand, 2010), we extend the scant research on the role of CFOs in accounting manipulation and in the use of discretionary goodwill write-offs (Feng et al., 2011; Geiger & North, 2006).

Second, our focus on CFOs is encouraged by the features of the current financial environment that have increased CFO prominence. We show that financial expertise affects CFOs' accounting preferences, as a consequence of their sensitivity to accounting challenges (Davidson, Xie, & Xu, 2004). Regulators and standard setters should consider the potential for CFOs with limited financial expertise when dealing with the complex estimates accounting standards require. In this respect, the study responds to the call for research that asks financial statement preparers which characteristics or practice best serve the informational needs regulators value (Wen & Moehrl, 2016).

Third, we continue a novel way of conducting accounting research. Using the LinkedIn social network allowed us to directly examine the questions of interest for standard setters by involving a high number of CFOs. Our evidence is not based on a single country, but was derived from CFOs working in firms with different characteristics globally, in line with the call for cross-country studies (D'Arcy & Tarca, 2018).

Finally, we also respond to the call for research on how culture affects the application of IFRS, as well as to the need to explore the effect of controversial standards (D'Arcy & Tarca, 2018) and incidentally the application of IFRS by private companies (Gordon, Gotti, Ho, Morad, & Morrise, 2019). All in all, we inform policy-makers and standard setters on how the managerial role of CFOs, impacted by individual, firm, and cultural aspects, can shape accounting (Weetman, 2018).

The remainder of the manuscript is structured as follows: The next section discusses the study background and develops the hypotheses, Section 3 presents the research design, and Section 4 shows the results. The conclusion discusses the core results, policy implications, limitations, and suggestions for future studies.

2. Theoretical background and hypothesis development

2.1. Accounting for goodwill and CFOs

The most suitable accounting treatment of post-acquisition goodwill continues to be discussed at length in the accounting literature (Bloom, 2009; Ding, Richard, & Stolowy, 2008). The main point of contention is the adoption of the impairment-only approach or the amortization model (Wen & Moehrl, 2016). The IASB's preliminary view is that neither amortization nor impairment-only is the perfect approach (IASB, 2020; Lu & Fang, 2019). Reducing the cost and complexity of the impairment test by providing relief from the mandatory annual goodwill test seems a feasible convergence point (Scott, 2019). In a recent discussion paper, the IASB recommends that goodwill amortization should not be reintroduced and that the impairment-only approach should be retained (IASB, 2020). In the same document, however, the IASB raises several questions to stakeholders which indicate that concerns remain.

One of the main issues is that by retaining the impairment-only approach, management is not held accountable for 'bad' acquisition

decisions. Goodwill may in fact be shielded from impairment by, for instance, the headroom of an existing business into which the acquired business is integrated (Scott, 2019). Stakeholders also complain that the annual test adds costs but provides little useful information to investors when there is no indication of impairment. To address some of the concerns, the IASB's preliminary view (2020) is to no longer require a firm to carry out an annual quantitative impairment test of CGUs with goodwill if there is no indication that impairment has occurred, but the company would still be required to assess whether such an indication exists. In the same vein, the IASB recommends simplifying the requirements for estimating value in use and increasing transparency in companies' balance sheets by showing total equity before goodwill. As the impairment test is based on future cash flow estimated in business plans, the alignment of cash flow estimates with companies' internal forecasts besides constraining the complexity would also produce more useful and understandable information. In this way, accounting estimates are aligned with industry practice and financial reporting decisions are connected to management's strategic vision (Globocnik, Faullant, & Parastuty, 2019).

A growing body of literature emphasizes CFOs' crucial role in operational, financial, accounting, and strategic decisions (e.g. Ge, Matsumoto, & Zhang, 2011; Gupta, Mortal, Chakrabarty, Guo, & Turban, 2020; Mian, 2001). The CFO addresses a firm's capital structure and financing decisions (Graham & Harvey, 2002) and is in a position to impact internal controls directly (Wang, 2010). In the past, the CFO role was predominantly associated with financial recordkeeping and preparing tax statements (Kaplan, Samuels, & Thorne, 2009; Schmid & Altfeld, 2018). It has however evolved to now be considered a top management function (Firk, Schmidt, & Wolff, 2019). In contrast, the relevance of other top positions, such as the chief operating officer (COO), is falling (Wang, 2010).

Furthermore, together with CEOs, CFOs not only decide which information to provide and how it should be presented in financial reports (Zorn, 2004) but are also required to certify the financial reports. This advances their accountability and influence beyond that of other executives.

It is generally acknowledged that CFOs are responsible for a firm's accounting decisions and reporting by applying accounting standards (Hossain & Monroe, 2015) to the extent that CFOs are considered the leaders of the finance and accounting functions (Baxter & Chua, 2008). CFOs do not only have fiduciary and professional accountabilities toward many stakeholders (Kaplan et al., 2009), but regulators hold them accountable for firms' financial reports as well as for the fair presentation of financial information (Indjejikian & Matějka, 2009).

For our scope, it is relevant to point out that CFOs are among the first senior managers who are involved in merger and acquisition decisions from which goodwill derives, and they assess goodwill value by estimating future cash flow (Mukherjee, Kiyamaz, & Baker, 2004). Overall, CFOs are expected to have strategic, operational, organizational, accounting, and financial skills, which altogether affect goodwill accounting (Copeland, 2001). Therefore, while the prevailing literature stresses the incentives of CEOs and other executives to manage the timing and amount of goodwill write-offs (e.g. André, Filip, & Paugam, 2016; Masters-Stout, Costigan, & Lovata, 2008; Riedl, 2004), we directly investigate the thoughts of CFOs who experience first-hand how to deal with IAS 36 and SFAS 142.

Of all senior managers, the person most deeply involved in impairment testing is in most cases the CFO. We can theorize that even in firms where the person in charge of impairment testing is not the CFO, the CFO may exert influential power (Mazzi et al., 2016; Petersen & Plenborg, 2010). In this respect, it is the CFO who warrants a closer look regarding preferences about goodwill

accounting, and this is very topical in response to the questions the IASB (2020) raised, such as: "Do you agree that the Board should not reintroduce amortization of goodwill? Why or why not?"

This study is grounded on four prior surveys on goodwill accounting that also mostly focused on the CFO role, but it adds to prior literature by exploring a different sample and research question. The first study explores factors that influence whether management prefer immediate write-off or capitalization-based approaches, using a sample of 212 responses from finance directors of UK-listed firms in 1994 (Gore et al., 2000).

The second study uses 58 responses from CFOs of firms listed on the Copenhagen Stock Exchange and explores what Danish firms do in cases where IAS 36 provides little or no specific guidance, focusing on the technical aspects of the impairment procedure and investigating the reasons behind firms' non-compliance with IAS 36 (Petersen & Plenborg, 2010).

The third study is based on 123 responses from certified Finnish auditors in 2011 to identify auditors' perceptions of possible discretionary behavior with goodwill accounting and factors that form the background of their opinions (Pajunen & Saastamoinen, 2013).

Finally, Mazzi et al. (2016) examined 48 Italian CFOs' perceptions of IAS 36 requirements and their perspectives on the usefulness of reports and guidelines published by the Italian accounting regulators and professional bodies.

All these studies are aimed at understanding perceptions of goodwill accounting from either CFOs or auditors related to listed firms in a single country. In contrast, our sample consists of 352 LinkedIn-connected responses from CFOs of private or listed companies based all over the world and preparing financial statements under IAS/IFRS or US GAAP regulations. In terms of the research question, this manuscript extends prior studies by inspecting whether their preference for using either the impairment-only approach or goodwill amortization is influenced at three levels of analysis: individual (CFO characteristics and perceptions), firm (ownership structure), and country (optimistic accounting culture). The following paragraphs set out the hypotheses on these three levels of analysis and lead to the related theories.

2.2. Individual level: CFO characteristics and perceptions

2.2.1. CFO expertise and experience

Adopting an upper-echelons perspective (Hambrick & Mason, 1984), we first examine the relationship between the preference for using the goodwill impairment-only approach and CFO characteristics (education and age) (Geiger & North, 2006; Graham, Harvey, & Rajgopal, 2005). Upper-echelons theory suggests that executives' characteristics influence how they interpret situations, ultimately affecting their decisions and judgments (Ge et al., 2011).

Two contextual features can intensify the relationship between CFOs' characteristics and accounting preferences: managerial discretion and executive job demands (Hambrick, 2007). Managerial discretion is the result of various actions that fall in a zone of acceptance (Hambrick & Finkelstein, 1987) and discretion marks out the impairment test procedure. Similarly, high job demands exist where CFOs experience their job as difficult or challenging and the impairment test of goodwill is considered a complex task, to the extent that the IASB (2020) aims to simplify the impairment procedure.

All considered, prior literature maintains that the higher the managerial discretion and the more complex the job demands, the more likely it is that CFOs' characteristics will affect their judgment and decision-making (Hambrick, 2007; Hiebl, 2014). As explained, in the goodwill impairment context managerial discretion and job demands are high (Hambrick & Mason, 1984; Hiebl, 2014) due to

countless uncertainties associated with the estimates of fair values and with unstructured procedures that complicate the task. In this study, we support the premise that CFOs' characteristics (education and age) can influence their preferences, affecting how they perceive impairment testing and the complexities underlying the assessment of such difficult estimates (Hambrick, Finkelstein, & Mooney, 2005).

Prior research shows that directors' and committee members' financial and accounting knowledge raises financial reporting reliability by reducing discretionary accruals (Badolato, Donelson, & Ege, 2014), aggressive or opportunistic earnings (Lo, Wong, & Firth, 2010), real earnings management (Jiang, Zhu, & Huang, 2013), and restatements (Aier, Comprix, Gunlock, & Lee, 2005).

We can anticipate that CFOs with financial expertise will not only be able to constrain accounting manipulations, but will also be able to detect it. As such, they will not feel an overwhelming fear to implement the impairment test. It is relevant to point out that the goodwill impairment test requires several assumptions, including the length of the forecast period, the factors impacting future cash flow and interest rates, and the events affecting the terminal value amount (Greco, Ferramosca, D'Onza, & Causholli, 2017). Given the challenges associated with estimating fair values, a lack of finance-related expertise may cause CFOs to perceive it as too risky. In contrast, the amortization process – once the useful life of the goodwill has been estimated – appears easier to apply. Symmetrically, CFOs with finance-related expertise may feel comfortable using impairment testing (Graham, Harvey, & Puri, 2015), making them more inclined to prefer it.² We therefore postulate:

H1a. CFOs' accounting/finance-related expertise is associated with a CFO preference for either the impairment-only or an amortization-based goodwill accounting model.

Prior research suggests that executives accrue experience and improve their management skills over time (Von den Driesch, Da Costa, Flatten, & Brettel, 2015). Experienced CFOs are more likely to undertake risks and feel more confident than their younger counterparts, who may be concerned with avoiding errors or not being considered unskilled and inexperienced, especially in complex task settings (McClelland & O'Brien, 2011). Bishop, DeZoort, and Hermanson (2017) argue that CFOs with greater accounting experience are less susceptible to pressure because they have more confidence. Experience does indeed contribute to developing the coping skills required to manage tasks and obligations under pressure. In this sense, a more experienced CFO may be more likely to perceive impairment testing as less problematic and feel less anxious about it. The reasoning is that there is a greater likelihood that more experienced CFOs have already faced challenging accounting tasks in their careers compared to younger CFOs. Even though holding professional degrees, younger CFOs may lack empirical experience in the field related to the assessment of goodwill impairment and to the use of complex accounting standards in general.³ We therefore propose the following hypothesis:

H1b. CFO experience is associated with a CFO preference for either the impairment-only or an amortization-based goodwill

² The model used before the impairment-only approach was a dual one, involving both goodwill amortization and a goodwill impairment test. It could be argued that CFOs would have to be comfortable with the impairment test, even when the amortization process is applied. We therefore formulate Hypothesis 1a in an open way, rather than directed.

³ It is not unlikely that older CFOs hold certificates and degrees dated before the adoption of the impairment-only approach. They might have failed to update their qualifications with recent accounting standards, making it logical that they would prefer the more familiar amortization process. We therefore formulate Hypothesis 1b in an open way, rather than directed.

accounting model.

2.2.2. CFO perceptions

Agency theory predicts that managers will use write-offs of unverifiable assets in financial reports to maximize advantages (Beatty & Weber, 2006; Ramanna & Watts, 2012; Riedl, 2004). In a seminal work, Francis, Hanna, and Vincent (1996) pose two opposite interpretations of managerial discretion concerning impairment losses: impairment losses signal reliable information to markets (Rees, Gill, & Gore, 1996) and impairment losses derive from earnings management (Riedl, 2004).

In line with the first interpretation, write-offs are appropriate responses to changes in firm performance and in a specific economic environment, such as lower profitability and declining macroeconomic trends (Godfrey & Koh, 2009; Lee, 2011). However, some stakeholders argue that an impairment-only approach cannot identify the consumption of goodwill separately, therefore all reductions in the carrying amount of goodwill are generally labeled as impairment losses. Instead, the information usefulness of the dual model (goodwill amortization and additional impairment when required) is enhanced given that amortization would more effectively hold management to account, as it would show that acquisition is not successful if it does not generate economic benefits. Furthermore, the dual model should prevent goodwill to be 'shielded' from impairment by, for example, the headroom of a business with which an acquired business is integrated (IASB, 2020). In line with this thinking, a part of the literature emphasizes that only the preceding dual model indicates changes in economic conditions by isolating the expected cash flow realizations of the target's excess returns and synergies (amortization) from the unexpected realizations below expectations (impairment losses) (Johansson, Hjelström, & Hellman, 2016).

According to the second interpretation, management takes advantage of the flexibility allowed by accounting standards related to goodwill impairment (AbuGhazaleh, Al-Hares, & Roberts, 2011; Beatty & Weber, 2006). In this sense, managers can take a big bath by overvaluing or anticipating a goodwill write-off (Godfrey, 2006; Riedl, 2004), or they can increase income when it is possible to reach the higher threshold set in compensation schemes (Darrough, Guler, & Wang, 2014; Shuto, 2007). Similarly, goodwill write-offs may also serve to achieve income smoothing (Bouvatier, Lepetit, & Strobel, 2014) or to avoid violating agreements (Beatty, Ramesh, & Weber, 2002). Considering the unresolved debate, we do not predict the direction of the relation and formulate the hypothesis as follows:

H2a. CFO perceptions of write-offs as a reflection of firms' economic conditions are associated with a CFO preference for either the impairment-only or an amortization-based goodwill accounting model.

The external auditing literature suggests that the use of hardly verifiable and auditable fair value measurements, such as those underlying goodwill impairment, is likely to increase opportunistic accounting choices (Ramanna & Watts, 2012). Ferramosca, Greco, and Allegrini (2017) show that salient auditor characteristics affect goodwill write-off accounting. The larger the auditor and the smaller the client, the less incentive the auditor has to behave opportunistically (DeAngelo, 1981; Watts & Zimmerman, 1981). Auditors favour more conservative accounting practices and charge reliable clients lower fees (DeFond, Lim, & Zang, 2012), whereas increased discretionary accruals are positively associated with audit fees (Hogan & Wilkins, 2008).

An important feature to enhance financial reporting quality seems to be auditor independence. In this sense, both non-audit fees (Srinidhi & Gul, 2007) and auditor tenure (Chi & Huang,

2005) are frowned upon, because they put independence and scepticism at risk by engendering ‘excessive familiarity’ with the client, making auditor rotation common (Barghathi, Collison, & Crawford, 2018). At the same time, auditor changes draw attention, as they may result from managerial willingness to ‘shop around’ for favourable audit opinions (Davidson, Jiraporn, & Dadalt, 2006) while longer auditor tenure may be beneficial for developing auditor experience and accruing client-specific knowledge (Johnson, Khurana, & Reynolds, 2002). Indeed, constraining earnings management can be a part of auditors’ industry expertise (Krishnan, 2003) or task-specific knowledge (Greco et al., 2017). Considering the ample and often inconclusive literature on auditor characteristics, it is not clear whether CFOs’ perceptions on these characteristics cause them to prefer the hardly verifiable estimates underlying the impairment test or the amortization process conditional to the type and features of the auditor. We therefore formulate our hypothesis as follows:

H2b. CFOs’ perceptions of external auditors’ monitoring role are associated with a CFO preference for either the impairment-only or an amortization-based goodwill accounting model.

2.3. Firm level: ownership structure

At the firm level, the capital structure can affect CFOs’ accounting preferences because CFOs are supposed to be directly pressured by the directors who appointed them, and they may therefore be indirectly vulnerable to shareholder expectations (Bishop et al., 2017). In this study, we consider three types of ownership: governmental, managerial, and dispersed. When governmental influence on firms is prevalent, CFO appointments are likely to follow specific policies and public rules. CFOs aspiring to a position in a government firm are in general required to have specific qualifications, experience, and skills, such as big data and IT/ICT competency, flexibility, and risk management expertise. However, these CFOs often make decisions in a politically charged atmosphere (North, 1990; Olson, 1993). When the dominant shareholders are internal managers, they may prefer closely-tied CFOs who may be more likely to go along with or submit to CEO pressure (Bishop et al., 2017). Firms with a more dispersed capital structure may prefer selecting their CFO from the external labour market to better defend multiple stakeholder interests as well as to value internal career advancement.

Assuming that shareholders have influence and can exert pressure on CFOs, at least indirectly, we can follow the consolidated stream of the literature grounded on agency conflicts between shareholders and managers. This research contends that ownership composition affects financial reporting reliability, therefore the impairment-only model may be preferred to achieve personal objectives (Ramanna, 2008).

According to agency theory, the higher the managerial ownership, the more the interests of the shareholder and manager are aligned (Fama & Jensen, 1983; Jensen & Meckling, 1976). In this sense, firms with higher insider ownership show reduced earnings management behavior (Warfield, Wild, & Wild, 1995). Such an alignment of interests may however result in directors’ entrenchment (Cornett, McNutt, & Tehranian, 2009; Dyck & Zingales, 2004), leading less independent insiders to manage earnings (Anderson & Reeb, 2004; Klein, 1998), and the flexibility of the impairment test may be used to that end.

Similarly, ownership concentration is positively associated with earnings management (Bouvatier et al., 2014; Leuz, Nanda, & Wysocki, 2003), letting us derive that the more dispersed the ownership, the less likely it will be that the impairment test will be used for reporting incentives. To date, evidence on whether

government-controlled firms are more likely to record goodwill impairment is inconclusive. On the one hand, the state tends to prioritize social and political objectives over maximizing firm value (Shleifer, 1998). On the other hand, there is evidence that income-boosting earnings management is lower in state-owned firms than in other ownership types (Ding, Zhang, & Zhang, 2007; Xianhui & Liansheng, 2009).

To summarize, we argue that CFOs’ preference for the goodwill accounting model depends on a firm’s capital structure. However, as the results of prior literature are still contradictory, we simply predict that:

H3. Firms’ capital structures are associated with a CFO preference for either the impairment-only or an amortization-based goodwill accounting model.

2.4. Country level: accounting culture

The theory behind the analysis of this third level is that culture plays a relevant role in shaping a country’s accounting standards and practices (Ding, Jeanjean, & Stolowy, 2005; Perera, 1994). Accordingly, national profiles of accounting practices and countries can be grouped to better explain choices of accounting standards (Kvaal & Nobes, 2012; Nobes, 1983).

Prior literature argues that national culture influences earnings management; for instance, societies with higher uncertainty avoidance are more likely to adopt earnings smoothing practices to control the future (Doupnik, 2008). More specifically, André et al. (2016) show that US firms recognize timelier and greater amounts of goodwill impairments than their European counterparts. In a similar vein, Tsalavoutas, André, and Dionysiou (2014) show that compliance levels with the required disclosures under IFRS 3, IAS 36, and IAS 38 are lower when a firm is from a country with a French legal origin. In this context, empirical evidence confirms that the extent of corruption and culture simultaneously affect compliance with mandatory goodwill disclosures (Mazzi, Slack, & Tsalavoutas, 2018).

In this fashion, we expect impairment testing to be more embedded in less conservative accounting cultures (Gray, 1988). More optimistic accounting cultures exist mostly in Anglo-Saxon countries and because impairment is more familiar to them, as it has been used for a longer time, it is most likely perceived as less problematic and more meaningful. We therefore formulate the following hypothesis:

H4. Firms’ optimistic accounting culture is associated with a CFO preference for the impairment-only approach.

Table 1 reconciles the three levels of analysis with the related theories, hypotheses, and variables used to test the predictions.

3. Research design

3.1. Survey and sample composition

Several accounting studies have used a field-based questionnaire to survey auditors (Pajunen & Saastamoinen, 2013), CFOs (Beattie, Fearnley, & Hines, 2013), financial executives/directors (Brav, Graham, Harvey, & Michaely, 2005), senior accountants (Hunter, Webster, & Wyatt, 2012), and CEOs (Graham et al., 2015). The survey method fits the explorative nature of this work (Yin, 2013) and allows scholars to take the views of subjects involved in the accounting decision into account. This leads to an integrated perspective of accounting choices (Fields, Lys, & Vincent, 2001), instead of further restricting the research focus to data gathered from databases. In particular, we surveyed CFOs because they are

Table 1
Level of analysis, theories, hypotheses and variables used.

Level of analysis	Theories	Hypotheses	Variables (definitions in Appendix B)
Individual	Upper-echelons	H1a CFOs' accounting/finance-related expertise is associated with a CFO preference for either the impairment-only or an amortization-based goodwill accounting model.	<i>EXPERTISE</i> <i>EXPERIENCE</i>
	Agency	H1b CFO experience is associated with a CFO preference for either the impairment-only or an amortization-based goodwill accounting model.	
Firm	Agency	H2a CFO perceptions of write-offs as a reflection of firms' economic conditions are associated with a CFO preference for either the impairment-only or an amortization-based goodwill accounting model.	<i>EC_perception</i> <i>AUD_perception</i>
		H2b CFO perceptions of external auditors' monitoring role are associated with a CFO preference for either the impairment-only or an amortization-based goodwill accounting model.	
Country	Cultural influence	H3 Firms' capital structures are associated with a CFO preference for either the impairment-only or an amortization-based goodwill accounting model.	<i>GOV</i> <i>DISP</i> <i>MAN</i> <i>OPTIMISM</i>
		H4. Firms' optimistic accounting culture is associated with a CFO preference for the impairment-only approach.	

the key accounting decision-makers on how to apply accounting standards and the related flexibility, ultimately affecting earnings quality. CFOs are also involved in the acquisition processes from which goodwill derives and have the financial expertise to evaluate them (Dichev, Graham, Harvey, & Rajgopal, 2013; Graham et al., 2015).

Our questionnaire had four sections.⁴ The average duration of the survey was 12 min (range: 8–56 min).⁵ We assessed the internal consistency of the survey using Cronbach's alpha, with a value of 0.861, indicating good consistency between the items used in the survey overall (Smith, 2003). Respondents were invited to take part in the survey by one of the research team's LinkedIn connections. They responded from July 2015 to March 2016. Of the 1712 CFOs invited, 352 responded to the first invitation. The response rate (20.6%) was considered successful compared to similar studies (Graham et al., 2015; McEnroe, 2007). Because we did not solicit non-respondents, the results were unaffected by non-response bias. The 352 respondents consisted only of CFOs who worked for organizations that prepare consolidated financial statements with goodwill and that adopted IAS/IFRS (n = 289) and

US-GAAP (n = 63).⁶

Almost half of the CFOs who responded worked for an organization in Europe, 26.2% in the Americas, 11.2% in Asia, and the remainder in Africa and Oceania (Table 2, Panel A). All industries were represented, with a prevalence of respondents from the manufacturing (27.6%), services (9.9%) as well as finance, insurance, and real estate (7.4%) industries (Table 2, Panel B). More than 45% of respondents worked at organizations with more than 1001 employees, around 25% at organizations with total assets and total revenue higher than US\$ 5.1 million (Table 2, Panel C) and most companies were international/multinational (64.8%) (Table 2, Panel D). More than the 80% of the participants' financial reports were audited by a Big Four auditor and about 44% of the companies were listed (Table 2, Panel D).⁷ Almost half (46.9%) of respondents sat on the board of directors and only a small percentage (6.3%) was represented by women. About a quarter (26.1%) had a bachelor's degree, 59.9% a master's degree, and 9.7% a PhD.⁸

3.2. Regression models and dependent variable

Appendix B provides the labels, definitions, and functions of the variables used in this study.

Following a hierarchical logistic analysis, we first examined the relationship between the likelihood of CFOs' preference for using the impairment-only approach to the amortization model and the variables used to test the individual level, including CFO characteristics (*EXPERTISE* and *EXPERIENCE*) as well as their perceptions (*EC_perception* and *AUD_perception*) (Model 1). Next, we explored the relationship between a preference for using the impairment-

⁴ We operationalized the questionnaire, building on the academic literature (Gore et al., 2000; Mazzi et al., 2016; Pajunen & Saastamoinen, 2013; Petersen & Plenborg, 2010) and on surveys of goodwill on the websites of the European Financial Reporting Advisory Group, the Accounting Standard Board of Japan, and the Italian Standards Setter (2014). A copy of the survey is available in Appendix A.

⁵ We carried out 10 pilot tests with two full professors in accounting, two associate professors in accounting, two researchers whose main interests are accounting and corporate governance, a PhD student in statistics, a PhD student in accounting and finance, and two chief accountants. All the pilot tests lasted between 16 min and 30 min, which prevented possible biases due to the short time devoted by some CFOs. Those involved in the pilot tests were expected to devote much time and attention to detect misunderstandings from the final survey. It is therefore not odd that the minimum time spent is slightly higher than that of some CFOs. To further validate the reliability of responses, we tested the differences in the means of the response time. We separated the sample in two groups – one consisting of CFOs who spent more than 30 min on the survey and the other of those who spent less than 30 min on it. The results indicate that there are no significant differences in terms of firm size, type of ownership, auditor type, CFO expertise, experience, and gender as well as their perceptions of the economic conditions that trigger the impairment and of the auditors' ability to detect discretionary GWO.

⁶ Because CFOs were collected through LinkedIn, we assessed that the selection was unbiased. To verify that our results were representative of the population, we benchmarked the demographics of our sample with the global representation of CFOs working at organizations that adopted either IAS/IFRS or US GAAP that were on the Orbis Bureau van Dijk database in July 2020 (59,630). We examined the firms' size in terms of total revenue, number of employees as well as CFO gender and age. The results indicated that, except for age, our sample was representative of the Orbis Bureau van Dijk one. The difference between the two samples' ages (48.8 mean age in our sample and 53.2 in the Orbis Bureau van Dijk one) occurred because our survey was based on responses via LinkedIn and it is likely that this platform is more generally used by younger CFOs.

⁷ Acknowledging that most of the literature is based on listed firms, while our sample is highly representative of private firms, this study substantially equates private and listed companies. Private as well as listed firms have to file annual financial statements, and in this study they also apply the same accounting standards. In this study, both private and listed companies have their financial statements audited, and the tax laws applied to private and listed companies are the same (Ball & Shivakumar, 2005). Some differences between private and listed firms may persist in terms of factors such as ownership, governance, and financing. To this end, we tested for differences among the two CFO groups, and there are no significant differences in the means for CFO expertise (education), experience (age), and gender. There are also no significant differences in their perceptions regarding the economic conditions that trigger the impairment (*EC_perception*) and the auditors' ability to detect a discretionary GWO (*AUD_perception*). Second, we carried out a logit analysis in different groups (listed vs. private companies) and the results were robust (Section 4.3). We stress that the literature on goodwill impairment in listed companies can be applied extensively to private companies in our context. This study is focused on understanding how CFOs perceive the impairment test, regardless of whether they work for a private or a public company.

⁸ Additional demographics of the firms in which respondent CFOs work are available on request.

Table 2
Sample frequencies.

Panel A: Country	N	%
USA	76	21.59%
Italy	69	19.60%
Germany	26	7.39%
Russia	26	7.39%
UK and Ireland	21	5.97%
Israel	17	4.83%
Switzerland	14	3.98%
Brazil	13	3.69%
Ukraine	11	3.13%
France	8	2.27%
Other*	71	20.17%

* "Other" includes all the countries and regions represented with fewer than five responses (Argentina, Armenia, Australia, Austria, Azerbaijan, Belgium, Canada, Czechia, Denmark, Egypt, Greece, Hong Kong, Hungary, Israel, Iraq, Japan, Kazakhstan, Kenya, Lithuania, Luxembourg, Mauritius, Mexico, the Middle East, the Netherlands, Palestine, Poland, Portugal, Qatar, Saudi Arabia, Singapore, Spain, Sri Lanka, Sweden, Tanzania, Thailand, Turkey, United Arab Emirates)

Panel B: Industry	N	%
Agriculture, forestry, fishing	5	1.42%
Construction	18	5.11%
Finance, insurance, real estate	26	7.39%
Manufacturing	97	27.56%
Mining	12	3.41%
Other**	104	29.55%
Retail trade	27	7.67%
Services	35	9.94%
Transportation and public utilities	8	2.27%
Wholesale trade	20	5.68%

** "Other" includes all the industries represented with fewer than five responses or for which the industry was not specified

Panel C: Size	N	%
Total employees: 1 to 50	57	16.19%
Total employees: 51 to 250	61	17.33%
Total employees: 251 to 1000	75	21.31%
Total employees: 1001 or more	159	45.17%
Total assets: (US\$) 500K or less	156	44.32%
Total assets: (US\$) 500.1K to 5 million	103	29.26%
Total assets: (US\$) 5.1 million to 50 million	60	17.05%
Total assets: (US\$) 50.1 million or more	33	9.38%
Total revenue: (US\$) 500K or less	162	46.02%
Total revenue: (US\$) 500.1K to 5 million	107	30.40%
Total revenue: (US\$) 5.1 million to 50 million	54	15.34%
Total revenue: (US\$) 50.1 million or more	29	8.24%

Panel D: Other firms' characteristics	N	%
Listed companies	155	44.03%
International/multinational companies	228	64.77%
Companies audited by a Big Four audit firm	245	80.07%

Panel E: CFO characteristics	N	%
CFOs on the board of directors	165	46.88%
Female CFOs	22	6.25%
Education level: Secondary or high school	8	2.27%
Education level: Undergraduate diploma	7	1.99%
Education level: Bachelors	92	26.14%
Education level: Masters	211	59.94%
Education level: PhD	34	9.66%

only approach and the firm-level characteristics (*GOV*, *DISP*, *MAN*) (Model 2) as well as the country-level impact on a preference for the accounting for goodwill model (*OPTIMISM*) (Model 3). Finally, we added all the explanatory variables by estimating the coefficients in the following full logistic model (Model 4):

$$\hat{P}(IT_preference) = \beta_0 + \beta_1 EXPERTISE + \beta_2 EXPERIENCE + \beta_3 EC_perception + \beta_4 AUD_perception + \beta_5 GOV + \beta_6 DISP + \beta_7 MAN + \beta_8 OPTIMISM + \beta_9 SIZE + \beta_{10} GW + \beta_{11} LIST + \beta_{12} BIG4 + \beta_{13} WHHO + \beta_{14} GENDER + \beta_{15} GAAP + \beta_{16} Country + \beta_{17} Bndustry$$

The dependent variable (*IT_preference*) was coded 1 when CFOs preferred to use the impairment-only approach to goodwill amortization model, and 0 otherwise.

3.2.1. Independent variables

The first hypotheses concern the individual level, including CFO characteristics (*H1a* and *H1b*) and their perceptions (*H2a* and *H2b*). To verify whether CFOs' financial and accounting-related expertise affects their preferences, we performed a factor analysis on the questions relating to CFOs' major subject and extracted one principal component. This component combined majors in accounting, finance, law, and internal and external auditing into a single factor (*EXPERTISE*). CFOs' experience was proxied using the continuous variable represented by their age (*EXPERIENCE*). With reference to CFO perceptions of the impairment of goodwill (as the survey had multiple questions on the relationship between the impairment test and micro/macroeconomic conditions, managerial reporting incentives, ownership composition, and external auditor characteristics), we performed a confirmatory factor analysis. We extracted two underlying common factors that can be useful proxies for Hypotheses 2a and 2b: (1) micro/macroeconomic conditions (*EC_perception*) and (2) external auditor characteristics (*AUD_perception*).

The second group of hypotheses regards the firm-level analysis (*H3*). We examined the dominant shareholder in the capital structure, distinguishing between government (*GOV*), dispersed ownership (*DISP*), and managerial ownership (*MAN*).

Finally, for the analysis on the country level, we separated firms based in countries with an optimistic accounting culture from those in countries with a conservative culture (*OPTIMISM*).

3.2.2. Control variables

We controlled for the size of firms measured in terms of total assets (*SIZE*), for the relevance of the goodwill item in the firm measured as a percentage of the goodwill value to total assets (*GW*), for listed firms (*LIST*), for the type of external auditor (*BIG4*), and for the party that carries out the impairment test in the firm (*WHO*). The model also controlled for CFO gender (*GENDER*) and for the accounting standards used (*GAAP*). Finally, we included industry-fixed (*Industry*) and country-fixed (*Country*) effects.

4. Results

4.1. Descriptive statistics

Table 3 presents each variable's descriptive statistics. The following variables were derived from the factor analysis: *EXPERTISE*, *EC_perception*, and *AUD_perception*.⁹ CFO age (*EXPERIENCE*) is on average 49 years. In terms of firm characteristics, about 25% of

⁹ Descriptive statistics for the separate measures of each aggregated variable are available on request.

Table 3
Means, standard deviations, and correlations.

	Mean	S.D.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
(1) IT_preference	0.649	0.479	1															
(2) EXPERTISE	0.000	0.832	0.12	1														
(3) EXPERIENCE	48.798	11.402	0.08	-0.06	1													
(4) EC_perception	0.000	0.874	0.18**	-0.01	-0.08	1												
(5) AUD_perception	0.000	0.935	0.16**	-0.09	0.02	-0.03	1											
(6) GOV	0.013	0.113	-0.03	0.16***	-0.06	-0.01	1											
(7) DISP	0.364	0.482	0.02	-0.12**	0.04	-0.07	0.11	1										
(8) MAN	0.250	0.434	-0.14*	0.07	-0.02	0.17**	-0.11	-0.09	1									
(9) OPTIMISM	0.247	0.432	-0.00	-0.04	0.20***	-0.04	-0.09	-0.07	-0.43***	1								
(10) SIZE	1.840	1.014	0.10	0.09	0.00	0.03	-0.09	-0.07	0.20***	0.01	1							
(11) GW	3.209	1.849	0.07	0.04	0.13**	-0.07	0.09	-0.08	0.16***	0.00	0.01	1						
(12) LIST	0.442	0.497	0.05	-0.02	0.07	-0.02	0.04	-0.10*	0.00	0.08	0.05	0.25***	1					
(13) BIC4	0.801	0.400	0.05	-0.03	0.03	-0.05	0.19***	-0.09	0.33***	0.03	0.16***	0.35***	0.15***	1				
(14) WHO	2.181	1.135	0.05	0.07	-0.05	0.03	0.00	-0.04	0.01	0.05	-0.14**	-0.00	0.06	0.11*	1			
(15) GENDER	0.063	0.242	0.13*	0.01	-0.18***	0.04	-0.03	-0.03	0.06	-0.02	0.00	0.08	0.07	0.09	-0.05	1		
(16) GAAP	0.179	0.384	-0.07	-0.13**	0.10*	-0.02	-0.10	-0.05	0.13**	-0.04	0.35***	-0.06	-0.01	0.11*	-0.12**	-0.03	1	

***, **, and * indicate significance at the 0.01, 0.05, and 0.10 levels, respectively.

the CFOs worked at organizations with a prevalence of managerial ownership, about 36% at organizations with more dispersed ownership, and only 1.3% at governmental organizations. With reference to the exploratory variables, about 25% worked at a firm based in a country classified as optimist. Regarding the control variables, firms on average had total assets below US\$5 million, while the goodwill value was on average between 1% and 1.5% of total assets. A high number (80.1%) of the sample firms were audited by a Big Four audit firm, only 6.3% had female CFOs, and 17.9% CFOs adopted the US GAAP.

The correlation analysis shows that our dependent variable *IT_preference* was highly correlated with the explanatory variable derived from the combination of CFO perceptions related to the micro/macroeconomic conditions and to the external auditor characteristics. The dependent variable was also negatively correlated with the dominant managerial ownership and positively correlated with CFO gender.

Regarding the correlations of the explanatory variables, the combination of the CFO majoring in accounting- and finance-related studies (*EXPERTISE*) was positively correlated with governmental ownership and negatively with dispersed ownership and the types of accounting standards. CFO experience was negatively correlated with gender and positively with an optimistic accounting culture, with the measure of goodwill, and with types of accounting standards.

The variable on CFO perceptions related to the micro/macroeconomic conditions was also highly correlated with the dominant managerial ownership, whereas the aggregation of the perceptions of the characteristics of external auditors was positively associated with firm size and with the presence of a Big Four auditor.

Moving to the firm level, the explanatory variables related to governmental ownership were negatively correlated with listed companies, while dispersed ownership was positively and highly correlated with an optimist accounting culture, firm size, listed companies, the presence of a Big Four auditor, and the adoption of the US GAAP. It was however negatively correlated with managerial ownership. The latter was positively correlated with a Big Four auditing firm. Finally, an optimistic accounting culture was positively correlated with the types of accounting standards and with listed companies, while it was negatively correlated with who carries out the impairment test.

4.2. Multivariate analysis

The results of the hierarchical logistic analysis supported most of our predictions. In the following subsection, we mainly discuss the results of the full model (Table 4, Panel D). First, we found a positive association between CFOs' preference for impairment and their majoring in accounting- and finance-related studies ($p < 0.05$). H1a was therefore supported – CFOs' accounting, finance, and internal and external auditing expertise make them prefer impairment testing. However, H1b was not supported, as CFOs' experience was only weakly significant in the individual-level model ($p < 0.10$) (Table 4, Panel A) but statistically insignificant in the full model (Table 4, Panel D).

We found a strong positive association between a preference for the impairment-only model and economic conditions ($p < 0.01$) (H2a), suggesting that CFOs' preference is driven by the perception that goodwill impairment reflects the micro- and macroeconomic conditions of firms rather than managerial reporting incentives. We also found strong support for H2b: perceptions of the importance of auditor characteristics to detect the discretionary use of write-offs were positively associated with a preference for impairment testing ($p < 0.01$).

Regarding the firm-level characteristics, we found that in firms

Table 4
Hierarchical logistical analysis of the drivers of CFOs' preference for using the impairment test.

	Panel A Individual level	Panel B Firm level	Panel C Country level	Panel D Full model
EXPERTISE	0.548** (0.238)			0.707** (0.349)
EXPERIENCE	0.041* (0.023)			0.044 (0.027)
EC_perception	0.864*** (0.282)			1.196*** (0.328)
AUD_perception	0.569** (0.255)			0.786*** (0.285)
GOV		15.888*** (1.589)		19.965*** (2.048)
DISP		-1.330** (0.629)		-2.285** (0.933)
MAN		-1.687*** (0.553)		-2.414*** (0.758)
OPTIMISM			2.332* (1.260)	5.509*** (1.522)
SIZE	0.307 (0.217)	0.206 (0.249)	0.292 (0.214)	0.338 (0.287)
GW	0.166 (0.112)	0.239** (0.110)	0.124 (0.104)	0.307** (0.131)
LIST	0.312 (0.443)	0.626 (0.499)	0.111 (0.432)	1.125* (0.610)
BIG4	0.241 (0.674)	0.675 (0.639)	0.318 (0.557)	0.672 (0.690)
WHO	0.398* (0.213)	0.505** (0.254)	0.249 (0.179)	0.701** (0.283)
GENDER	0.350 (0.941)	1.254 (0.988)	0.567 (1.224)	1.250 (1.034)
GAAP	-1.104 (0.745)	-1.217 (0.932)	-1.335* (0.741)	-1.490* (0.825)
Constant	-2.834 (2.398)	-1.235 (2.326)	-0.874 (1.406)	-9.205*** (2.783)
Industry-fixed and country-fixed effects	Included	Included	Included	Included
Observations	151	151	151	151
Pseudo R-squared	0.256	0.225	0.0982	0.360

Standard errors in parentheses.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

with a capital structure dominated by governmental ownership CFOs are more likely to prefer impairment testing ($p < 0.01$), while in capital structures dominated by managerial ownership and dispersed ownership CFOs are less likely to prefer the impairment-only approach ($p < 0.01$ and $p < 0.05$, respectively) (H3).

At the country level, as predicted, the results indicated that the accounting culture plays a significant role. In countries with an optimistic accounting culture, it is more likely that CFOs prefer the impairment-only approach ($p < 0.01$) (H4). The control variables for the relevance of the goodwill value, for listed companies, and for who carries out the impairment procedure were all positively associated with a preference for the impairment-only approach ($p < 0.1$ and $p < 0.05$, respectively), whereas companies adopting US GAAP were less likely to prefer the impairment-only model ($p < 0.1$). Overall, the results were consistent across the models as well as when using robust standard errors.

4.3. Robustness analysis

We acknowledge that the relationship between a preference for the goodwill accounting model and CFO as well as firm characteristics may be endogenous to a preference for the goodwill accounting model. To address this potential endogeneity concern, we

carried out the Heckman two-stage selection model.

In the first step, we took into account the selection bias that may derive from being a listed/private company or from having a long/short tenure as CFO.¹⁰ In this step, the independent variables are the respondents' available relevant characteristics. We therefore regressed the dummy for listed/private company on the type of auditor, the type of ownership, CFO tenure, age, and board participation. When the dependent variable is long/short tenure, the independent variables were CFOs' accounting and finance-related experience, age, gender, the type of auditor, the type of ownership, board participation, and the dummy for listed firms. The residuals of the selection equation were used to construct a selection bias control factor, the Inverse Mills Ratio (IMR), which summarized the effects of all unmeasured characteristics related to a preference for the impairment-only approach.

The second step of the Heckman procedure includes the selection bias control (IMR) as an additional independent variable. As we had a control factor for the effect of the unmeasured characteristics that were also related to a preference for the accounting for goodwill model, the other predictors in the equation were freed from this effect and the regression analysis produced unbiased coefficients for them. Untabulated results of re-estimating Model 4 applying the two-step selection model were similar to those reported in Table 4 Panel D, supporting our conjecture that a

¹⁰ To distinguish between long and short tenure we created a dummy, 1 when CFOs tenure was longer than three years, and 0 otherwise.

preference for the impairment-only approach is associated with CFOs' expertise, experience, and perceptions, as well as with firms' capital structures.¹¹

We also considered another serious issue – underspecifying the model by omitting relevant variables. We therefore formally tested the specification of the dependent variable and, conditional on this specification, that our independent variables were specified correctly. The test failed to reject the null hypothesis where it indicated that no misspecification errors existed, therefore it suggested that there was no need to include or omit variables, and the predicted dependent variable values were largely identical to those of the real dependent variable. The model specification was therefore correct.¹²

Finally, we supplemented our analysis with an additional robustness check, including the separation of the sample between listed and private firms and between small and medium entities (SMEs) and large enterprises.¹³ The results were qualitatively similar to our main findings, indicating that they were not driven by a prevalence of certain types of firms in our sample (see Table 5).

5. Discussion and concluding remarks

At the individual level, this study provides evidence that CFOs' characteristics shape their perceptions of the viability of highly debated accounting issues, such as those related to goodwill accounting. We found a positive association between the likelihood that CFOs prefer to use the impairment-only approach and having an educational background in accounting- and finance-related studies. The results further suggest that CFOs prefer to use the impairment-only approach, perceiving it as carrying a more faithful representation of a firm's financial and economic conditions.

To some extent, CFOs appear confident about the information released with goodwill impairment in contrast to the academic literature, which consistently finds that impairment testing is associated with managerial reporting incentives (e.g. AbuGhazaleh et al., 2011; Beatty & Weber, 2006; Giner & Pardo, 2015). Further, CFOs are confident about external auditors' ability to detect the discretionary use of write-offs, confirming their preference for using the impairment-only approach (Saastamoinen & Pajunen, 2012).

With reference to the firm level, there is evidence that when the dominant shareholder is the government, CFOs are likely to prefer impairment testing. This may indicate that governmental shareholders are perceived as efficient parties for monitoring the manipulation of write-offs. In contrast, when the dominant ownership is managerial or dispersed, CFOs are less likely to prefer the impairment-only model.

At the country level, there is strong support for CFOs in optimistic accounting cultures preferring impairment, as expected.

Theoretically, our contribution is manifold. First, we contribute to the management and accounting literature by providing the perspectives of CFOs as an important stakeholder group. The impairment test of goodwill can be interpreted as the missing link between financial and management accounting (Quagli, 2011). The latter is essential for formulating a firm's strategic and business

plans. When testing for impairments, management cannot disregard matters related to the valuation of a firm's goodwill and intangible values. An understanding of the financial and strategic expertise needed for reporting as well as controlling purposes is therefore essential in any organization.

Second, our study sheds new light on the role corporate governance actors may play in such a topical accounting issue, adding to the literature on the political history of goodwill by showing the current perspective of CFOs besides that of auditors and other managers (Nobes, 1992). CFOs, who jointly with CEOs are most involved in the financial reporting process, perceive that write-offs are influenced by financial and economic conditions and external auditor characteristics. CFOs' managerial perspective may provide clues about when financial reporting reliability is weakened and when replacement and/or complementary corporate governance mechanisms should be employed.

Third, while in the business literature the use of LinkedIn is already entrenched, in the accounting literature it is not widespread yet. We demonstrate the social network's practical use in examining how practitioners perceive accounting, as well as the questions of interest for standard setters.

Finally, this manuscript shows how culture affects the application of controversial standards and it informs policymakers and standard setters on how certain managerial roles (CFOs in our study) can shape accounting conditional to their individual, firm, and cultural aspects.

The conclusiveness of CFOs' preference for the impairment-only approach directly answers the recent debate on reintroducing goodwill amortization (EFRAG, 2019, pp. 1–4; EFRAG, Accounting Standard Board of Japan & Organismo Italiano di Contabilità 2014; IASB, 2020; Lu & Fang, 2019; Scott, 2019). This manuscript contributes timeously to the recently published IASB discussion paper (IASB, 2020) that examines whether to reintroduce goodwill amortization and responds to the question: "Do you agree that the Board should not reintroduce amortization of goodwill? Why or why not?" (IASB, 2020).

The dilemma can be summed up into reintroducing amortization to reduce the cost of performing the impairment test for companies and the need to ensure the usefulness of the information provided through the impairment test. Our results confirm the IASB's preliminary view that it should not reintroduce amortization, but it welcomes any new arguments or evidence on this topic (IASB, 2020, p. 7). Although the responses to our survey indicate that there are difficulties associated with implementing the test, 65% of respondents preferred goodwill impairment testing. However, standard setters should not discount the reality that 35% still prefer the amortization process.

We also provide evidence that preparers' individual characteristics as well as firms' characteristics and countries' accounting cultures influence the preference for an accounting for goodwill model. When evaluating the feedback from all parties on these topics, standard setters should take into account that responses may bear upon CFOs' expertise and perceptions, ownership characteristics, and accounting cultures.

Other parts of the questionnaire are not directly explored in this manuscript, but their descriptive statistics may be valuable. These results indicate several areas in which regulators and standard setters could intervene. For example, about 53% of responding CFOs believe that prohibiting goodwill write-off reversals would lead to untimely and underestimated write-offs. Standard setters should therefore consider the possibility of regarding goodwill as another intangible with an indefinite useful life, or allow reversals under certain conditions. An interesting point of view is on the role of external auditors. We can infer that CFOs are convinced of the

¹¹ The results of the second step are available on request.

¹² To mitigate concerns, we carried out the 'linktest' with Stata. Even though the results alleviate our concerns, we are aware that the 'linktest' may be a limited tool to detect specification errors. Nonetheless, our concerns are further alleviated by the presence of several corporate governance variables, for example those related to the type of ownership. We also controlled for the external auditor as well as for the people who carry out the impairment test and for CFO gender.

¹³ We used the European Union's definition of an SME (2015) to classify SMEs and large enterprises.

Table 5
Robustness analysis: Hierarchical logistical analysis of the drivers of CFOs' preference for using the impairment test in private/listed firms and in SMEs/large enterprises.

	Panel A	Panel B	Panel C	Panel D
	Private firms	Listed firms	SMEs	Large enterprises
<i>EXPERTISE</i>	1.281** (0.589)	0.952*** (0.333)	0.801** (0.389)	0.081 (0.352)
<i>EXPERIENCE</i>	0.075 (0.053)	0.064* (0.037)	0.033 (0.030)	0.056 (0.038)
<i>EC_perception</i>	1.801*** (0.599)	1.194*** (0.326)	1.371*** (0.448)	1.026** (0.431)
<i>AUD_perception</i>	0.656 (0.435)	0.862*** (0.332)	0.752** (0.348)	1.478* (0.803)
<i>GOV</i>	18.101*** (2.972)	20.351*** (2.344)	18.762*** (2.146)	18.524*** (2.085)
<i>DISP</i>	-3.885*** (1.224)	-1.552 (0.984)	-2.644** (1.184)	-2.980 (2.073)
<i>MAN</i>	-5.016*** (1.203)	-1.610** (0.779)	-2.701*** (0.819)	-2.708** (1.292)
<i>OPTIMISM</i>	21.466*** (3.002)	5.063*** (1.643)	4.769*** (1.769)	7.472*** (2.731)
<i>SIZE</i>	1.235 (0.837)	0.408 (0.296)	0.575 (0.444)	0.158 (0.366)
<i>GW</i>	0.631*** (0.234)	0.360** (0.169)	0.340** (0.145)	0.399** (0.195)
<i>LIST</i>			1.234* (0.666)	1.600 (1.147)
<i>BIG4</i>	1.119 (1.021)	0.391 (0.830)	0.623 (0.725)	0.758 (0.897)
<i>WHO</i>	0.819* (0.490)	0.514* (0.292)	0.616** (0.295)	0.936** (0.420)
<i>GENDER</i>	0.503 (0.849)	0.787 (1.076)	1.432 (1.053)	1.823 (1.181)
<i>GAAP</i>	-17.539*** (2.054)	-1.161 (0.824)	-1.321 (0.919)	-2.681** (1.176)
Constant	6.908* (3.837)	-9.482*** (2.880)	-8.729*** (3.163)	-10.258* (5.277)
Industry-fixed and country-fixed effects	Included	Included	Included	Included
Observations	77	47	83	68
Pseudo R-squared	0.457	0.361	0.364	0.375

Standard errors in parentheses.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

importance of auditor expertise in the industry and in the task of assessing write-offs. Regulators should therefore improve auditor requirements to assess these measurements. CFOs also perceive mandatory auditor rotation in constraining write-off manipulation as important.

Further interesting responses indicate that more than half of participants reflected on alternative ways to account for goodwill that could provide more useful information. Almost half of them indicated the importance of requiring additional disclosure. This result should be pondered, reflecting on the evidence from prior research relating to the constrained usefulness of the impairment-only approach when the information in notes is insufficient (Schatt, Doukakis, Bessieux-Ollier, & Walliser, 2016). This corroborates the idea that developing more evidence-informed standards can increase disclosure levels, which will mitigate estimation risk (Mazzi, André, Dionysiou, & Tsalavoutas, 2017).

This work has a few limitations. First, CFOs may have responded by simply repeating what they have learned at business schools and in training courses, without expressing their real perceptions. Second, we could not avoid auto-selection bias, as the email about participating in the survey was sent only to CFOs who accepted our LinkedIn connection request. The triangulation of our sample relieves us from this concern. Third, information such as firm size is based on categories rather than on continuous variables, because we opted for simplicity with CFOs completing the questionnaire.

Despite these limitations, our results provide guidelines for academics, standard setters, and practitioners by offering another

perspective of earnings management practices through the manipulation of goodwill write-offs, adding to the extant literature and providing new paths for future studies. Such studies could methodologically enrich our results by directly interviewing CFOs to deepen perspectives or forming focus groups to discuss the most contested questions.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.emj.2021.03.001>.

References

AbuGhazaleh, N. M., Al-Hares, O. M., & Roberts, C. (2011). Accounting discretion in

- goodwill impairments: UK evidence. *Journal of International Financial Management & Accounting*, 22, 165–204.
- Aier, J. K., Comprix, J., Gunlock, M. T., & Lee, D. (2005). The financial expertise of CFOs and accounting restatements. *Accounting Horizons*, 19, 123–135.
- Anderson, R. C., & Reeb, D. M. (2004). Board composition: Balancing family influence in S&P 500 firms. *Administrative Science Quarterly*, 49, 209–237.
- André, P., Filip, A., & Paugam, L. (2016). Examining the patterns of goodwill impairments in Europe and the US. *Accounting in Europe*, 13, 329–352.
- Badolato, P. G., Donelson, D. C., & Ege, M. (2014). Audit committee financial expertise and earnings management: The role of status. *Journal of Accounting and Economics*, 58, 208–230.
- Ball, R., & Shivakumar, L. (2005). Earnings quality in UK private firms: Comparative loss recognition timeliness. *Journal of Accounting and Economics*, 39, 83–128.
- Barghathi, Y., Collison, D., & Crawford, L. (2018). Earnings management and audit quality: Stakeholders' perceptions. *Journal of Management & Governance*, 22, 629–659.
- Baxter, J., & Chua, W. F. (2008). Be(com)ing the chief financial officer of an organisation: Experimenting with Bourdieu's practice theory. *Management Accounting Research*, 19, 212–230.
- Beattie, V., Fearnley, S., & Hines, T. (2013). Perceptions of factors affecting audit quality in the post-SOX UK regulatory environment. *Accounting and Business Research*, 43, 56–81.
- Beatty, A., Ramesh, K., & Weber, J. (2002). The importance of accounting changes in debt contracts: The cost of flexibility in covenant calculations. *Journal of Accounting and Economics*, 33, 205–227.
- Beatty, A., & Weber, J. (2006). Accounting discretion in fair value estimates: An examination of SFAS 142 Goodwill Impairments. *Journal of Accounting Research*, 44, 257–288.
- Bishop, C. C., DeZoort, F. T., & Hermanson, D. R. (2017). The effect of CEO social influence pressure and CFO accounting experience on CFO financial reporting decisions. *Auditing: A Journal of Practice & Theory*, 36, 21–41.
- Bloom, M. (2009). Accounting for goodwill. *Abacus*, 45, 379–389.
- Bouvatier, V., Lepetit, L., & Strobel, F. (2014). Bank income smoothing, ownership concentration and the regulatory environment. *Journal of Banking & Finance*, 41, 253–270.
- Brav, A., Graham, J. R., Harvey, C. R., & Michaely, R. (2005). Payout policy in the 21st century. *Journal of Financial Economics*, 77, 483–527.
- Chi, W., & Huang, H. (2005). Discretionary accruals, audit-firm tenure and audit-partner tenure: Empirical evidence from Taiwan. *Journal of Contemporary Accounting and Economics*, 1, 65–92.
- Copeland, T. E. (2001). The expanding role of the CFO. <https://ssrn.com/abstract=717703>.
- Cornett, M. M., McNutt, J. J., & Tehranian, H. (2009). Corporate governance and earnings management at large U.S. bank holding companies. *Journal of Corporate Finance*, 15, 412–430.
- Darrrough, M. N., Guler, L., & Wang, P. (2014). Goodwill impairment losses and CEO compensation. *Journal of Accounting, Auditing and Finance*, 29, 435–463.
- Davidson, W. N., III, Jiraporn, P., & Dadalt, P. J. (2006). Causes and consequences of audit shopping: An analysis of auditor opinions, earnings management, and auditor changes. *Quarterly Journal of Business & Economics*, 45, 69–87.
- Davidson, W. N., III, Xie, B., & Xu, W. (2004). Market reaction to voluntary announcements of audit committee appointments: The effect of financial expertise. *Journal of Accounting and Public Policy*, 23, 279–293.
- DeAngelo, L. E. (1981). Auditor size and audit quality. *Journal of Accounting and Economics*, 3, 183–199.
- Dechow, P., Ge, W., & Schrand, C. (2010). Understanding earnings quality: A review of the proxies, their determinants and their consequences. *Journal of Accounting and Economics*, 50, 344–401.
- DeFond, M. L., Lim, C. Y., & Zang, Y. (2012). Do auditors value client conservatism? University of Southern California. Singapore Management University.
- Dichev, I. D., Graham, J. R., Harvey, C. R., & Rajgopal, S. (2013). Earnings quality: Evidence from the field. *Journal of Accounting and Economics*, 56, 1–33.
- Ding, Y., Jeanjean, T., & Stolowy, H. (2005). Why do national GAAP differ from IAS? The role of culture. *The International Journal of Accounting*, 40, 325–350.
- Ding, Y., Richard, J., & Stolowy, H. (2008). Towards an understanding of the phases of goodwill accounting in four Western capitalist countries: From stakeholder model to shareholder model. *Accounting, Organizations and Society*, 33, 718–755.
- Ding, Y., Zhang, H., & Zhang, J. (2007). Private vs state ownership and earnings management: Evidence from Chinese listed companies. *Corporate Governance: An International Review*, 15, 223–238.
- Doupnik, T. S. (2008). Influence of culture on earnings management: A note. *Abacus*, 44, 317–340.
- Dyck, A., & Zingales, L. (2004). Private benefits of control: An international comparison. *The Journal of Finance*, LIX, 537–600.
- D'Arcy, A., & Tarca, A. (2018). Reviewing IFRS goodwill accounting research: Implementation effects and cross-country differences. *The International Journal of Accounting*, 53, 203–226.
- EFRAG. (2014). Accounting standard board of Japan, & Organismo Italiano di Contabilità. *In Should goodwill still not be amortised? Accounting and disclosure for goodwill*.
- EFRAG. (2019). *Summary of FASB invitation to comment on identifiable Intangible and subsequent Accounting for goodwill*.
- Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. *The Journal of Law and Economics*, 26, 301–325.
- Feng, M., Ge, W., Luo, S., & Shevlin, T. (2011). Why do CFOs become involved in material accounting manipulations? *Journal of Accounting and Economics*, 51, 21–36.
- Ferramosca, S., Greco, G., & Allegrini, M. (2017). External audit and goodwill write-off. *Journal of Management & Governance*, 21, 907–934.
- Fields, T. D., Lys, T. Z., & Vincent, L. (2001). Empirical research on accounting choice. *Journal of Accounting and Economics*, 31, 255–307.
- Firk, S., Schmidt, T., & Wolff, M. (2019). CFO emphasis on value-based management: Performance implications and the challenge of CFO succession. *Management Accounting Research*, 44, 26–43.
- Francis, J., Hanna, J. D., & Vincent, L. (1996). Causes and effects of discretionary asset write-offs. *Journal of Accounting Research*, 34, 117–134.
- Geiger, M. A., & North, D. S. (2006). Does hiring a new CFO change things? An investigation of changes in discretionary accruals. *The Accounting Review*, 81, 781–809.
- Ge, W., Matsumoto, D., & Zhang, J. L. (2011). Do CFOs have style? An empirical investigation of the effect of individual CFOs on accounting practices. *Contemporary Accounting Research*, 28, 1141–1179.
- Giner, B., & Pardo, F. (2015). How ethical are managers' goodwill impairment decisions in Spanish-listed firms? *Journal of Business Ethics*, 132, 21–40.
- Globocnik, D., Faullant, R., & Parastuty, Z. (2019). Bridging strategic planning and business model management – a formal control framework to manage business model portfolios and dynamics. *European Management Journal*, 38, 231–243.
- Godfrey, J. M. (2006). Bonus-induced accounting. *Critical Perspectives on Accounting*, 17, 827.
- Godfrey, J. M., & Koh, P.-S. (2009). Goodwill impairment as a reflection of investment opportunities. *Accounting and Finance*, 49, 117–140.
- Gordon, E. A., Gotti, G., Ho, J. H., Mora, A., & Morris, R. D. (2019). Commentary: Where is international accounting research going? Issues needing further investigation. *Journal of International Accounting, Auditing and Taxation*, 37.
- Gore, P., Taib, F. M., & Taylor, P. A. (2000). Accounting for goodwill: An examination of factors influencing management preferences. *Accounting and Business Research*, 30, 213–225.
- Goretzki, L., Strauss, E., & Weber, J. (2013). An institutional perspective on the changes in management accountants' professional role. *Management Accounting Research*, 24, 41–63.
- Graham, J., & Harvey, C. (2002). How do CFOs make capital budgeting and capital structure decisions? *The Journal of Applied Corporate Finance*, 15, 8–23.
- Graham, J. R., Harvey, C. R., & Puri, M. (2015). Capital allocation and delegation of decision-making authority within firms. *Journal of Financial Economics*, 115, 449–470.
- Graham, J. R., Harvey, C. R., & Rajgopal, S. (2005). The economic implications of corporate financial reporting. *Journal of Accounting and Economics*, 40, 3–73.
- Gray, S. J. (1988). Towards a theory of cultural influence on the development of accounting systems internationally. *Abacus*, 24, 1–15.
- Greco, G., Ferramosca, S., D'Onza, G., & Causholli, M. (2017). Industry specific and task specific auditing expertise: The case of goodwill impairment. <https://ssrn.com/abstract=3056459>.
- Gupta, V. K., Mortal, S., Chakrabarty, B., Guo, X., & Turban, D. B. (2020). CFO gender and financial statement irregularities. *Academy of Management Journal*, 63, 802–831.
- Hambrick, D. C. (2007). Upper echelons theory: An update. *Academy of Management Review*, 32, 334–343.
- Hambrick, D. C., & Finkelstein, S. (1987). Managerial discretion: A bridge between polar views of organizational outcomes. *Research in Organizational Behavior*, 9, 369–406.
- Hambrick, D. C., Finkelstein, S., & Mooney, A. (2005). Executive job demands: New insights for explaining strategic decisions and leader behaviors. *Academy of Management Review*, 30, 472–491.
- Hambrick, D. C., & Mason, P. A. (1984). Upper echelons: The organization as a reflection of its top managers. *Academy of Management Review*, 9, 193–206.
- Hiebl, M. R. W. (2014). Upper echelons theory in management accounting and control research. *Journal of Management Control*, 24, 223–240.
- Hogan, C. E., & Wilkins, M. S. (2008). Evidence on the audit risk model: Do auditors increase audit fees in the presence of internal control deficiencies? *Contemporary Accounting Research*, 25, 219–242.
- Holthausen, R. W., & Watts, R. L. (2001). The relevance of the value-relevance literature for financial accounting standard setting. *Journal of Accounting and Economics*, 31, 3–75.
- Hossain, S., & Monroe, G. S. (2015). Chief financial officers' short- and long-term incentive-based compensation and earnings management. *Australian Accounting Review*, 25, 279–291.
- Huikku, J., Mouritsen, J., & Silvola, H. (2017). Relative reliability and the recognisable firm: Calculating goodwill impairment value. *Accounting, Organizations and Society*, 56, 68–83.
- Hunter, L., Webster, E., & Wyatt, A. (2012). Accounting for expenditure on intangibles. *Abacus*, 48, 104–145.
- Indjejikian, R., & Matějka, M. (2009). CFO fiduciary responsibilities and annual bonus incentives. *Journal of Accounting Research*, 47, 1061–1093.
- International Accounting Standards Board. (2020). *Business combinations – disclosures, goodwill and impairment*. Discussion paper DP/2020/1.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3, 305–360.
- Jiang, J., Petroni, K. R., & Yanyan Wang, I. (2010). CFOs and CEOs: Who have the most

- influence on earnings management? *Journal of Financial Economics*, 96, 513–526.
- Jiang, F., Zhu, B., & Huang, J. (2013). CEO's financial experience and earnings management. *Journal of Multinational Financial Management*, 23, 134–145.
- Johansson, S.-E., Hjelström, T., & Hellman, N. (2016). Accounting for goodwill under IFRS: A critical analysis. *Journal of International Accounting, Auditing and Taxation*, 27, 13–25.
- Johnson, V. E., Khurana, I. K., & Reynolds, K. J. (2002). Audit-firm tenure and the quality of financial reports. *Contemporary Accounting Research*, 4.
- Kaplan, S. E., Samuels, J. A., & Thorne, L. (2009). Ethical norms of CFO insider trading. *Journal of Accounting and Public Policy*, 28, 386–400.
- Klein, A. (1998). Firm performance and board committee structure. *The Journal of Law and Economics*, XLI, 275–303.
- Krishnan, G. V. (2003). Does Big 6 auditor industry expertise constrain earnings management? *Accounting Horizons*, 17, 1–16.
- Kvaal, E., & Nobes, C. (2012). IFRS policy changes and the continuation of national patterns of IFRS practice. *European Accounting Review*, 21, 343–371.
- Lee, C. (2011). The effect of SFAS 142 on the ability of goodwill to predict future cash flows. *Journal of Accounting and Public Policy*, 30, 236–255.
- Leuz, C., Nanda, D., & Wysocki, P. D. (2003). Earnings management and investor protection: An international comparison. *Journal of Financial Economics*, 69, 505–527.
- Li, K. K., & Sloan, R. G. (2017). Has goodwill accounting gone bad? *Review of Accounting Studies*, 22, 964–1003.
- Lo, A. W. Y., Wong, R. M. K., & Firth, M. (2010). Can corporate governance deter management from manipulating earnings? Evidence from related-party sales transactions in China. *Journal of Corporate Finance*, 16, 225–235.
- Lu, J., & Fang, D. (2019). *Better information about business combinations. Goodwill and impairment project. In World Standard-setters Conference.*
- Masters-Stout, B., Costigan, M. L., & Lovata, L. M. (2008). Goodwill impairments and chief executive officer tenure. *Critical Perspectives on Accounting*, 19, 1370–1383.
- Mazzi, F., André, P., Dionysiou, D., & Tsalavoutas, I. (2017). Compliance with goodwill-related mandatory disclosure requirements and the cost of equity capital. *Accounting and Business Research*, 47, 268–312.
- Mazzi, F., Liberatore, G., & Tsalavoutas, I. (2016). Insights on CFOs' perceptions about impairment testing under IAS 36. *Accounting in Europe*, 13, 353–379.
- Mazzi, F., Slack, R., & Tsalavoutas, I. (2018). The effect of corruption and culture on mandatory disclosure compliance levels: Goodwill reporting in Europe. *Journal of International Accounting, Auditing and Taxation*, 31, 52–73.
- McClelland, P. L., & O'Brien, J. P. (2011). Transaction cost economics and corporate governance: The case of CEO age and financial stake. *Managerial and Decision Economics*, 32, 141–158.
- McEnroe, J. E. (2007). Perceptions of the effect of Sarbanes-Oxley on earnings management practices. *Research in Accounting Regulation*, 19, 137–157.
- Mian, S. (2001). On the choice and replacement of chief financial officers. *Journal of Financial Economics*, 60, 143–175.
- Mukherjee, T. K., Kiyamaz, H., & Baker, H. K. (2004). Merger motives and target valuation: A survey of evidence from CFOs. *Journal of Applied Finance*, 14, 7–24.
- Nobes, C. W. (1983). A judgemental international classification of financial reporting practices. *Journal of Business Finance & Accounting*, 10, 1–19.
- Nobes, C. (1992). A political history of goodwill in the U.K.: An illustration of cyclical standard setting. *Abacus*, 28.
- North, D. C. (1990). *Institutions, institutional change and economic performance*. Cambridge: Cambridge University Press.
- Olson, M. (1993). Dictatorship, democracy, and development. *American Political Science Review*, 87, 567–576.
- Pajunen, K., & Saastamoinen, J. (2013). Do auditors perceive that there exists earnings management in goodwill accounting under IFRS?: Finnish evidence. *Managerial Auditing Journal*, 28, 245–260.
- Perera, H. (1994). Culture and international accounting: Some thoughts on research issues and prospects. *Advances in International Accounting*, 7, 267–285.
- Petersen, C., & Plenborg, T. (2010). How do firms implement impairment tests of goodwill? *Abacus*, 46, 419–446.
- Quagli, A. (2011). *Goodwill accounting as a missing link between financial and management accounting: Literature review and research agenda*. Financial reporting.
- Ramanna, K. (2008). The implications of unverifiable fair-value accounting: Evidence from the political economy of goodwill accounting. *Journal of Accounting and Economics*, 45, 253–281.
- Ramanna, K., & Watts, R. L. (2012). Evidence on the use of unverifiable estimates in required goodwill impairment. *Review of Accounting Studies*, 17, 749–780.
- Rees, L., Gill, S., & Gore, R. (1996). An investigation of asset write-downs and concurrent abnormal accruals. *Journal of Accounting Research*, 34, 157–169.
- Riedl, E. J. (2004). An examination of long-lived asset impairments. *The Accounting Review*, 79, 823–852.
- Saastamoinen, J., & Pajunen, K. (2012). Goodwill impairment losses as managerial choices. Available at SSRN: <https://ssrn.com/abstract=2000690>.
- Schatt, A., Doukakakis, L., Bessieux-Ollier, C., & Walliser, E. (2016). Do goodwill impairments by European firms provide useful information to investors? *Accounting in Europe*, 13, 307–327.
- Schmid, S., & Altfeld, F. (2018). International work experience and compensation: Is more always better for CFOs? *European Management Journal*, 36, 530–543.
- Scott, T. (2019). *Better information about business combinations. Goodwill and impairment: Project update*. IFRS. <https://cdn.ifrs.org/-/media/project/goodwill-and-impairment/in-brief-goodwill-and-impairment-factsheet.pdf?1a=en>.
- Shleifer, A. (1998). State versus private ownership. *The Journal of Economic Perspectives*, 12, 133–150.
- Shuto, A. (2007). Executive compensation and earnings management: Empirical evidence from Japan. *Journal of International Accounting, Auditing and Taxation*, 16, 1–26.
- Smith, M. (2003). *Research methods in accounting*. London: SAGE Publications.
- Srinidhi, B. N., & Gul, F. A. (2007). The differential effects of auditors nonaudit and audit fees on accrual quality. *Contemporary Accounting Research*, 24, 595–629.
- Stevens, J. M., Steensma, H. K., Harrison, D. A., & Cochran, P. L. (2005). Symbolic or substantive document? The influence of ethics codes on financial executives' decisions. *Strategic Management Journal*, 26, 181–195.
- Tsalavoutas, I., André, P., & Dionysiou, D. (2014). Worldwide application of IFRS 3, IAS 38 and IAS 36, related disclosures, and determinants of non-compliance. Available at SSRN: <https://ssrn.com/abstract=2603572> ACCA Research Report 134.
- Union, E. (2015). *User guide to the SME definition*.
- Von den Driesch, T., Da Costa, M. E. S., Flatten, T. C., & Brettel, M. (2015). How CEO experience, personality, and network affect firms' dynamic capabilities. *European Management Journal*, 33, 245–256.
- Wallace, W. (2000). The value relevance of accounting: The rest of the story. *European Management Journal*, 18, 675–682.
- Wang, X. U. E. (2010). Increased disclosure requirements and corporate governance decisions: Evidence from chief financial officers in the pre- and post-Sarbanes-Oxley periods. *Journal of Accounting Research*, 48, 885–920.
- Warfield, T. D., Wild, J. J., & Wild, K. L. (1995). Managerial ownership, accounting choices, and informativeness of earnings. *Journal of Accounting and Economics*, 20, 61–91.
- Watts, R. L., & Zimmerman, J. L. (1981). Unpublished work. In *The markets for independence and independent auditors*. New York: University of Rochester.
- Weetman, P. (2018). Financial reporting in Europe: Prospects for research. *European Management Journal*, 36, 153–160.
- Wen, H., & Moehrl, S. R. (2016). Accounting for goodwill: An academic literature review and analysis to inform the debate. *Research in Accounting Regulation*, 28, 11–21.
- Xianhui, B., & Liansheng, W. (2009). The governance roles of state-owned controlling and institutional investors: A perspective of earnings management. *Economic Research Journal*, 2, 008.
- Yin, R. K. (2013). *Case study research: Design and methods*. Thousand Oaks: Sage publications.
- Zorn, D. M. (2004). Here a chief, there a chief: The rise of the CFO in the American firm. *American Sociological Review*, 69, 345–364.



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