Abstract:
Since the beginning of the 21st century, the fundamental concepts of group reporting have been revised substantially by the International Accounting Standards Board. Until now, International Financial Reporting Standards (IFRS) which were introduced with the aim to increase the transparency and comparability of consolidated financial statements have been applied mandatorily for about ten years in the European Union. These important developments frame the research context of this dissertation. Based on a comprehensive introduction into the conceptual fundamentals of group reporting under IFRS, the first part of the dissertation deals with the standards IFRS 10, IFRS 11 and, in particular, IAS 28 (revised 2011) which have recently been issued. Besides, the first part contributes to the ongoing debate on the subsequent accounting for goodwill acquired in a business combination. The second part of the dissertation examines issues related to the comparability and transparency of financial reporting under IFRS. In particular, comparability is assessed by analyzing classification choices in the statement of cash flows. Finally, the effects of the IFRS adoption on two dimensions of financial reporting transparency, earnings management and disclosure quality, are examined. In summary, the dissertation aims to further our understanding regarding recent conceptual developments as well as the achievement of comparability and transparency of group reporting under IFRS.
Current Conceptual and Empirical Issues in Group Reporting Under IFRS

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I. CURRENT CONCEPTUAL AND EMPIRICAL ISSUES IN GROUP REPORTING UNDER IFRS – OVERVIEW OF THE DISSERTATION

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CURRENT CONCEPTUAL AND EMPIRICAL ISSUES IN GROUP REPORTING UNDER IFRS –
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1 Introduction to the Research Context

International Financial Reporting Standards (IFRS)¹ are continuously on the rise. To date, IFRS are to be applied mandatorily by firms in more than 100 jurisdictions (IFRS Foundation, 2015a).² A major milestone of the success of IFRS was achieved in 2002 when the so-called “IAS-Regulation” (Regulation (EC) No. 1606/2002) was issued. This regulation generally requires European firms that are listed on a regulated market in the EU to prepare their consolidated financial statements according to IFRS for financial years starting on or after January 1, 2005.³ The introduction of IFRS for group reporting purposes is based on the following goal as stated in the IAS-Regulation:

“This Regulation has as its objective the adoption and use of international accounting standards in the Community with a view to harmonising the financial information presented by the companies referred to in Article 4 in order to ensure a high degree of transparency and comparability of financial statements and hence an efficient functioning of the Community capital market and of the Internal Market.” (Regulation (EC) No. 1606/2002, Article 1).

Accordingly, two goals have been formulated which are directly related to financial reporting; higher transparency and comparability. Achieving them should improve the functioning of capital markets and, thereby, foster macroeconomic

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¹ In this chapter, the abbreviation IFRS refers to the accounting standards developed by the International Accounting Standards Board (IASB) or its predecessor, the International Accounting Standards Committee (IASC) as well as the related SIC/IFRIC interpretations. Accounting standards that were issued by the IASC are called International Accounting Standards (IAS).

² For information about specific countries see IFRS Foundation (2015b).

developments (Brüggemann et al., 2013). The adoption of IFRS around the world has stimulated a large body of literature examining the effects of the regulatory change with regard to the quality of financial reporting. However, important questions are not yet conclusively answered (Singleton-Green, 2015). One factor which contributes to the continuing demand for research on the effects of the adoption of IFRS is time. In particular, as pointed out by Barth (2008, p. 1174), “[b]ecause application of IFRS became widespread only beginning in 2005, it is possible that any assessment of its quality could be affected by transition or learning effects.” In many cases, prior research inevitably had to focus on relatively short periods after the introduction of IFRS. Thus, more research regarding the longer-term effects of IFRS adoption is needed (Callao and Jarne, 2010; Singleton-Green, 2015).

IFRS is intended to be a set of high quality accounting standards with the potential to be applied consistently around the globe (IFRS Foundation, 2015a). Therefore, it is not surprising that IFRS have been subject to ongoing change intended to improve financial reporting quality. The last decade has seen several major changes with regard to group reporting. First, the accounting for business combinations has been addressed with the issuance and amendment of IFRS 3 Business Combinations in 2004 and 2008, respectively. Important and contentious changes include the abolishment of the pooling of interests method and the introduction of the so-called impairment-only approach for the subsequent accounting for good-

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4 See, for example, Soderstrom and Sun (2007) and Brüggemann et al. (2013) for reviews of the literature related to voluntary and mandatory adoption of IFRS, respectively, as well as Singleton-Green (2015) for an extensive up-to-date review of the empirical research on the effects of mandatory IFRS adoption in the EU.

5 In a similar vein, Brüggemann et al. (2013, p. 22) state that the results of research related to IFRS adoption “could simply be artefacts of the short history of mandatory IFRS adoption, reflecting a combination of idiosyncratic, transitory effects of first-time adoption and low statistical power due to relatively short analysis periods.”
will. Under this approach, acquired goodwill is not amortized over its useful life but rather tested (at least) annually for impairment.

In 2013, the International Accounting Standards Board (IASB) started to assess the effects of the application of the new standard on business combinations during its Post-implementation Review (PIR) on IFRS 3. As a result of the PIR, the IASB identified two areas of all business combinations issues discussed as being of higher significance (IASB, 2015a): (1) the ineffectiveness and complexity of goodwill impairment tests and (2) the subsequent accounting for goodwill, i.e. the benefits of the impairment-only approach compared to regular amortization plus impairment tests when there are indicators that goodwill might be impaired. Consequently, in February 2015, the IASB decided to add research projects on these issues to its research agenda (IASB, 2015b).

Fundamental to the definition of a business combination as well as to the definition of the group and, thus, consolidated financial statements is the principle of control which has also been revised recently. In May 2011, the IASB issued a package of new standards with revised fundamental concepts regarding the accounting for investments. In particular, IFRS 10 Consolidated Financial Statements introduced a new approach to determining a parent-subsidiary relationship which is solely based on the principle of control. Additionally, IFRS 11 Joint Arrangements sets out new principles for the identification of and accounting for joint arrangements. At the same time, the IASB issued a revised version of IAS 28 Accounting for Associates and Joint Ventures as well as a standard containing the

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6 A business combination is “[a] transaction or other event in which an acquirer obtains control of one or more businesses” (IFRS 3, Appendix A).

7 Consolidated financial statements are “[t]he financial statements of a group in which the assets, liabilities, equity, income, expenses and cash flows of the parent and its subsidiaries are presented as those of a single economic entity” (IFRS 10, Appendix A). IFRS 10, Appendix A further defines a parent as an entity which controls at least one entity and a subsidiary as an entity being controlled by another entity.
disclosure requirements with regard to the parent company’s investments (IFRS 12 Disclosure of Interests in other Entities).

In summary, in the last decade, the fundamental concepts of group reporting, namely the accounting for the parent company’s investments including acquisition accounting, have been revised substantially. Furthermore, being introduced with the aim to increase the transparency and comparability of consolidated financial statements, IFRS have now been applied mandatorily for about ten years in the EU. These important developments frame the research context of this dissertation under the title Current Conceptual and Empirical Issues in Group Reporting under IFRS.

The dissertation is based on five manuscripts that aim to further our understanding regarding the conceptual developments described above as well as the achievement of comparability and transparency of group reporting under IFRS. Accordingly, the dissertation is divided into two major parts (see Figure 1). In a first part, the manuscripts A, B, and C (Chapters II to IV) focus on current conceptual issues in group reporting under IFRS: the newly issued standards IFRS 10, IFRS 11, and IAS 28 (revised) as well as the subsequent accounting for goodwill which is going to be reconsidered as a result of the recent PIR on IFRS 3. In the second part of this dissertation, issues related to the comparability (Manuscript D, Chapter V) and transparency (Manuscript E, Chapter VI) of financial reporting under IFRS are examined empirically.
As a foundation to this dissertation, Manuscript A “The Success Story of International Additives Producer AG – A Case Study on Categorization of Investments under IFRS” provides a comprehensive introduction into the conceptual fundamentals of group reporting under IFRS. In particular, the categorization of investments on the basis of the degree of the investor’s influence over the investee according to the recently issued standards IFRS 10, IFRS 11 and IAS 28 (revised 2011) is explained. Subsequently, the application of the new standards is illustrated. Moreover, the manuscript highlights the consequences of investment categorization with regard to the accounting treatment to be applied in the investor’s consolidated financial statements as well as related managerial incentives and disclosure requirements. This case study makes a contribution to the literature in the field of accounting education.
Manuscript B “Die Bilanzierung von Beteiligungen an assoziierten Unternehmen sowie Gemeinschaftsunternehmen auf der Basis des überarbeiteten IAS 28 – Implikationen der Neuerungen für die Bilanzierungspraxis” further explores the revised version of IAS 28 *Accounting for Associates and Joint Ventures* (revised 2011). Unlike the new standards IFRS 10, IFRS 11 and IFRS 12 that have been issued at the same time, the changes made to IAS 28 (revised 2011) received relatively little attention in the literature. This is especially remarkable in light of the extent to which recent exposure drafts\(^8\) which contained amendments to this standard have been discussed in the literature (e.g. Fischer and Pronobis, 2013; Stibi, 2013; Hayn and Hayn, 2013; Schmidt, 2013; Holzwarth, 2013). Therefore, the comprehensive review of the revisions to IAS 28 (revised 2011) provided by manuscript B adds to the literature on the accounting for associates and joint ventures. The analysis shows that the amendments to IAS 28 go beyond editorial changes and have the potential to materially affect the accounting for associates and joint ventures. The manuscript further highlights ongoing discussions about the further development of IAS 28 at the time of publication of this paper.

Besides the conceptual issues examined in the first two manuscripts, the third manuscript focuses on one of the most widely debated issues in group reporting; the subsequent accounting for goodwill acquired in a business combination. About ten years after the introduction of the impairment-only approach in 2004, the IASB conducted its PIR on IFRS 3 *Business Combinations* and, thereby, reopened the debate on goodwill accounting. As described above, during the PIR,

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\(^8\) For the two exposure drafts regarding amendments to IAS 28 (revised 2011) which have been issued a short time after the issuance of the standard and have also been presented in manuscript B see IASB (2012a) and IASB (2012b).
the subsequent accounting for goodwill as well as the impairment test have been found to be the most significant issues in accounting for business combinations.

Manuscript C “10 Years Impairment-only Approach – Stakeholder Perceptions and Research Findings” contributes to the current debate on goodwill accounting by assessing the effects of the introduction of the impairment-only approach from two perspectives. First, the perceptions of various stakeholders are examined by analyzing comment letters received by the IASB in response to the formal Request for Information during the recent PIR. Second, a systematic review of related academic literature is provided. Importantly, the paper provides an analysis which is not subject to self-evaluation concerns. The paper finds that stakeholders’ views about the usefulness of the information provided by the impairment test are mixed, while they share concerns about the cost-benefit relation and the degree of discretion involved in the tests. Academic research tends to support the conjecture that the impairment-only approach increases the usefulness of financial reporting. However, the concerns expressed about subjectivity and managerial discretion are supported by a number of academic studies. On this basis, the manuscript derives some suggestions for the further development of subsequent goodwill accounting.

The second part of the dissertation covers issues related to the comparability and transparency of financial reporting under IFRS. With regard to comparability of IFRS financial statements, a number of studies examined accounting policy choices of firms from various countries (e.g. Kvaal and Nobes, 2010; Kvaal and Nobes, 2012; Haller and Wehrfritz, 2013; Nobes and Stadler, 2013). In general,

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9 Ewert and Wagenhofer (2012) encourage academics to contribute to standard setting and, in particular, to a PIR. They further emphasize that a PIR should be conducted by an institution which is independent from the standard setter in order to avoid self-evaluation concerns.
the studies document substantial cross-country differences in the application of IFRS which may especially reflect national pre-IFRS accounting practices. However, heterogeneous financial reporting, which potentially limits comparability across firms, can also be observed within countries. Manuscript D “Comparability of reported cash flows under IFRS – Evidence from Germany” examines the comparability of cash flows reported under IAS 7 Statement of Cash Flows. In particular, the classification choices with regard to interest and dividends are analyzed for a sample of German listed firms from 2005 to 2012. Documenting diversity in practice, the manuscript further sheds light on the determinants of firms’ classification choices beyond the dominant country factors. Thereby, the paper adds to the literature on comparability of financial reporting under IFRS as well as on reporting incentives with regard to the statement of cash flows, in particular (Zhang, 2009; Lee, 2012; Gordon et al., 2014). Moreover, it contributes to the long-lasting debate about the appropriate conceptual classification of interest and dividends (e.g. Nurnberg and Largay, 1998).

The effects of the IFRS adoption on the transparency of financial reporting have often been evaluated by measures of the properties of earnings ("earnings transparency")\(^\text{10}\) and, in particular, the effects on the degree of earnings management. However, evidence for a decrease of the degree of earnings management, and thus an increase in financial reporting transparency,\(^\text{11}\) is not yet conclusive. However, users of financial reports are interested beyond such aggregate measures of earnings quality (Brüggemann et al., 2013). Therefore, academics have also examined

\(^{10}\) For example, Brüggemann et al. (2013) observe that IFRS adoption studies mostly use ‘earnings quality’ metrics.

\(^{11}\) Although earnings management can also be used to signal private information, in this dissertation, earnings management is interpreted opportunistically which is in line with the majority of earnings management studies regarding IFRS adoption. For example, Barth et al. (2008) expect companies with higher quality earnings to exhibit a lower degree of earnings management and state that this prediction is consistent with prior research.
the effects of IFRS adoption on the quantity and the quality of disclosures which usually accompany the primary financial statements (hereafter: disclosure quality), a different dimension of transparency. In contrast to the results regarding earnings management, research examining disclosure quality provides unanimous support for an increase in transparency as a result of the switch to international accounting standards (Leuz and Verrecchia, 2000; Daske and Gebhardt, 2006; Glaum et al., 2013). Since enhanced disclosures under IFRS have been brought forward as one argument to expect a decrease in earnings management as a result of the adoption of IFRS (see Doukakis, 2014), the different effects documented in the literature as well as the association between these dimensions of transparency around the regulatory change are a matter of great interest which has not been addressed by prior research.

Manuscript E “Short-term and long-term effects of IFRS adoption on disclosure quality and earnings management” investigates the effects of IFRS adoption on the transparency of financial reporting in Germany. First, the manuscript analyzes separately the development of the degree of earnings management and the quality of disclosures. Since prior research was inevitably limited to studying a few years around the adoption of IFRS and because the need to examine longer time horizons has been emphasized (e.g. Callao and Jarne, 2010), the paper analyzes the development of transparency from the first few years, the ‘early’ phase of IFRS accounting, to the ‘mature’ phase. In addition, the nature of the relationship between disclosure quality and the degree of earnings management is examined. The paper contributes to the widespread debate on the effects of IFRS adoption and highlights the importance of studying time horizons beyond the first few years after the regulatory change. Considering the scale of the introduction of
IFRS in the EU, financial reporting stakeholders should clearly be interested in the long-term results rather than focusing on short-term outcomes.

2 Overview and Findings of the Manuscripts

Manuscript A “The Success Story of International Additives Producer AG – A Case Study on Categorization of Investments under IFRS” lays the foundation for this dissertation. As such, it provides a comprehensive introduction into the conceptual fundamentals of group reporting under IFRS and, in particular, the categorization of investments according to the recently issued standards IFRS 10, IFRS 11 and IAS 28 (revised 2011). The manuscript is constituted of a teaching case study and hence, is attributable to the field of accounting education. The learning objectives of the teaching case cover technical aspects of the relevant accounting provisions related to the categorization of investments under IFRS as well as the development of an understanding of the consequences of investment categorization. This does not only comprise the consequences regarding the accounting methods to be applied, but rather includes related disclosure requirements and, importantly, managerial incentives arising from compensation contracts or capital market expectations. By embedding the role and effects of managerial incentives, the case study addresses the proclaimed need to enhance an understanding of the economic concepts and theories that underlie financial reporting (see Barth, 2008).

To date, the case study has been implemented twice by the author of this dissertation at HHL Leipzig Graduate School of Management both in the M.Sc. and in the MBA program. Moreover, the manuscript has been submitted to the Journal of
Accounting Education (ISSN 0748-5751) (VHB-Jourqual 3: “C”). Having received a “revise and resubmit” decision, the manuscript has been amended and will be resubmitted to the Journal of Accounting Education soon. The manuscript is co-authored with Henning Zülch and Daniel Voll. The development of the research question as well as the design and preparation of the manuscript, including the case study, teaching notes as well as recommended solutions, has been conducted equally by Daniel Voll and the author of this dissertation in collaboration. Henning Zülch was constantly supervising and mentoring throughout the process of developing the manuscript.

Manuscript B “Die Bilanzierung von Beteiligungen an assoziierten Unternehmen sowie Gemeinschaftsunternehmen auf der Basis des überarbeiteten IAS 28 – Implikationen der Neuerungen für die Bilanzierungspraxis” provides a comprehensive analysis of the changes made to IAS 28 Accounting for Associates and Joint Ventures (revised 2011) which has been issued contemporaneously with the new standards IFRS 10, IFRS 11, and IFRS 12. However, in contrast to these standards, the revised version of IAS 28 has received relatively little attention in the literature. The manuscript contains the results of a systematic, in-depth analysis of the new version of IAS 28 issued in May 2011 in comparison to its predecessor. The changes made to IAS 28 (revised 2011) are assessed with regard to their potential impact on the accounting for associates and joint ventures. Besides editorial and minor changes, e.g. changes to definitions contained in the standard, IAS 28 (revised 2011) experienced several major revisions of high practical relevance. In particular, material changes have been made with regard to the exemptions from applying the equity method, the classification of an investment, or a portion of an investment, in an associate or joint venture as held
for sale in accordance with the provisions of IFRS 5 *Non-current Assets Held for Sale and Discontinued Operations*, and the discontinuing of the use of the equity method as well as changes in ownership interest. The presentation and discussion of the changes made to IAS 28 (revised 2011) is complemented by an overview of ongoing discussions about the further development of IAS 28 at the time of publication of this paper.

Manuscript B has been published in the German journal *Die Wirtschaftsprüfung* (ISSN 0340-9031) (VHB-Jourqual 3: “C”) in January 2014. The manuscript is co-authored with Henning Zülch and Marco Popp. The development of the research question, the analysis of the revised IAS 28 *Investments in Associates and Joint Ventures* (rev. 2011) as well as the preparation of the manuscript has been conducted equally by Marco Popp and the author of this dissertation in collaboration. Henning Zülch was constantly supervising and mentoring throughout the process of developing the manuscript.

Manuscript C “10 Years Impairment-only Approach – Stakeholder Perceptions and Research Findings” examines the perceptions and experiences of stakeholders as well as the findings of academic research with regard to the accounting for goodwill under the impairment-only approach in the last decade. Thereby, the paper contributes to the current debate on subsequent goodwill accounting and the impairment test that has been re-opened by the IASB during the PIR on IFRS 3. In a first step, the stakeholder perceptions are analyzed by means of a content analysis of comment letters that have been sent to the IASB in response to a formal Request for Information issued in the second phase of the PIR. Altogether, 97 individual comment letters were analyzed with a focus on the perceptions regarding the questions whether more useful information are provided
under the impairment-only approach compared to regular amortization, whether
the impairment test is ‘rigorous and operational’ devised, and which arguments
are used to support either the impairment-only approach or amortization. In a sec-
ond step, a systematic review of related academic research is provided to assess
the usefulness of the impairment-only approach as well as the rigorousness and
operability of the impairment test from a second perspective. The two-pronged
approach enables a comparison of the two perspectives to analyze whether the
perceptions of stakeholders, mainly from practice, are supported by the findings
of empirical academic research as well as how relevant current accounting re-
search is from a standard setting and practice perspective. The aim of the paper is
to contribute to the debate by providing a neutral assessment of stakeholder per-
ceptions and research findings, i.e. an assessment which is not subject to self-
evaluation concerns. Moreover, novel insights into the stakeholder perceptions
regarding the impairment-only approach, especially with regard to the classifica-
tion of stakeholders according to the background of their accounting systems, are
provided.

The paper shows that, on the one hand, stakeholders’ views about the usefulness
of the information provided by the impairment-only approach are mixed, while
they share widespread concerns about the cost-benefit relation as well as the com-
plexity and discretion involved in the impairment test procedures. On the other
hand, academic research tends to support the former assumption that the impair-
ment-only approach increases the usefulness of financial reporting in comparison
to amortization. However, the concerns expressed about subjectivity and manage-
rial discretion are confirmed by a number of studies that provide evidence for
earnings management behavior through impairment decisions. Importantly, the
findings point to differences between stakeholders from countries with different accounting backgrounds. Throughout the analyses, stakeholders from countries with a British-American accounting system provide much more support for the impairment-only approach and the impairment test provisions than those with a Continental (European) accounting background.\textsuperscript{12} The former group provides more arguments in favor and fewer arguments against the impairment-only approach than the latter and advocates a return to regular amortization relatively rarely, whereas more than half of the stakeholders with a Continental accounting background explicitly recommend a return to regular amortization. This finding complements research that indicates that different groups of accounting systems persist even under a shared accounting regime such as IFRS (e.g. Nobes, 2011; Nobes and Stadler, 2013). It also supports doubts on whether a set of international standards can be developed that finds an equal level of acceptance around the globe. On the basis of the analyses, the measures planned by the IASB, i.e. research projects on the subsequent accounting for goodwill as well as the impairment test procedures, are assessed to be appropriate. Furthermore, the paper derives some suggestions for improvements to the impairment-only approach that could help to address some of the concerns noted in the short-term.

The manuscript is intended for publication in a scientific accounting journal such as \textit{Accounting in Europe} (ISSN 1744-9480) (VHB-Jourqual 3: “C”). The submission is planned soon after completion of this dissertation. An earlier version of this manuscript has been published as HHL Working Paper No. 144 available online at HHL’s website (www.hhl.de) as well as at the \textit{Social Science Research Network} (www.ssrn.com). That version has also been presented by Tobias Stork

\textsuperscript{12} The classification of countries according to their accounting systems follows Mueller et al. (1997).
genannt Wersborg and the author of this dissertation in a workshop at PricewaterhouseCoopers in Frankfurt am Main in September 2014. In addition, the author of this dissertation presented earlier versions of the paper at the 6th Doctoral Seminar on Accounting at HHL Leipzig Graduate School of Management, Leipzig, in October 2014, the 38th Annual Congress of the European Accounting Association in Glasgow, Scotland, in April 2015, and at the 77th Annual Meeting of the German Academic Association for Business Research (VHB) in Vienna, Austria, in May 2015. With regard to the intended contribution of the initial version of the paper, it is noteworthy that the results of the study have been cited by the staff of the IFRS Foundation in its analyses during the PIR on IFRS 3 (see IASB, 2014). The manuscript is co-authored with Henning Zülch and Tobias Stork genannt Wersborg. The development of the research question, the design of the study as well as the preparation of the manuscript has been conducted equally by Tobias Stork genannt Wersborg and the author of this dissertation. Moreover, the author of this dissertation conducted the content analysis of the comment letters. In addition, the author of this dissertation revised the manuscript to incorporate comments received from reviewers. Henning Zülch was constantly supervising and mentoring throughout the process of developing the manuscript.

Manuscript D “Comparability of reported cash flows under IFRS – Evidence from Germany” examines the comparability of cash flows reported under IAS 7 Statement of Cash Flows. Traditionally, the statement of cash flows has been regarded as relatively well comparable across firms and time due to its focus on changes in cash and cash equivalents and the absence of discretion with regard to recognition and measurement. However, IFRS offer considerable flexibility re-

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13 See e.g. ADS International (2002), Chapter 23 “Cash Flow-Rechnung” [Cash Flow Statement], par. 3.
garding the classification of certain cash flow items which potentially impedes comparability. This manuscript examines the classification choices regarding interest and dividends under IFRS. Unlike US GAAP, IAS 7 allows firms to report such cash flows either within or outside operating cash flow.

Documenting reporting practice for a sample of 1,064 firm-year observations from 2005 to 2012, the paper finds substantial diversity with regard to the classification of cash flows which reduces comparability among German non-financial firms. The dominant classification under IFRS reflects the concurrent German GAAP guidance: Throughout the sample period, more than two thirds of the companies classify interest paid (70%), interest received (71%), and dividends received (69%) as operating, while dividends paid are included in financing cash flow almost without exception. Importantly, operating cash flow as reported under IFRS significantly exceeds the amount that would have been reported without these IFRS-specific classification choices (see also Gordon et al., 2014).

In addition, the manuscript applies multivariate analyses to provide further insights into the drivers of classification choices that generally increase operating cash flow. Thereby, it complements prior research by Gordon et al. (2014) by examining several additional corporate governance and management-related factors. The findings support prior research in that highly-leveraged and less profitable firms use discretion over cash flow reporting in response to contracting concerns (Gordon et al., 2014) or to augment reported financial information (Adhikari and Duru, 2006). Moreover, the paper provides evidence for the relevance of industry practice for the policy choices of listed firms. Further, the results suggest

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14 Gordon et al. (2014) document the classification choices regarding interest and dividends of firms from 13 European countries and provide initial evidence on the determinants of classification choices that aim to increase operating cash flow.
that mandatory adopters of IFRS as well as firms audited by non-Big 4 auditors are less likely to make use of IFRS-specific classification options. This is consistent with the conjectures that national pre-IFRS practices persist (e.g. Kvaal and Nobes, 2010; Nobes and Stadler, 2013) and that big international (Big 4) auditors do not only serve as a constraint but rather as an advisor on international accounting issues (Cole et al., 2013). The findings also indicate that firms using cash flow measures for internal control purposes tend to increase operating cash flow by means of classification. Overall, the findings of manuscript D indicate that the heterogeneous classification of interest and dividends does not only reflect different underlying economics but is associated with several firm-specific factors and incentives. Therefore, the manuscript casts doubt on whether the advantages of the flexibility offered under IFRS outweigh the disadvantages of reduced comparability.

This manuscript has been submitted for publication to Corporate Ownership and Control (ISSN 1727-9232) (VHB-Jourqual 3: “C”). An earlier version of this manuscript has been presented by Christian Kretzmann and the author of this dissertation at the 5th Doctoral Seminar on Accounting at HHL Leipzig Graduate School of Management, Leipzig, in October 2013. Furthermore, the paper has been presented by Christian Kretzmann at the international conference on “Corporate and Institutional Innovations in Finance and Governance” in Paris, France, in May 2015. The manuscript is co-authored with Henning Zülch and Christian Kretzmann. The development of the research question, the collection of data, the design of the study including the theoretical basis and empirical analysis as well as the preparation of the manuscript has been conducted by Christian Kretzmann and the author of this dissertation in collaboration. In this cooperation, Christian
Kretzmann was mainly involved in the collection of data from databases and the execution of the empirical analyses. The author of this dissertation contributed mainly to the development of the research question, the theoretical background and the literature review as well as the preparation of the manuscript. Henning Zülch was constantly supervising and mentoring throughout the process of developing the manuscript.

Finally, Manuscript E “Short-term and long-term effects of IFRS adoption on disclosure quality and earnings management” examines the effects of IFRS adoption on earnings management as well as disclosure quality which are considered as different but related dimensions of transparency. The study focuses on Germany which allows using a specific proxy for disclosure quality, namely the disclosure scores of the “Best Annual Report” ‘beauty contest’ of the German business journal manager magazin, which are publicly available from 1995 to 2012. With regard to earnings management, the study employs discretionary accruals in its main analyses as well as an alternative earnings management diagnostic developed by Jansen et al. (2012) as a robustness check. The sample of firms as well as the study period from 1995 to 2012 were determined by the availability of the disclosure scores. In a first step, the effects of the IFRS adoption on earnings management and disclosure quality are analysed separately. In a second step, the paper addresses the demand for long-term studies of effects of IFRS adoption and examines whether there are differences regarding the dimensions of transparency between the early and mature phase of reporting under IFRS. Therefore, the first four years of the individual firms’ IFRS reporting are defined as ‘early’ irrespective of whether the adoption was voluntary or mandatory. All subsequent years are defined as ‘mature’ IFRS reporting years. In addition to these separate
analyses on the effects of IFRS adoption on disclosure quality and earnings management, the paper examines the nature of the relationship between these dimensions of transparency.

Consistent with prior research findings, the paper documents an increase in disclosure quality accompanying the transition from German GAAP to IFRS. Contrarily, the level of earnings management is significantly higher under IFRS compared to German GAAP. However, this result seems to be driven by observations from the first few years of IFRS reporting, since the findings indicate a significant decrease in the extent of earnings management from the ‘early’ phase of IFRS reporting to the ‘mature’ phase. Comparing the extent of earnings management under German GAAP to observations from the ‘mature’ phase of IFRS reporting, the study does not report a significant difference which indicates that the extent of earnings management does not increase under IFRS compared to German GAAP in the longer run. This is interpreted as an improvement in transparency over time attributable to learning effects of preparers, users, and auditors, developing enforcement, diminishing effects resulting from the application of IFRS 1 (First-time Adoption of IFRS), and the development of common guidelines and interpretations which foster consistent application of the new standards. Thus, the results may mitigate concerns raised by earlier ‘short horizon’ studies documenting an increase in earnings management behavior under IFRS (e.g. Callao and Jarne, 2010). Finally, the study provides evidence of a negative association between disclosure quality and earnings management which indicates that disclosures have the potential to constrain earnings management. This relationship holds especially when accounting standards require relatively few disclosures and/or when common guidelines and interpretations are not yet developed and financial statements
are influenced by low compliance, little experience or weak enforcement as in the ‘early’ phase of IFRS reporting. Besides the literature on the interplay between disclosures and earnings management/quality (e.g. Lobo and Zhou, 2001; Francis et al., 2008; Iatridis, 2011; Mouselli et al., 2012; Blanco et al., 2014), the results regarding the relationship between disclosures and earnings management are of potential interest to both standard setters and users of financial reporting. The former should feel encouraged to demand high quality disclosures, particularly regarding the estimates and assumptions used by preparers, while the latter should be aware of the use of discretion in the absence of disclosures.

The manuscript has been submitted for publication to Accounting in Europe (ISSN 1744-9480) (VHB-Jourqual 3: “C”). Having received a “revise and resubmit” decision the manuscript will be resubmitted to Accounting in Europe soon after it underwent further revisions by the authors. An earlier version of this paper has been published as a working paper available online at the Social Science Research Network (www.ssrn.com) and it was presented by Marcus Salewski and the author of this dissertation at the 5th Doctoral Seminar on Accounting at HHL Leipzig Graduate School of Management, Leipzig, in October 2013. Moreover, the author of this dissertation presented the paper at the 37th Annual Congress of the European Accounting Association in Tallinn, Estonia, in May 2014, as well as the 10th Workshop on European Financial Reporting in Regensburg in September 2014 (EUFIN 2014). Furthermore, the findings of the study have been cited in a recent literature review on the effects of IFRS adoption in the EU by Singleton-Green (2015, pp. 48 and 52). The manuscript is co-authored with Henning Zülch and Marcus Salewski. The development of the research question, the design of the study including the theoretical basis and empirical analysis as well as the prepara-
tion of the manuscript has been conducted equally by Marcus Salewski and the
author of this dissertation in collaboration. In this cooperation, the empirical anal-
yses have been processed by Marcus Salewski. Additionally, the author of this
dissertation revised earlier versions of the manuscript to incorporate comments
from reviewers and participants of the conference presentations. Henning Zülch
was constantly supervising and mentoring throughout the process of developing
the manuscript.

In summary, this dissertation covers important current conceptual and empirical
issues in group reporting under IFRS. The individual manuscripts contribute to
the literature in several ways. Firstly, manuscript A introduces the fundamental
concepts of group reporting under IFRS with an emphasis on the newly issued
standards IFRS 10, IFRS 11, and IAS 28 (revised 2011) and the consequences of
investment categorization. In addition, the case study embeds the role and effects
of managerial incentives thereby contributing to the literature in the field of ac-
counting education. Secondly, manuscript B provides an analysis of the changes
made to the revised IAS 28 issued in 2011 which have rarely been covered in the
literature before, especially in comparison to other group reporting standards is-
ued contemporaneously. Thirdly, manuscript C contributes to the debate on sub-
sequent goodwill accounting by providing an assessment of the impairment-only
approach which is independent from the standard setter and, thus, not subject to
self-evaluation concerns. It provides insights into the views and arguments of
stakeholders as well as findings of the related literature. It highlights the different
perceptions from stakeholders with a British-American accounting background as
opposed to those with a Continental (European) accounting background. Fourthly,
manuscript D documents the diverse classification of interest and dividends in the
statement of cash flows by German firms for the period from 2005 to 2012. Importantly, it sheds light on potential determinants of classification choices that increase operating cash flow and finds that classification choices are not only reflecting different underlying economics but rather, are associated with firm-specific factors and incentives. Concluding, manuscript E provides initial insights into the long-term effects of IFRS adoption on transparency and suggests that financial reporting quality increases under IFRS over time. In addition, the manuscript provides evidence for a negative association between disclosures and earnings management. Figure 2 provides an overview of the results of the dissertation.
Figure 2: Results of the dissertation
References


II. THE SUCCESS STORY OF INTERNATIONAL ADDITIVES PRODUCER AG – A CASE STUDY ON CATEGORIZATION OF INVESTMENTS UNDER IFRS

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This manuscript has been accepted for publication in *Journal of Accounting Education* (ISSN 0748-5751). For copyright reasons, pages 38-131 were excluded from this version of my dissertation.
Die Bilanzierung von Beteiligungen an assoziierten Unternehmen sowie Gemeinschaftsunternehmen auf der Basis des überarbeiteten IAS 28 – Implikationen der Neuerungen für die Bilanzierungspraxis

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IV.

10 YEARS IMPAIRMENT-ONLY APPROACH – STAKEHOLDER PERCEPTIONS AND RESEARCH FINDINGS

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V. 10 YEARS IMPAIRMENT-ONLY APPROACH – STAKEHOLDER PERCEPTIONS AND RESEARCH FINDINGS

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Abstract

This paper contributes to the current debate on goodwill accounting under IFRS. Ten years after the introduction of the so-called impairment-only approach (IoA), we assess the effects of the implementation of this methodology from two perspectives. Firstly, we examine the perceptions of various stakeholders by analyzing comment letters received by the IASB during the Post-implementation Review on IFRS 3 *Business Combinations*. Secondly, we systematically review related academic literature. Our findings show that stakeholders’ views about the usefulness of the information provided by the impairment test are mixed, while they share widespread concerns about the cost-benefit relation and the extent of discretion involved in impairment testing. Moreover, perceptions differ depending on stakeholders’ backgrounds, i.e. stakeholders from British-American accounting systems are more positive about the IoA than those from Continental systems. Academic research tends to support the assumption that the IoA increases the usefulness of financial reporting. However, the concerns expressed by stakeholders about managerial discretion are supported by empirical studies. Our analysis provides support for the measures taken by the IASB as well as suggestions for the further development of goodwill accounting.

Keywords: Post-implementation Review, Business Combinations, Goodwill, Impairment, IFRS 3, IAS 36
1 Introduction

“No one can afford to be dogmatic about the treatment of goodwill. So many excellent authorities disagree absolutely as to the treatment of goodwill that it would seem as if almost any of the methods discussed would be justifiable.”\(^1\)

The subsequent treatment of goodwill acquired in a business combination has long been one of the most intensely debated accounting issues. A variety of methods, including charging the residual directly to the acquirer’s equity or amortization with and without a limit to goodwill’s useful life, has been discussed and applied in several jurisdictions as well as internationally. The current stage has been entered into in the early 21st century, when the two most important accounting systems, US GAAP and IFRS\(^2\), moved to the so-called impairment-only approach (IoA), i.e. to non-amortization with annual and indicator-based impairment tests.

Following the US Financial Accounting Standards Board (FASB), the International Accounting Standards Board (IASB) abolished the amortization of goodwill in the first stage of its business combinations project in 2004. Ten years later, the IASB conducted its Post-implementation Review (PIR) on IFRS 3 *Business Combinations*, the result of the two phases of the project on business combinations that were completed in 2004 and 2008, respectively. Since a PIR is intended to assess the effects of the new accounting provisions on the financial reporting community and has to address the important or contentious issues during the development of the standard (IFRS Foundation, 2013, par. 6.55), a reconsideration of the accounting for goodwill during the PIR on IFRS 3 was just consequential. Hence, the


\(^{2}\) Unless specifically addressed, we generally use the term IFRS (International Financial Reporting Standards) in this paper when referring to both, accounting standards approved by the IASB or its predecessor, the IASC. Standards originally issued by the latter are called International Accounting Standards (IAS).
IASB’s formal Request for Information (RfI)\textsuperscript{3} which encouraged the stakeholders within the IFRS community to express their views on a range of business combinations topics also explicitly addressed the usefulness of the IoA and the related practical experiences.\textsuperscript{4}

As a result of the PIR, the IASB identified two areas out of all business combinations issues discussed as being of higher significance (IASB, 2015a): (1) the ineffectiveness and complexity of testing goodwill for impairment and (2) the subsequent accounting for goodwill, i.e. the benefits of the IoA compared to amortization complemented by indicator-based impairment tests. Consequently, in February 2015, the IASB decided to add research projects on these two issues on its research agenda (IASB, 2015b).

The IASB nowadays emphasizes the need for academic research in the standard setting process including the PIR.\textsuperscript{5} With regard to PIRs, Ewert and Wagenhofer (2012) emphasize the potential contribution of academics\textsuperscript{6} and stress that a PIR should be conducted by an institution which is independent from the standard setter in order to avoid self-evaluation problems. With this paper, we follow these requests and contribute to the current standard setting debate on subsequent

\textsuperscript{3} RfIs are defined as “formal requests by the IASB for information or feedback on a matter related to technical projects or broader consultations” (IFRS Foundation, 2013, par. 4.15).

\textsuperscript{4} While the preceding PIR on the respective US GAAP standard, FASB Statement No. 141 (revised 2007) Business Combinations (Statement 141R), did not address the accounting for goodwill, the FASB recently began to reconsider the issue, too. Having at first allowed private companies to amortize goodwill, the FASB also started a project on Accounting for Goodwill for Public Business Entities and Not-for-Profits. However, further activities were postponed until the findings of the PIR on IFRS 3 were issued (see FASB, 2014).

\textsuperscript{5} For example, having reviewed academic research during the PIR on IFRS 8 Operating Segments, the IASB is convinced that a review of related research forms “an essential part of the PIR process” (IASB, 2014a, p. 5).

\textsuperscript{6} Ewert and Wagenhofer (2012) point out that an \textit{ex post} assessment of the consequences of new standards on financial reporting quality is a core competency of accounting scholars. Moreover, besides their independence from standard setting, the reliability of academics’ results due to rigorous methods as well as their being more neutral regarding possible outcomes of the research are advantages which make them able to make a valuable contribution to a PIR. Similarly, Fühlber et al. (2009, p. 484) stress researchers’ “neutrality, their analytical thinking and their detached reasoning.”
goodwill accounting and the upcoming related IASB projects. In particular, we assess the effects of the introduction of the IoA from two perspectives. Firstly, we analyze the comment letters submitted in response to the RfI during the PIR to examine the perceptions of various stakeholders regarding the IoA ten years after its introduction. Secondly, we systematically review related academic literature providing evidence for or against different aspects of the IoA. The twofold approach enables a comparison of the two perspectives to analyze whether the perceptions of stakeholders, mainly from practice, are supported by the findings of empirical research as well as how relevant current accounting research is from a standard setting and practice perspective. Our aim is to contribute to the debate by providing a neutral assessment of stakeholder perceptions and research findings, i.e. an assessment which is not subject to self-evaluation concerns. This is especially important since, in line with the requirement of the *Due Process Handbook* (IFRS Foundation, 2013, par. 6.52), the IASB has conducted the PIR on IFRS 3 itself.

Our research shows that, on the one hand, stakeholders’ views about the usefulness of the information provided by the IoA are mixed, while they share widespread concerns about the cost-benefit relation as well as the complexity and discretion involved in impairment tests. On the other hand, academic research tends to support the former assumption that the IoA increases the usefulness of financial reporting in comparison to amortization. However, the concerns about subjectivity and managerial discretion are confirmed by a number of studies that provide evidence for earnings management behavior through impairment decisions.

Importantly, we provide novel insights into the perceptions of stakeholders from countries with different accounting systems. Throughout our analyses, stakeholder-
ers from countries with a British-American accounting system provide more support for the IoA and the impairment test than those with a Continental (European) background. The former group provides more arguments in favor and fewer arguments against the IoA than the latter. Remarkably, more than half of the stakeholders with a Continental accounting background explicitly recommend a return to regular amortization. This finding complements research that observes that different groups of accounting systems persist even under a shared accounting regime such as IFRS (Nobes, 2011). It also supports doubts on whether a set of international standards can be developed that is equally accepted around the globe.

Our analyses provide support for the measures taken by the IASB, i.e. the implementation of research projects with regard to the impairment test as well as the subsequent accounting for goodwill. While, in the light of the research evidence, a withdrawal of the IoA does not seem advisable in the short-term, we derive some implications for the further development of the impairment test under IFRS. Possible improvements include a qualitative assessment that could be performed first to evaluate whether an impairment test needs to be conducted and the abolishment of the concept of value in use (ViU). Additionally, a comprehensive review of related disclosure requirements and further guidance regarding difficult aspects, e.g. the treatment of non-controlling interests or corporate assets, seem to be necessary.

The remainder of this paper is organized as follows. Section 2 describes the development of goodwill accounting under IFRS until the recent PIR on IFRS 3. The stakeholder perceptions regarding the IoA are examined in section 3 on the basis of a content analysis of comment letters. Section 4 presents our review of
related literature. Section 5 discusses our findings and derives implications for the further development of goodwill accounting. Section 6 concludes.

2 Institutional Background

2.1 Development of Goodwill Accounting under IFRS

Overviews of the historical development of goodwill accounting have been provided for various jurisdictions and accounting regimes.\(^7\) Hence, we limit our remarks to the most fundamental milestones of accounting for goodwill under IFRS to highlight that goodwill accounting has been one of the important and contentious issues in the past. The International Accounting Standards Committee (IASC), the predecessor of the IASB, initially approached this issue when a project on business combinations was included on its agenda in 1978. Besides the contentious topic of the acceptability of the pooling-of-interests method\(^8\), the second main issue in this project was the subsequent accounting for goodwill capitalized under acquisition accounting (Camfferman and Zeff, 2007).

The first outcome of this project, the exposure draft E22, contained not less than three different approaches to account for a business combination\(^9\) and offered three alternatives for the treatment of arising goodwill: Immediate expensing, amortization or charging the residual to the acquirer’s equity. Camfferman and Zeff (2007, p. 137) ascertain that the accounting for goodwill was the most widely discussed issue by respondents to E22 who advocated “[a]lmost every conceivable

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\(^7\) Examples include Ding et al. (2008) for the UK, the US, Germany and France, Camfferman and Zeff (2007) and Kirsch (2006) for IFRS, and Boennen and Glaum (2014) for US GAAP and the recent IFRS history.

\(^8\) Under the pooling-of-interests method, the assets and liabilities of both of the combined entities are accounted for in the consolidated financial statements at their respective pre-acquisition book values.

\(^9\) In addition to purchase and pooling, E22 proposed to allow the so-called new entity accounting (“fresh start method”), where the assets and liabilities of all combining entities are revalued at fair value (Kirsch, 2006).
position on capitalization, amortization periods, and charging to equity [...] forcefully.” The final standard IAS 22 *Accounting for Business Combinations*, issued in 1983, allowed only purchase accounting and pooling with tightened conditions for the use of the latter. Moreover, with regard to the accounting for goodwill, IAS 22 allowed systematic amortization over its useful life or to charge goodwill directly to equity (Kirsch, 2006).

In the late 1980s, the IASC aimed to increase the comparability of financial statements. Therefore, exposure draft E32 *Comparability of Financial Statements*, published in 1989, proposed reducing the number of options within twelve standards. One of the options that were suggested for elimination was the alternative to write-off goodwill immediately to equity. With regard to the amortization of acquired goodwill, E32 further proposed a mandatory amortization period of five years, unless a longer period, up to 20 years, could be justified. Although this proposal was highly controversial, the position was maintained and finally incorporated in IAS 22 *Business Combinations* (revised 1993).10

In the 1990s, when the IASC worked on the accounting for intangible assets, the importance of a standard on asset impairment became obvious. Accordingly, IAS 36 *Impairment of Assets* was approved in April 1998 which can be seen as the major step in introducing a sophisticated impairment test procedure under IFRS. Shortly afterwards, in July 1998, the Board approved IAS 38 *Intangible Assets* as well as a revised version of IAS 22. With these standards the amortization periods of goodwill and other intangible assets were aligned. Both standards required goodwill and intangibles, respectively, to have a finite useful life and contained a rebuttable presumption that the useful life does not exceed 20 years. If

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10 See IAS 22 (1993) and Camfferman and Zeff (2007) for this paragraph.
this presumption was rebutted, goodwill had to be amortized systematically over the best estimate of its useful life and, additionally, to be tested (at least) annually for impairment in accordance with IAS 36.\textsuperscript{11}

The current stage of goodwill accounting was entered into in the beginning of the 21\textsuperscript{st} century. After succeeding the IASC, the IASB followed the FASB\textsuperscript{12} and started a project on business combinations in 2001 seeking to improve the quality of business combinations accounting as well as enhanced international convergence. The first phase of the project was concluded in March 2004 with the issuing of IFRS 3 \textit{Business Combinations} as well as revised versions of IAS 36 and IAS 38 (IFRS 3.BC – Background information). In addition to the elimination of the pooling-of-interests method and, thus, requiring the use of the acquisition method for all business combinations, the IASB abolished the amortization of acquired goodwill. The non-amortization goes hand-in-hand with the requirement to test goodwill at least annually for impairment in accordance with the provisions of IAS 36. About ten years later, the IASB started its PIR on IFRS 3 which, again, addresses the subsequent accounting for goodwill. Figure 1 summarizes the historical developments outlined above.

\textsuperscript{11} See IAS 22 (1998), Kirsch (2006), and Camfferman and Zeff (2007) for this paragraph.

\textsuperscript{12} In September 1999, the FASB issued Exposure Draft 201 (ED 201) on business combinations and intangible assets. The intention was to eliminate the pooling method and allow only the purchase method for business combinations accounting. In addition, it was proposed that goodwill should be amortized over 20 instead of 40 years. However, the proposal faced strong opposition and finally reached the US Congress which urged the FASB to consider alternative ways for the treatment of goodwill. Subsequently, the FASB followed the idea of performing an annual impairment test for goodwill instead of regular amortization and issued a revised ED 201 in February 2001 which included the IoA for goodwill as the only allowable subsequent measurement method. This proposal was received much more favorably so that the FASB finally issued SFAS 141 and 142 which required the purchase method for business combinations and the IoA for subsequent goodwill accounting in June 2001. See Ramanna (2008) for a comprehensive description of the introduction of the IoA under US GAAP.
2.2 The Post-implementation Review on IFRS 3

Following the PIR on IFRS 8 *Operating Segments* that was completed in 2013, the PIR on IFRS 3 was the second in the history of the IASB. According to the *Due Process Handbook* of the IFRS Foundation, a PIR has to be conducted for every new standard or major amendment and begins normally two years after the new standard is internationally applied. The aim of a PIR is to assess the effects of the new accounting provisions on financial reporting from the perspective of various stakeholders in the IFRS community, such as auditors, preparers, and users of financial statements. Issues to be considered are those that have been important or contentious in the development of the standard under review as well as (unexpected) costs or implementation problems.

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13 For this section of the paper and comprehensive information on the PIR on IFRS 3 see IASB (2014b).
14 For general information about the PIR process of the IASB given in this section see the respective parts of the *Due Process Handbook* (IFRS Foundation, 2013, par. 6.52-6.63).
The IASB started its PIR on IFRS 3 in June 2013. In the first phase, the standard setter sought input from different parties that had gained experience with IFRS 3 through a variety of channels (IASB, 2014b). Following this process of identification of potential matters to be covered during the PIR, the IASB issued a formal RfI on January 30, 2014, that has been open for public comment until May 30, 2014. The RfI contained ten explicit questions on business combinations issues, such as the definition of a business, fair value measurement, and unexpected costs or implementation problems of the new provisions. With regard to the subsequent accounting treatment of goodwill acquired in a business combination, the IASB explicitly asked about (1) the usefulness of the non-amortization approach for goodwill and the related reasons for the respondent’s assessment, (2) whether and how the information provided by the impairment test needs to be improved, and (3) the main implementation, auditing and enforcement challenges in testing goodwill for impairment (IASB, 2014c).

After the comment period, the IASB considered the responses received together with other information and evidence, especially from further outreach activities with stakeholders and a review of academic research. Finally, two areas of all business combinations issues discussed have been assessed as being of higher significance (IASB, 2015a): (1) the ineffectiveness and complexity of testing goodwill for impairment and (2) the subsequent accounting for goodwill. According to the comment letter summary, the academic literature review, the discussion of constituent feedback and academic research as well as the Report and Feedback Statement for detailed information about the results of the PIR conducted by the standard setter available at IASB (2014b).
sequent accounting for goodwill including the relative merits of the IoA versus amortization plus indicator-based impairment tests (IASB, 2015b).

3 Stakeholder Perceptions of the Impairment-only Approach

3.1 Research Approach: Content Analysis of Comment Letters

Goodwill accounting and especially the IoA have been widely discussed in recent years. The PIR process offers a good opportunity to analyze up-to-date feedback about the views of various parties. In particular, the comment letters received by the IASB in response to its RfI are publicly available and allow for a systematic content analysis. Thus, we focus on these comment letters to assess the stakeholder perceptions. In the following, we describe our classification of stakeholders, our research questions according to which we analyze the comment letters as well as our content analysis approach which largely follows Chatham et al. (2010).

To assess the acceptance of accounting provisions, it is vital to understand the views of stakeholders with different backgrounds and the diverse arguments they present. Therefore, the IASB emphasizes the importance to assess the effects of IFRS 3 from the perspectives of various parties (IASB, 2014c). In particular, the consideration of the types of respondents and their geographical origin may be insightful when analyzing comment letters (IFRS Foundation, 2013, par. 3.66). Accordingly, we classify stakeholders in two different ways:

*Interest Groups*

Following prior literature, we divided the stakeholders into nine different interest groups: Accounting profession (i.e. professional accountancy bodies and public accounting firms), accounting standard setters, regulators (and other government-
related entities), non-financial corporations, non-financial corporations’ trade associations, financial analysts, financial institutions (including their trade associations), academics, and others (Wallace, 1990; Kenny and Larson, 1995; Kwok, 1999; Larson, 2002 and 2007; Chatham et al., 2010).

Country and Background of Accounting System

The success of a global reporting regime depends on its worldwide acceptance (Schaub, 2005; Tweedie and Seidenstein, 2005). Accordingly, the IASB aims to develop high quality accounting standards that are accepted globally (Preface to IFRSs, par. 6(a)). However, prior research shows that the response level and support of accounting standards deviate between regions and countries (e.g. Kenny and Larson, 1995; MacArthur, 1996 and 1999; Larson, 2002 and 2007). In addition, IFRS reporting practices differ across countries and are influenced by national pre-IFRS accounting provisions (e.g. Kvaal and Nobes, 2010 and 2012). Nobes (2011) finds that differences in reporting practice between groups of countries persist under the shared IFRS reporting regime and reflect traditional groupings, i.e. Anglo and continental European countries. Hence, in addition to analyzing differences between stakeholder types, we group the stakeholders by country which also allows for a differentiation with regard to the origin of the stakeholders’ accounting system. Following the classification of Mueller et al. (1997), we are particularly interested in a comparison of the views of stakeholders from countries with a British-American accounting background to those of stakeholders with a Continental accounting background. Traditionally, British-American accounting systems were oriented towards the information needs of capital providers and were found in countries with large and developed capital markets, e.g. the UK or the US. Contrary, in countries with a Continental accounting system including
most continental European countries and Japan, firms typically had close relationships to banks which provided most of their capital. Accounting practices were conservative and the main purpose of accounting was not to serve the decision-making needs of investors and creditors but to satisfy requirements imposed by the government, e.g. the computation of income taxes (Mueller et al., 1997).

Development of Research Questions

In the course of the introduction of the IoA, the IASB argued that an amortization expense is at best an arbitrary estimate of the consumption of acquired goodwill (IFRS 3 (2004).BC140). According to the IASB, non-amortization of goodwill coupled with annual or, in case of indicators that goodwill might be impaired, more frequent impairment tests would provide users with more useful information (IFRS 3 (2004).BC142). Our first research question (RQ1) relates to the opinion of stakeholders about whether, ten years after the introduction of the IoA, this method in fact provides more useful information than amortization. Thus, RQ1 is not only in line with the aim of the PIR to assess whether “IFRS 3 provides information that is useful to users of financial statements” (IASB, 2014c, p. 4) but contributes to the current debate as well as the upcoming IASB research project on subsequent goodwill accounting which includes a relative assessment between the IoA and amortization.

RQ1: Does the IoA provide more useful information than amortization?

The IASB further noted that a necessary condition for providing more useful information via the IoA is that “a rigorous and operational impairment test could be devised” (IFRS 3 (2004).BC142). Hence, our second research question (RQ2) focuses on this aspect in order to analyze how stakeholders perceive the impairment test according to IAS 36. For this purpose, we understand a “rigorous and
“operational” impairment test as a means which is practically feasible and functions effectively, i.e. detects impairments when they economically occur. RQ2 therefore also addresses aspects of the PIR which aim to identify “areas of IFRS 3 that represent implementation challenges and, as a result, impair the consistent implementation of the requirements” (IASB, 2014c, p. 4) and contributes to the current debates on goodwill accounting and the impairment test in particular.

RQ2: Is the impairment test rigorous and operational devised?

Additionally, we are interested in the arguments used by supporters and opponents of the IoA and the alternative, i.e. regular amortization (plus indicator-based impairment tests), because these are important to better understand their positions and to identify areas for potential improvement. Our comparison of the IoA and amortization accounts for the fact that the IoA has been introduced on the basis of the relative reasoning that it works better than amortization. Thus, we expect stakeholders to (explicitly or implicitly) benchmark the IoA to the former amortization approach in their comment letters. Moreover, a detailed analysis of the arguments regarding these two methods contributes particularly to the upcoming IASB project on subsequent goodwill accounting which includes this comparison. Accordingly, we analyze the comment letters with regard to the following research question 3:

RQ3: What are the arguments for and against the IoA in comparison to the amortization of goodwill?

Sample and Content Analysis of Comment Letters

From the 100 submissions that have been publicly available on the IASB’s website on August 27, 2014, we have eliminated 3 submissions of respondents that
submitted two identical letters. Consequently, 97 submissions have been treated as separate comment letters in our analyses. Content analysis was employed to analyze the 97 responses. Although question 5 of the RfI explicitly addressed the subsequent accounting for goodwill, we analyzed the comment letters in their entirety to find all relevant arguments. This is because some questions are inevitably intertwined. For example, question 4 covered the separate recognition of intangible assets from goodwill as well as the treatment of negative goodwill. Moreover, some respondents provided overall responses without referring to specific questions.

To address the first two research questions, RQ1 and RQ2, we identified the position of each stakeholder (Yes, Neutral, or No). Responses have only been evaluated as “Yes” or “No”, if the opinion of the respondent was relatively unambiguous. In all remaining cases “Neutral” has been assigned to the respective comment letter. This also applies to respondents that gathered views of various stakeholders and did not express a clear preference which views they themselves would support.

For RQ3, the arguments that were used by the respondents were coded according to a list of arguments which were initially based on the discussion upon the introduction of the IoA in 2004 and complemented by additional reasons identified during our initial analysis of the responses using an inductive approach. We arranged all arguments – divided into those that are used in favor of the IoA (contra amortization) and those that are brought forward against the IoA (pro amortization).
tion) – around the fundamental elements of the Conceptual Framework for Financial Reporting of the IASB. The first category (Usefulness Criteria) consists of arguments that target the overall goal of financial reporting which is to provide information that is useful to capital providers of the reporting firm (Conceptual Framework, OB2). The question addressed with these arguments is whether the IoA leads to more useful information in comparison to amortization (see also RQ1 above). In accordance with the fundamental qualitative characteristics of useful financial reporting (see Conceptual Framework, QC5-QC18), we further subdivide the Usefulness Criteria into Relevance Criteria and Faithful Representation Criteria in order to gain deeper insights into the sources of respondents’ satisfaction or dissatisfaction with the provisions under review. For both subcategories, Relevance and Faithful Representation, we further separate arguments that relate to Disclosures. Within the Faithful Representation Criteria, we additionally form a subgroup of arguments that are related to the question whether the current impairment test is rigorous and operational devised (Operational and rigour). The arguments of this category provide insights into the reasons for stakeholders’ assessments regarding RQ2.

Besides the Usefulness Criteria, we distinguish arguments that are relevant to the stewardship function of financial reporting (Stewardship/Accountability), relate to the Cost Constraint on Useful Financial Reporting and arguments that are not related to the categories above (Other Criteria). Starting from the arguments that have already been addressed during the debate on the introduction of the IoA, we identified 35 arguments that have been used in the responses (see Appendix 1 and Table 3 for the list of arguments and our framework of categories).
After testing the robustness of our categorization for a random sample of 15 comment letters, two of the authors analyzed and coded all of the remaining comment letters independently to figure out the most cited arguments (RQ3) as well as the position of the stakeholders regarding RQ1 and RQ2. The results have been largely consistent, especially regarding the overall assessment required to answer RQ1 and RQ2.18 The rate of agreement was between 85% and 95% with the lowest rate achieved regarding the coding of the 35 different arguments used (85.2%). Any difference has been discussed until consensus was reached.

3.2 Results of Comment Letter Analysis

3.2.1 Profiles of Respondents

Altogether, 97 interested parties from more than 25 countries responded to the IASB’s RfI via official comment letters. Thus, in the light of the only previous PIR of the IASB which related to IFRS 8 and attracted 62 comment letter responses (IASB, 2013), participation can be regarded as relatively high. Around half of the comment letters (49 responses) were submitted by respondents from Europe (EU countries: 37), especially from the UK (14), Germany (9), France (7), and Switzerland (6). Australian constituents were the most active group outside Europe (5). US stakeholders, having recently conducted a PIR on the US GAAP business combinations standard, were comparatively silent (3). While there were letters from Latin America (5), Asia (16), and Africa (4), no single comment letter has been received from Eastern Europe and Russia pointing out further potential for the IFRS reporting regime to gain broader international acceptance. Organiza-

18 The rates of agreement were 91.5% (RQ1) and 93.9% (RQ2), respectively. Using the Kappa statistic for inter-annotator agreement (following the suggestion of Cohen, 1960, and Giner and Arce, 2012), we control for subjectivity obtaining no significant differences between the results of the two authors who analyzed RQ1 and RQ2 (Kappa values: $RQ1 = 0.886$, $RQ2 = 0.919$, both significant at 1%).
tions, particularly international public accounting firms, that are present around the globe and therefore not assigned to specific countries (“International”) account for 10% of total respondents. Differentiating the constituents according to the origin of their accounting system, it becomes evident that participation was almost balanced between stakeholders from countries with a British-American accounting system (38 responses) and from countries with a Continental accounting system (33).\(^{19}\)

The analysis by interest groups shows that non-financial corporations including their trade associations sent the most comment letters to the IASB (31 responses). The accounting profession submitted 21 responses which makes the representation of this stakeholder group comparable to the group of accounting standard setters (18). The remaining stakeholder groups are represented comparatively weakly with regulators submitting 8 responses followed by academics (5), financial analysts (4), financial institutions (4), and others (6).

Irrespective of whether financial institutions are seen as preparers or, because of their investment-related activities, as users of financial reporting, it is obvious that users are not well-represented in the overall response to the RfI. Although this observation is consistent with prior research (e.g. Durocher et al., 2007; Chatham et al., 2010), this is still remarkable considering that financial reporting under IFRS intends to satisfy the needs of this stakeholder group. Moreover, the strong commitment to the PIR by preparers from non-financial industries has to be modified in respect of the much higher number of companies preparing IFRS financial

\(^{19}\) Since the number of respondents from countries with a South American Model is low and the respondents that cannot be categorized into the Mueller et al. (1997) model include organizations that have been regarded as “International” or “European” that can represent views from various accounting systems, we only refer to the British-American and the Continental accounting systems in our analyses.
statements forming the preparers’ total population. However, the fact that “for every non-financial corporation that provided a letter, there are literally hundreds if not thousands of firms that did not respond” (Chatham et al., 2010, p. 100) is not unique to this PIR. Prior research attributed the non-participation of firms to reasons such as insufficient awareness about the project, no or limited economic effects of the proposals, alternative ways to influence the standard setter, costs of the comment letter response, or agreement with the standard setter.20 Finally, it is noteworthy that only a limited number of respondents stem from academia (5).21 Table 1 provides a summary of respondents by country and interest group.

20 See Chatham et al. (2010) including further references.
21 We note, however, that some other respondents that gathered input from various parties in their jurisdiction before drafting their response also considered the views of academics. Examples include the comment letters from the Institute of Singapore Chartered Accountants (ISCA) and the South African Institute of Chartered Accountants (SAICA). In none of such cases, we observe indications that the views from academics had a major impact on the final comment letter.
Table 1: Classification of PIR IFRS 3 Request for Information Respondents by Stakeholder and Country

<table>
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<tr>
<th>Country</th>
<th>Accounting Profession</th>
<th>Standard Setters</th>
<th>Regulators</th>
<th>Non-Finl Corporations</th>
<th>Non-Finl Corp Trade Assns</th>
<th>Financial Analysts</th>
<th>Financial Institutions</th>
<th>Academics</th>
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<th>Total (%)</th>
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<td><strong>Total non-European</strong></td>
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<td>11</td>
<td>8</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>5</td>
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<td>48</td>
<td>(49%)</td>
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<tr>
<td><strong>Total Responses</strong></td>
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<td>18</td>
<td>8</td>
<td>20</td>
<td>11</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>97</td>
<td>(100%)</td>
</tr>
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</table>

* European, Asia-Oceanian, and Latin American include regional international organizations such as the European Securities and Markets Authority (ESMA).  
** International includes global organizations such as international public accounting and auditing firms.
3.2.2 Usefulness of IoA in Comparison to Amortization

Our first research question, *RQ1*, considers whether the IoA provides more useful information than amortization as expected by the IASB in 2004. Having about ten years of experience with the current provisions, stakeholders’ views about the usefulness of the IoA compared to amortization are balanced between the two models. 27% of the comment letters have been identified as expressing the opinion that the IoA provides more useful information than amortization, while 26% have been interpreted as negating the IoA to lead to more useful information. The remaining comment letters (47%) did not take a clear position towards our question. This overall result about the perceptions of stakeholders shows that we still seem to be far from consensus about the preferable method for subsequent goodwill accounting and that much work may still be required to achieve global acceptance of the method.

Table 2, Panel A shows the support of the IoA in terms of usefulness by interest groups. Most interest groups contain heterogeneous opinions on the matter and reflect the balanced views that are found in the overall analysis. However, some differences regarding the support of the IoA can be observed. In particular, 75% of the financial institutions express strong concerns about the usefulness of the IoA. Furthermore, there are more non-financial corporations against (40%) the IoA than in favor (25%), while their trade associations provide the IASB with balanced feedback (Yes = 27%, No = 27%). While the accounting profession shows a similarly balanced pattern (24%, 19%), standard setters perceive the IoA as comparatively useful (39%, 22%) and, thereby, provide support for the position taken by the IASB in 2004. Using the Kruskal-Wallis test to analyze whether the
opinions of interest groups differ with regard to $RQ1$ does not reveal statistically significant differences between the groups.

The analysis by country and accounting system provides insightful results (see Table 2, Panel B). While respondents from Europe tend to negate the higher usefulness of the IoA (Yes = 24%, No = 43%), only 8% of non-European stakeholders were of the view that the IoA does not lead to higher usefulness compared to amortization. Correspondingly, 29% of non-European respondents were supportive of the IoA and 63% did not express a clear view. At the country level, respondents from the UK, the most active single country, sent the highest number of supportive comment letters (6), while only two respondents were against the IoA. Conversely, German respondents show strong disagreement with the assumption of a higher usefulness of the IoA. Only one respondent supported the IoA, while 6 out of the 9 responses from Germany clearly opposed to this accounting treatment. These contrary findings regarding the perceptions of British and German stakeholders are also reflected in a broader analysis with regard to the stakeholders’ accounting system (see Table 2, Panel C). Respondents from countries with accounting systems that are considered as belonging to the group of British-American accounting models are much more positive about the usefulness of the IoA (Yes = 34%, No = 8%) than respondents from countries with a Continental accounting system (18%, 58%). This observation is also evident from a statistical perspective. The Kruskal-Wallis test finds highly significant differences between these two groups of accounting systems ($p < 0.01$).

3.2.3 Is the Impairment Test Rigorous and Operational?

Our second research question, $RQ2$, addresses the stated condition for the provision of useful information by the IoA, i.e. the question whether stakeholders view
the impairment test as rigorous and operational devised. Overall, the results are less positive for the impairment regime than those with regard to RQ1. 40% of the stakeholders express serious concerns about the design of the current impairment test provisions, while only 18% of the comment letters have been rated as assessing the impairment test as rigorous and operational. Again, the remaining 42% either did not address the questions regarding subsequent goodwill accounting at all or did not take a clear position towards the research question.

Similar to our results regarding RQ1, our analysis shows only slight differences between interest groups (see Table 2, Panel A). Among members of the accounting profession, standard setters, regulators, financial analysts, and financial institutions the view that the impairment test is not operational and rigorous devised outweighs the opposite opinion relative strongly. Only non-financial corporations including their trade associations (Yes = 32%, No = 35%) provide a balanced view with support and criticism almost equally represented. Again, no statistically significant differences were found between interest groups.

With regard to the geographic differentiation (see Table 2, Panel B), differences between European and non-European stakeholders are less pronounced than was the case for the assessment of usefulness (RQ1). Respondents from European countries (Yes = 24%, No = 49%) as well as those from countries outside Europe including global organizations (10%, 31%) share concerns about the test being rigorous and operational. Again, at the country-level, UK respondents are most positive with six comment letters indicating that the impairment test is rigorous and operational and only three responses claiming the opposite. Contrary, six stakeholders from Germany are not convinced of the test, while only one German respondent shows clear support. Similarly, constituents from countries with a Brit-
ish-American accounting system are complaining far less about the impairment test (Yes = 24%, No = 18%) compared to those from countries with a Continental system (18%, 64%). Again, the differences between these two groups are statistically significant (p < 0.01).

Taken together with the results regarding RQ1, this indicates that the background of stakeholders and, in particular, the resemblance of their national accounting systems to the issue under consideration is of importance for the perceptions of respondents. As described above, British-American accounting systems were traditionally aiming to provide decision-useful information to providers of capital, while Continental systems were inclined to be conservative. Thus, the rationale underlying the introduction of the IoA, the provision of more useful information, corresponds to the main purpose of British-American accounting systems, while the elimination of regular depreciation and the reliance on an impairment test that necessarily involves managerial judgment may not lead to conservative accounting practice which was a main characteristic of Continental accounting systems.
Is IoA more useful? | Is impairment test rigorous/operational?
--- | --- | ---
Yes | Neutral | No
--- | --- | ---
Panel A: Stakeholders by Interest Group
Accounting Profession | 5 | 12 | 4
Standard Setters | 7 | 7 | 4
Regulators | 2 | 5 | 1
Non-Finl Corporations | 5 | 7 | 8
Non-Finl Corp Trade Assns | 3 | 5 | 3
Financial Analysts | 2 | 1 | 1
Financial Institutions | 1 | 3 | 1
Academics | 4 | 1 | 4
Others | 2 | 4 | 3
Total | 26 | 46 | 25
Percentage | 27% | 47% | 26%

Panel B: Stakeholders by Country and Region
France | 3 | 4 | 3
Germany | 1 | 2 | 6
Switzerland | 1 | 1 | 4
United Kingdom | 6 | 6 | 2
Total European | 12 | 16 | 21
Total non-European | 14 | 30 | 4
Total | 26 | 46 | 25
Percentage | 27% | 47% | 26%

Panel C: Stakeholders by Accounting System
British-American Model | 13 | 22 | 3
Continental Model | 6 | 8 | 19
South American Model | 2 | 1 | 1
Others | 5 | 15 | 3
Total | 26 | 46 | 25
Percentage | 27% | 47% | 26%

Panel B shows results for countries with more than five respondents.

Panel C: The categorization follows the Mueller et al. (1997) model. The following countries have been assigned to the accounting systems:
British-American Model: United Kingdom, Australia, Canada, India, Kenya, Malaysia, Mexico, New Zealand, Singapore, South Africa, United States
Continental Model: Austria, France, Germany, Italy, Spain, Sweden, Norway, Switzerland, Japan
South American Model: Argentina, Brazil
Others: European, China/Hongkong, Mauritius, South Korea, Asia-Oceania, Latin-America, International

Table 2: Support of IoA and impairment test by stakeholders

3.2.4 Arguments used by Stakeholders

The analyses regarding the usefulness of the IoA and the impairment test provide insights into the overall perceptions of stakeholders. However, in order to further develop the subsequent accounting for goodwill, it is important to understand the reasons behind the overall attitudes of stakeholders. As expected, since the ra-
tionale underlying the introduction of the IoA was its assumed superiority over amortization, respondents typically used amortization as a benchmark when commenting on the IoA. Therefore, in the following, we analyze the arguments used by supporters and opponents of the IoA viz-a-viz this alternative (RQ3). This is also in line with our intention to contribute to the upcoming IASB project on subsequent goodwill accounting which explicitly includes assessing the relative merits of the IoA and regular amortization (see section 2.2). Table 3 provides an overview of our framework of categories and arguments as well as the overall frequencies with which the arguments have been mentioned by respondents to the RfI. Table 4 provides an overview of the type of arguments used in favor of and against the IoA and their relative frequency by stakeholder interest groups as well as by country and accounting system.
### Overview of Arguments used by Stakeholders regarding the Impairment-only Approach

**Usefulness Criteria** (Does the impairment-only approach lead to more useful information compared to amortization?)

<table>
<thead>
<tr>
<th>No.</th>
<th>Pro impairment-only approach</th>
<th>Frequency</th>
<th>No.</th>
<th>Contra impairment-only approach</th>
<th>Frequency</th>
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<td><strong>Relevance Criteria</strong></td>
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<tr>
<td>1</td>
<td>Information provided by IoA is relevant/has confirmatory value</td>
<td>16</td>
<td>11</td>
<td>IoA leads to recognition of internally generated goodwill</td>
<td>42</td>
</tr>
<tr>
<td>2</td>
<td>IoA provides more useful information than Amortization</td>
<td>14</td>
<td>12</td>
<td>IoA does not provide useful information - impairment charges come too late</td>
<td>23</td>
</tr>
<tr>
<td>3</td>
<td>Amortization is not of significant value to users</td>
<td>4</td>
<td>13</td>
<td>No impairment losses are recognized because of test on high CGU-level</td>
<td>15</td>
</tr>
<tr>
<td>4</td>
<td>Information provided by IoA has predictive value</td>
<td>3</td>
<td>14</td>
<td>Information of IoA is not used by users</td>
<td>14</td>
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<tr>
<td><strong>Faithful Representation Criteria</strong></td>
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<tr>
<td>5</td>
<td>Amortization is an arbitrary estimate of consumption of goodwill</td>
<td>20</td>
<td>17</td>
<td>Amortization over useful life reflects consumption of goodwill more representationally faithful than IoA</td>
<td>26</td>
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<tr>
<td>6</td>
<td>Goodwill is an asset with limited useful life</td>
<td>22</td>
<td>18</td>
<td>Goodwill is an asset with limited useful life</td>
<td>22</td>
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<tr>
<td>7</td>
<td>Amortization is well-understood and well-established in practice and leads to consistent application</td>
<td>10</td>
<td>19</td>
<td>Amortization is well-understood and well-established in practice and leads to consistent application</td>
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<tr>
<td>8</td>
<td>IoA reduces comparability between organically and anorganically grown companies</td>
<td>8</td>
<td>20</td>
<td>IoA reduces comparability between organically and anorganically grown companies</td>
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<td><strong>Stewardship/Accountability</strong></td>
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<tr>
<td>9</td>
<td>Impairment testing ensures accountability for investments made and provides insights into management views</td>
<td>15</td>
<td>21</td>
<td>High judgment and managerial discretion regarding estimates and assumptions</td>
<td>53</td>
</tr>
<tr>
<td>28</td>
<td>Amortisation means greater accountability</td>
<td>9</td>
<td>22</td>
<td>Managerial discretion in identification and restructuring of and goodwill allocation to CGUs</td>
<td>36</td>
</tr>
<tr>
<td>9</td>
<td>Amortization does not remove need to conduct impairment tests</td>
<td>4</td>
<td>23</td>
<td>Impairment testing is a complex exercise</td>
<td>33</td>
</tr>
<tr>
<td>29</td>
<td>Impairment test is costly and time-consuming</td>
<td>48</td>
<td>24</td>
<td>Valuation concept value in use has shortcomings</td>
<td>26</td>
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<tr>
<td><strong>Cost Constraint on Useful Financial Reporting</strong></td>
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<td>10</td>
<td>Other</td>
<td>10</td>
<td>25</td>
<td>Goodwill impairment is difficult in presence of non-controlling interests</td>
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<tr>
<td>30</td>
<td>Information of IoA is not used by the preparer’s management</td>
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<td>26</td>
<td>Valuation concept fair value less costs of disposal has shortcomings</td>
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<tr>
<td>31</td>
<td>Amortization reduces pressure on identification of intangibles in PPA and determination between asset acquisitions and business</td>
<td>12</td>
<td>37</td>
<td>Compliance with disclosure requirements is not fulfilled</td>
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<td>32</td>
<td>IoA is pro-cyclical when performance is low</td>
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<td>28</td>
<td>Amortisation means greater accountability</td>
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<tr>
<td>33</td>
<td>IoA increases volatility of profit and loss</td>
<td>9</td>
<td>29</td>
<td>Impairment test is costly and time-consuming</td>
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<td>34</td>
<td>Other reporting regimes allow amortization</td>
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<td><strong>Other Criteria</strong></td>
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<td>35</td>
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Table 3: Overview of arguments used by stakeholders regarding the IoA
Table 4: Arguments used by stakeholder group, country and accounting system pro and contra IoA relative to amortization

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<td>Total (97)</td>
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</table>

Panel B: Stakeholders by Country and Region

| Country | Pro | Contra | Pro | Contra | Pro | Contra | Pro | Contra | Pro | Contra | Pro | Contra | Pro | Contra | Pro | Contra | Pro | Contra | Pro | Contra | Pro | Contra |
|---------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|
| France (7) | 13  | 4      | 16  | 1      | 4   | 6      | 4   | 6      | 0   | 44     | 0   | 44     |
| Germany (9) | 1   | 9      | 1   | 1      | 27  | 1      | 2   | 5      | 1   | 9      | 6   | 52     |
| Switzerland (6) | 2   | 5      | 1   | 1 11     | 1   | 1      | 4   | 2      | 6   | 28     |
| United Kingdom (14) | 6   | 13     | 3   | 2      | 28  | 3      | 2   | 4      | 8   | 20     |
| Total European (49) | 15  | 65     | 5   | 13     | 7   | 132    | 6   | 3      | 6   | 3      | 3   | 27     | 6   | 50     |
| Total non-European (48) | 22  | 39     | 4   | 16     | 13  | 100    | 4   | 4      | 9   | 3      | 1   | 21     | 4   | 22     |
| Total (97) | 37  | 104    | 9   | 29     | 20  | 232    | 10  | 7      | 15  | 9      | 4   | 48     | 10  | 72     |

Panel C: Stakeholders by Accounting System

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Numbers in brackets indicate the number of comment letters received from respondents from the respective stakeholder group, country, region or accounting system.
Panel B shows results for countries with more than five respondents.
Panel C: The categorization follows the Mueller et al. (1997) model. See Table 2 for details.

Table 4: Arguments used by stakeholder group, country and accounting system pro and contra IoA relative to amortization.
Arguments in favor of the IoA in Comparison to Amortization

All in all, 10 different arguments have been used 105 times by the respondents as arguments in favor of the IoA. The most arguments have been provided by members of the accounting profession and standard setters (58 arguments) which reflects not only their high representation, but also their expertise as well as their contribution to standard setting. On the contrary, preparers and users of financial reporting together only mentioned 26 arguments in favor of the IoA. From a geographical standpoint, the only single country with respondents mentioning a considerable number of reasons for the IoA is the UK (20). Importantly, respondents from countries with a British-American accounting system (46) provided twice as many arguments in favor of the IoA than respondents with a Continental accounting background (23) reflecting the oppositional positions of these two groups identified above.

To support the IoA, respondents mostly used arguments assigned to Relevance Criteria emphasizing the higher usefulness of impairment information compared to amortization which has also been the assumption by the IASB in 2004. The general statements that the IoA would provide more useful information than amortization or that the IoA provides relevant information or has confirmatory value account for almost one third of all arguments used in favor of the IoA (30 arguments). Noticeably, especially standard setters argue that the IoA provides relevant information and cited relevance arguments 15 times. While only three comment letters claim impairment information to be a signal to the market and/or having predictive value, nine respondents view the disclosures accompanying goodwill impairment tests, especially about the underlying key assumptions, as additional useful information.
However, the most frequently used argument can be found in the *Faithful Representation category*. 21% of the stakeholders argue that amortization is an arbitrary estimate of the consumption of acquired goodwill, an argument which was also a major point for the standard setter’s decision to introduce the IoA in 2004. Remarkably, this argument has been mentioned more often by members of the accounting profession, standard setters and regulators as compared to preparers and users. This indicates that the argument has a conceptual background with limited practical and economic impact for the latter groups. However, as with all arguments in favor of the current provisions, one has to interpret the results with caution, since parties agreeing with the standard setter’s position tend to provide fewer arguments than opponents. Moreover, the boundaries between the criteria are not always clear-cut. Thus, the perception that amortization is an arbitrary estimate of goodwill consumption might also have been a reason for respondents claiming that the IoA provides more useful information than amortization. The idea that the reliability of information provided under an impairment-only regime can be ensured by adequate disclosures and guidance was also brought forward by the IASB when it introduced the IoA (IAS 36.BC198, BC201-202). Ten years later, 10 stakeholders join the standard setter in this argumentation.

Moreover, 15 respondents, four of which stem from the UK, point out that impairment tests ensure management’s accountability for investment decisions or provide insights into the views of the management. Interestingly, only four participants of the PIR argue that the reintroduction of the amortization approach would not lead to high cost savings because firms would have to maintain impairment procedures and know-how to be able to conduct impairment tests when relevant indicators are identified. Irrespective of whether cost (and time) savings would be
material or not, the argument brought forward underlines the importance of a rigorous and operational impairment test.

**Arguments against the IoA in Comparison to Amortization**

Altogether, the respondents used 25 different arguments 501 times, thus, almost five times as many arguments as were used in favor of the IoA. In light of the mixed views on the usefulness of the current accounting model (see RQ1 above), this could be interpreted as support for the notion by Chatham et al. (2010, p. 102) that results about the agreement with the position of the standard setter should be interpreted with caution, since silence or no response “could be construed as agreement.”22 Again, the most arguments were mentioned by the accounting profession and standard setters (234) which we attribute to their relatively high representation amongst respondents as well as to their knowledge about and interest in accounting provisions. However, preparers and users argue more actively against the IoA. In particular, non-financial corporations and their trade associations mentioned 124 arguments. The four financial institutions are similarly active citing 37 single arguments against the IoA.

The geographic analysis shows that the countries with the highest numbers of arguments contra the IoA are France (44), Germany (52), and the UK (66). This shows that, although having a positive overall attitude towards the IoA, the British IFRS community actively discusses the pros and cons of the goodwill accounting methods. Again, the analysis regarding the background of respondents’ accounting systems reflects our results from the overall assessment of the comment letters regarding RQ1 and RQ2. While respondents from countries with British-American accounting systems cited far more arguments supporting the IoA than those from

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22 Moreover, the explicit questions asked in the RfI could be read as emphasizing potential deficiencies rather than strengths of the impairment test (see section 2.2).
countries with Continental systems, the latter mentioned more than 40% of all arguments used against the IoA (205). Respondents with a British-American influence cited only 143 arguments against their preferred method. This reinforces our interpretation that stakeholders’ accounting backgrounds are still reflected in their current views on international accounting topics.

Arguments related to **Relevance** have been cited 133 times. 14% of the respondents claim that the information provided by the IoA would not be used by the users of financial reporting. Similarly, 24% of the comment letters contain the complaint that the IoA does not provide useful information, in particular because of impairment charges being recognized too late. Importantly, this argument has been used by all financial analysts that submitted a response. Although this does not necessarily mean that impairment information is not relevant at all, problems with the timeliness of goodwill impairments and the claim that share prices reflect the information before financial statements do are already acknowledged by the standard setter for some time (see IFRS Foundation, 2012). The arguments that the information is not useful and not used by users of financial reporting are consistent with the weak interest in the subject expressed by the low participation of financial analysts. Moreover, they are in direct opposition to the arguments of some supporters of the IoA that claim that it provides more useful information than amortization which illustrates the controversial nature of the issue.

The notion that the IoA leads, in fact, to the recognition of internally-generated goodwill and the resulting inconsistency with the provisions of IAS 38 *Intangible Assets* has been emphasized by 43% of the respondents. While the IASB was aware of this issue in 2004, the high number of mentions indicates that this inconsistency is still important to stakeholders. In particular, 71% of the members of
the accounting profession, 56% of the standard setters, and 75% of the financial institutions cited this argument (not tabulated). Another argument which has been discussed in 2004 refers to the high levels on which cash-generating units (CGUs) would be defined and, thus, would prevent impairments from being recognized. This argument has been brought forward by 15 respondents during the PIR.

With regard to the relevance of disclosures, much criticism has been addressed. 30% of the respondents complain about the current disclosure requirements accompanying the goodwill impairment test. This includes stakeholders that are not satisfied with the amount of disclosures required, whether insufficient or unnecessary, the non-entity-specific nature or the inappropriateness of the current requirements. Thus, the criticism expressed about the relevance of the disclosure requirements clearly outweighs the perceived benefits.

The arguments related to Faithful Representation contain conceptual and practical considerations as well as arguments related to the rigor and operability of the impairment test. More than a fourth of the respondents (27%) argue generally that the amortization of goodwill over its useful life would reflect the consumption of goodwill more representationally faithful than the information provided by the IoA. Moreover, 10% of the stakeholders emphasize that amortization is well-understood and well-established in practice and, thus, leading to more consistent application. From a conceptual viewpoint, a considerable number of stakeholders (23%) highlight the fact that goodwill is an asset with a limited useful life and should be amortized. These views include respondents that claim to be able to estimate the useful life of goodwill, e.g. because an acquirer should have expectations about over which horizon it would realize synergies, as well as stakeholders that point out that estimations are inherent to accounting and, thus, not limited to
the useful life of goodwill. In particular, those parties arguing that it is possible to estimate the useful life of goodwill are in direct opposition to one of the main arguments for the IoA which is the notion that any amortization period and pattern would be arbitrary. Moreover, some stakeholders argue that the IoA reduces the comparability between firms growing organically and anorganically (8%). Few comment letters (7%), none of which stems from a preparer or user, contain complaints about the compliance with the disclosure requirements, an argument which is not only related to the current provisions, but mainly to the institutional environment.

One third of all arguments (166) used against the IoA are assigned to the subcategory Operational and rigour. Overall, this is consistent with our assessment regarding RQ2 above and shows the serious concerns about the current impairment test provisions. The most widely shared argument concerns the high judgment and managerial discretion that is involved in impairment testing, especially with regard to estimates and assumptions, such as discount rates or cash flow forecasts. More than half of the respondents (55%) emphasize this issue and point to problems related to objectivity and verifiability, such as the opportunity to manage earnings via the delay of impairment charges. Moreover, the managerial discretion involved in the identification and restructuring of as well as the allocation of goodwill to CGUs is subject to criticism by 37% of the respondents. The two arguments regarding the discretion involved have been used to a far larger extent by the accounting profession, standard setters and regulators than by preparers with the notable exception of financial institutions. For example, while 88% of the regulators, 78% of the standard setters, and 62% of the members of the accounting profession complain about the high judgment and managerial discretion that is
involved in impairment testing, only about 35% of all non-financial corporations including their trade associations do so (not tabulated). This indicates that external parties having to rely on or verify the information provided are more critical than preparers that are in the position to use discretion themselves. Additionally, 34% of the respondents acknowledge that the impairment test is a complex and challenging exercise which raises doubts about its operability. In addition, it is noteworthy that the valuation concept ViU to measure the recoverable amount according to IAS 36 has been criticized frequently (27%) and, thus, seems to be far less accepted than the “fair value less cost of disposal” (FVLCOD) (7%). Respondents complaining about the valuation concepts generally also view the respective concept as a source of complexity.

From a stewardship perspective, 9% of the stakeholders favor amortization. Considering the slightly larger number of 15% of the respondents that prefer the IoA regarding this discipline, the controversy becomes visible again. In accordance with the practical considerations described above, cost considerations play an important role in the argumentation against the IoA. 49% of the comment letters highlighted that the impairment test procedures are costly and time-consuming. Comparing the impairment test provisions to the requirements of the amortization approach, the higher level of efforts needed for the IoA are obvious. The high number of stakeholders mentioning cost and cost-benefit arguments is consistent with the high number of responses highlighting the complexity of the impairment test which can be assumed to be the source of the higher burden. The analysis by stakeholder interest group shows that especially non-financial corporations’ trade associations (91%) and financial institutions (100%) are critical of the cost of an-
annual impairment testing, while no stakeholder from the classical user group of financial analysts cited cost arguments.

*Other* arguments have been used 72 times against the IoA. The most cited argument in this category (15% of total responses) was the notion that the management of the reporting company would not use the information provided by the IoA for internal purposes and, consequently, the impairment test would be a mere accounting exercise. Further, 12% of the respondents pointed out that regular amortization would reduce the pressure on the identification of intangible assets during the initial purchase price allocation as well as on the differentiation between asset acquisitions and business combinations, two other topics the IASB considered during the PIR. The argument that the IoA would lead to a “negative spiral” when the performance of the reporting firm is low and the claim that the current provisions increase the volatility of profit or loss have each been cited by 9% of the respondents. 4% of the respondents referred to other accounting regimes that allow goodwill to be amortized in order to argue that amortization is the desirable method. This also includes one reference to the IFRS for SMEs for which the IASB itself chose regular amortization rather than the IoA.

Taking everything into consideration, it can be concluded that the views on the usefulness of the IoA compared to amortization are mixed (*RQ1*) and that both views are supported by a number of arguments that directly oppose each other in some areas. With regard to *RQ2*, the opinion that the impairment test is not rigorous and operational devised prevails among constituents that expressed a clear view. With regard to the rigorousness and operability, arguments related to the discretion as well as the complexity involved in the impairment tests are used extensively. Slight differences in the use of arguments can be observed between in-
Interest groups while the differentiation by accounting system provides meaningful insights into differences between the perceptions of stakeholders from countries with a British-American accounting background and those from countries with a Continental background. It is further noteworthy, that academics provided the smallest number of arguments illustrating the low contribution of this group to the PIR via comment letters.

**Recommendations of Alternative Methods**

Regarding the way forward, some constituents also explicitly recommend an accounting treatment for acquired goodwill. The majority of recommendations include the reintroduction of amortization (16 responses) and the implementation of an amortization approach with impairment tests whenever impairment indicators are present (13). Together, almost a third of the respondents recommended a return to the amortization regime. Only four preparers proposed other alternatives, such as the direct charging of goodwill to equity or amortization to other comprehensive income instead of profit or loss, while in 66% of the cases, no alternative was explicitly recommended. This indicates that, nowadays, the methods to be discussed seem to be reduced to the IoA and regular amortization (with indicator-based impairment tests). As in our analyses above, the contrary opinions of stakeholders with a British-American accounting background and those with a Continental background become obvious: The majority (52%) of the latter group advocates a return to an amortization regime, while this is only recommended by 21% of the former group. Some constituents did not express strong views on the issues analyzed, but rather emphasized that the FASB is currently debating similar issues and any effort to enhance goodwill accounting should be conducted in collabora-


The IASB noted that research evidence supports its view taken when implementing the IoA (IFRS 3 (2004).BC140). In the following, we review this assessment by considering the research conducted. We follow a twofold approach to identify empirical research that is relevant to our research question. First, we screen all individual issues of the highest-ranked academic accounting journals from 2000 until August 2014. In a second step, we go through the references of the relevant articles identified. Overall, we identified 30 studies, mainly from academia, that are relevant to our research questions. Next, we arrange the literature around the arguments identified in our comment letter analysis above to validate the stakeholders’ views and derive implications for the development of goodwill accounting.

Although our focus is on goodwill accounting under IFRS, we also consider studies which are based on data from other accounting regimes, especially US GAAP settings, for the following reasons. First, there are only a limited number of IFRS-studies available. Second, the information content provided by goodwill impairments according to IAS 36 and SFAS 142, respectively, is similar. Importantly,

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23 We are relying on the journal rankings of the Association of Business Schools (ABS) (2010) and the German Academic Association for Business Research (VHB) (2011) as well as on the Excellence in Research for Australia (ERA) (2010) ranking and perform our detailed approach for all accounting-related journals that are ranked in the two highest categories, respectively (see also Appendix 2, Panel A).

24 To complement the articles identified, we further use the search functions on the journals’ websites. We employ the following search terms: ‘Goodwill’, ‘Impairment’, ‘Impairment-only’, ‘IFRS 3’, ‘IAS 36’, ‘SFAS 141’, ‘SFAS 142’, ‘SFAS 144’.
both regimes prescribe an IoA for subsequent goodwill accounting. Although we are not judging the accurateness of the research conducted but interested in what the authors infer from their research, the results presented below should be considered with caution due to several limitations: Most of the studies consider the capital markets of Australia, Europe and the US, while evidence from other regions is rare. In addition, some studies use small sample sizes and/or out-dated data potentially limiting generalizability. Third, a comparison of an amortization regime and the IoA may be problematic especially in US or European settings where firms were allowed to set off goodwill against equity in the past (Boennen and Glaum, 2014). Finally, while we aim to provide a representative overview of the research evidence, we do not claim our findings to be the result of a full review.26

4.2 Results of Literature Review

The research reviewed can be broadly distinguished into five areas that are linked to arguments mentioned by the stakeholders in their comment letter responses during the PIR.

(1) Overall Usefulness of IoA in Comparison to Amortization

Our first research question, RQ1, relates to the usefulness of the IoA. Moreover, we have allocated many arguments of the stakeholders to the category Usefulness Criteria (see Table 3) which, accordingly, can be linked to this research area. Our analysis above shows that stakeholders’ views about the usefulness of the IoA are

25 The proximity between IFRS and US GAAP regarding the accounting for goodwill is also expressed by the FASB which deferred further actions on its project on “Accounting for Goodwill for Public Business Entities and Not-for-Profits” until the IASB published its findings on the PIR on IFRS 3 (FASB, 2014).

26 For a comprehensive literature review on goodwill accounting beyond the subsequent measurement of acquired goodwill we refer to Boennen and Glaum (2014).
mixed and that they mention arguments that are in stark contrast (especially arguments 1, 2, 3, 12, 14).

With regard to the overall usefulness of the IoA, researchers especially conducted value relevance studies which generally jointly test the relevance and reliability of the information (Barth et al., 2001). By investigating whether there is a significant correlation between the goodwill recognized and share prices, value relevance studies provide indirect evidence of the usefulness of goodwill information (Boennen and Glaum, 2014). All value relevance studies reviewed find an increase in value relevance following the implementation of the IoA in comparison to amortization (Chalmers et al., 2008; Aharony et al., 2010; Horton and Serafeim, 2010; Oliveira et al., 2010). Hence, the authors generally conclude that the IoA provides more useful information to users than amortization.

Following a different approach, Moehrle et al. (2001) compare the information content of earnings before amortization and earnings before extraordinary items and find no significant difference. Accordingly, the authors conclude that goodwill amortization amounts are not decision-useful and, thus, provide support for the IoA. The results of the study by Chalmers et al. (2011) also support the proponents of the IoA. Based on an Australian sample, the authors find that goodwill impairments according to IFRS (2006-2008) are more closely aligned with firms’ investment opportunities than amortization charges under Australian GAAP (1999-2005). Therefore, the authors state that “impairment charges better reflect the underlying economic attributes of goodwill than do amortization charges” (p. 634). Concluding, empirical research indicates that the implementation of the

27 We assume this observation to hold for relevance and faithful representation in the meaning of the current Conceptual Framework as well.
IoA for goodwill has enhanced the usefulness of financial reporting in comparison to amortization. For an overview of the studies see Appendix 2, Panel B.

(2) **Relevance of the Information provided by the IoA**

To be relevant, information has to have predictive or confirmatory value or both in order to be able to make a difference in economic decisions by users (Conceptual Framework, QC6-7). Few stakeholders argued that the IoA brings new information to the market which has predictive value (Argument 4) and, thus, helps to predict future outcomes. The predictive value of goodwill information and, thereby, the implementation of the IoA have been examined by several studies, especially with regard to the influence on earnings and cash flow forecasts.

Hamberg et al. (2011) investigate the adoption of IFRS in Sweden and the stock market’s reaction to increased earnings following the abolishment of goodwill amortization (goodwill charges are lower under IFRS than under Swedish GAAP). The authors conclude that investors seem to view the increase in earnings as an indication of higher future cash flows. Chalmers et al. (2012) examine whether the adoption of IFRS has influenced the association between intangible assets, including goodwill, and the accuracy and dispersion of analysts’ earnings forecast. The authors find that the associations between the magnitude and the dispersion of analyst forecast errors and intangible assets have become more negative after the introduction of IFRS. According to the authors, this improvement could be traced back to the implementation of the IoA for goodwill which would, thus, provide more relevant information than amortization.

In the context of US GAAP, Lee (2011, p. 236) finds that the ability of goodwill to predict future cash flows has improved after the introduction of SFAS 142 in 2001 and concludes that “the results support the view taken by the FASB and pro-
ponents of SFAS 142”. Moreover, Jarva (2009) finds that goodwill impairments under SFAS 142 are associated with future expected cash flows. The author shows that goodwill impairments “have significant predictive ability for one- and two-year-ahead cash flows” (Jarva, 2009, p. 1083).

Documenting significant negative stock market returns as a consequence of unexpected goodwill impairments for the time before and after the implementation of SFAS 142, Bens et al. (2011) find indications that the information content of goodwill impairments decreased under the new provisions. However, Zang (2008, p. 63) concludes that SFAS 142 “appears to have made some improvement to goodwill accounting.” The author shows that a larger reported goodwill impairment charge than expected provides value-relevant information and, thus, unexpected impairment charges signal negative future profit-making potential. Hence, stock prices are affected by material changes of the forecasts of future cash flows by investors and analysts revising earnings forecasts downwards. Similarly, Li et al. (2011) find that market participants revise their expectations about future earnings downwards when a goodwill impairment loss is announced. In addition, the authors show that impairment charges are “negatively correlated with average sales growth and growth in operating profits of the subsequent 2 years” (Li et al., 2011, p. 747) and, thus, seem to be a leading indicator with regard to future declines in profitability.

The argument that the results of the IoA are relevant and confirm economic phenomena (Argument 1), i.e. the information provided has confirmatory value, has been brought forward by stakeholders more often than the claim that the IoA provides information that has predictive value. However, a related, frequently cited
counterargument is that impairment charges are delayed, provide little new information and are already reflected in share prices (Argument 12).

Hayn and Hughes (2006) conduct a study based on goodwill generated before the introduction of SFAS 142. They find that goodwill impairments lag, on average, three to four years behind the economic deterioration of goodwill and suggest that the results are also transferable to the accounting requirements of SFAS 142, i.e. the IoA. Although Jarva (2009) provides evidence that impairment charges according to SFAS 142 are associated with future cash flows, the author also finds indications that goodwill impairment charges lag behind the economic deterioration of goodwill. Li and Sloan (2014) investigate the timeliness of goodwill impairments in the periods before and after the introduction SFAS 142. Their findings indicate that goodwill write-offs are relatively less timely after this change because managers would wait until there is convincing evidence that the fair value of goodwill is lower than its carrying amount. According to the authors, this result is not consistent with the FASB’s goal that the IoA provides more useful information. In contrast, while emphasizing that there is still potential for improvement, Chen et al. (2008) find that timeliness of goodwill impairments has been improved under SFAS 142.

Overall, the empirical studies regarding relevance indicate that the predictive value and information content of goodwill accounting may have increased since the introduction of the IoA. Nevertheless, in line with the perceptions of stakeholders, there is evidence that goodwill impairment charges lag behind the economic phenomena (see Appendix 2 – Panel C for an overview). However, a lag between the economic deterioration of goodwill and the recognition of impairment charges
may at least partly be attributed to the fact that financial statements are issued after the reporting period.

(3) Faithful Representation

Financial statements should faithfully (complete, neutral, and free from error) represent the phenomena that they purport to represent (see Conceptual Framework, QC12). While some stakeholders claim that amortization is an arbitrary estimate of the consumption of acquired goodwill (Argument 6), others argue that amortization would more representationally faithful reflect the consumption of goodwill (Argument 17). Besides, many other arguments against the IoA have been assigned to the Faithful Representation category. The most cited arguments concern the fact that the IoA allows managers a wide scope for discretion (Arguments 21 and 22).

While managers could use the discretion inherent to the IoA to convey private information about future cash flows, they could also exercise the discretion opportunistically in order to mislead users of financial reporting about the performance of the firm or to achieve certain contractual outcomes which depend on accounting data, such as earnings (Healy and Wahlen, 1999; Ronen and Yaari, 2008). A number of ‘earnings management’ studies provide evidence in line with impairment charges not only reflecting economic deterioration of goodwill but rather being related to managerial incentives arising from, in particular, income smoothing/big bath accounting\(^{28}\), debt contracting concerns, management compensation, or management reputation (see Boennen and Glaum, 2014).

\(^{28}\) Income smoothing refers to recognizing impairment charges to reduce earnings fluctuation aiming to lower shareholders’ volatility estimates which is associated with reduced bankruptcy risk and higher stock prices (Trueman and Titman, 1988). Big bath accounting describes management’s decision to realize a huge one-time impairment charge in a period in which earnings...
The study by Siggelkow and Zülch (2013) analyses the drivers of fixed assets write-off decisions and the respective magnitude of companies in the EU. The authors find that write-offs do not exclusively reflect economic declines in asset values, but are rather used to manage earnings, in particular with regard to incentives for big bath accounting and income smoothing. Chao and Horng (2013) examine whether managers use discretionary write-offs and abnormal accruals jointly in order to reach earnings targets. The authors observe that discretionary write-offs and discretionary accruals are partial complements for earnings manipulation which is in contrast to managers using their discretion to signal economic realities.\(^{29}\)

Researchers also examined whether firms conduct earnings management if they may violate debt covenants in case they consider a material goodwill impairment charge. Beatty and Weber (2006) argue that companies have motives to delay goodwill impairments and show that debt-covenant concerns mitigate the likelihood of goodwill impairments. For a sample of companies with market indications of goodwill impairment, Ramanna and Watts (2012) find that the frequency of goodwill not being impaired is 69%. The authors further provide some evidence for an association between goodwill non-impairment and debt contracting concerns.

In addition, studies examined whether managers avoid or delay goodwill impairment charges in order to avoid a reduction of their remuneration. For example, Darrough et al. (2014) document that cash- and option-based CEO compensation

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\(^{29}\) This study examines a setting in which the guidance for goodwill impairment is based on a Taiwanese standard (SFAS No. 35).
is significantly reduced after companies have recognized goodwill write-offs. Lapointe-Antunes et al. (2008) find that firms record lower impairment charges when top executives have large unrealized gains on their stock options. Furthermore, Beatty and Weber (2006) as well as Ramanna and Watts (2012) provide evidence for an association between CEO compensation concerns and goodwill non-impairment. Their findings indicate that the probability of firms to encounter goodwill impairments is reduced if a cash bonus is included in the compensation of the CEO.

Similarly, managers may have incentives to use their discretion opportunistically if the impairment of goodwill could adversely affect their reputation. Masters-Stout et al. (2008) hypothesize that new CEOs recognize impairment charges in the early years of their tenure since they were not involved in former acquisition decisions which reduces the risk of reputational costs. Furthermore, reducing the goodwill amounts early lowers the probability and magnitude of potential impairments in the future which could potentially affect their own reputation negatively. In fact, the authors find that “new CEOs impair more goodwill than their senior counterparts” (Masters-Stout et al., 2008, p. 1382). AbuGhazaleh et al. (2011) also examine managers’ use of discretion in determining goodwill write-offs. The authors find that goodwill impairment losses are more likely to be associated with recent CEO changes and, thus, infer that managers use discretion in the course of goodwill impairment tests. Similarly, evidence for an association between CEO tenure and goodwill impairment charges has been provided by a number of other studies (Beatty and Weber, 2006; Zang, 2008; Hamberg et al., 2011; Ramanna and Watts, 2012).
Contrary to the above, few studies find no evidence that firms opportunistically avoid impairments (Jarva, 2009; Lee, 2011). However, on balance, it can be concluded that academic research provides convincing evidence that opportunistic earnings management in the course of goodwill accounting under the IoA is a serious issue (see Appendix 2 – Panel D for an overview).

(4) Cash-generating Units (CGUs)

Stakeholders also complained about too much discretion regarding the identification of CGUs and the allocation and reallocation of goodwill and, thus, the level (CGU) on which the impairment test will be carried out (Argument 22). In this sense, Ramanna and Watts (2012, p. 760) argue that managers could allocate goodwill “to units where subsequent impairment can be masked by the units’ internally generated unrealized gains or losses”, e.g. to accelerate or delay future impairments. According to the literature, there is a discussion on whether the allocation of goodwill to a smaller or a larger number of CGUs helps to prevent impairment charges (Boennen and Glaum, 2014).

For example, Ramanna and Watts (2012) posit that a larger number of units would give managers more possibilities to allocate goodwill and, thus, discretion to prevent impairment charges. They also find indications that a larger number of business segments (as proxy for the number of reporting units/CGUs) is associated with a lower frequency of goodwill write-offs. On the other hand, one could argue that a smaller number of units implicates that each unit is larger and therefore the likelihood of an impairment charge decreases (Boennen and Glaum, 2014). The findings of Lapointe-Antunes et al. (2008) provide support for this reasoning and indicate a positive association between the number of segments and the probability of goodwill write-offs. This indication is supported by studies which consider
the voluntary disclosures of companies or survey results. For example, Duff & Phelps (2013) conduct a survey study in the US among members of Financial Executives International, an organization for senior-level financial executives. The study reveals that two-thirds of the public companies have five or less reporting units, while only 20% of the public companies indicated that they have more than ten reporting units. Glaum and Wyrwa (2011) provide a detailed assessment of disclosures of IFRS financial statements with regard to the impairment of goodwill. Examining how goodwill is allocated to CGUs, the authors’ findings indicate that goodwill is concentrated in a small number of CGUs (see Appendix 2, Panel E).

Concluding, there is no consensus on the prevailing approach to allocate goodwill to CGUs, if the avoidance of goodwill impairments is the desired outcome. Moreover, academic research provides conflicting evidence on whether a larger or smaller number of CGUs helps to prevent impairment losses. Thus, evidence regarding an abuse of managerial discretion in the course of the identification of CGUs and the allocation of goodwill to influence the results of impairment tests is not yet conclusive.

(5) Disclosures

Proponents of the IoA contend that the information provided in the notes to financial statements is beneficial and relevant to users (Argument 5) and that the disclosures help to ensure the reliability of the information provided by the IoA (Argument 7). By contrast, the opponents of the current provisions argue that the disclosures are insufficient, inappropriate, non-entity-specific and therefore overall non-informative (Argument 17). Moreover, they criticize that preparers do not fulfil the disclosure requirements related to the impairment test (Argument 27).
The review team of the UK Financial Reporting Council (2008) examined the December 2007 annual reports of UK firms which had reported significant amounts of goodwill on their balance sheets. Regarding the disclosures presented by the 32 firms, the review team assessed 17 reports as “rather uninformative”, 9 as “useful” and 6 as “very useful”. Similarly, the European Securities and Markets Authority (ESMA) (2013) evaluated the disclosures in the 2011 IFRS financial statements of firms with significant amounts of goodwill. The regulator observed that disclosures were often not entity-specific and of a boilerplate nature. Only 60% of the firms provided information regarding their key assumptions beyond the discount rate and the growth rate. Overall, the studies support the perceptions expressed by stakeholders that the disclosures are (partly) uninformative.

With regard to compliance with the disclosure requirements, Glaum et al. (2013) examined a sample of firms from 17 European countries. The authors find substantial non-compliance with the disclosure requirements of the provisions of IAS 36 for the year 2005. They further provide evidence for the role of company- and country-specific factors in determining compliance levels under IFRS. In addition, Carlin and Finch (2010) investigate the goodwill reporting practices of Australian firms and find evidence of continued high levels of non-compliance with the accounting standard over the first two years of IFRS reporting (2006-2007). Again, the perceptions of stakeholders are reflected in empirical research findings. Appendix 2, Panel F provides an overview of the research regarding disclosures.
5 Main Findings, Discussion and Implications for Standard Setting

Two Perspectives: Stakeholder Perceptions and Research Findings

Overall, the perceptions of stakeholders regarding the usefulness of the IoA in comparison to amortization are balanced. In the light of these mixed views, our finding that academic research tends to support the assumption of a higher usefulness of the IoA is remarkable. In particular, the fact that no study reviewed argues for a higher usefulness of amortization suggests the introduction of the IoA improved financial reporting quality. However, the majority of stakeholders that express a clear view on the matter argue that the impairment test is not rigorous and operational devised and research provides compelling evidence that managers use the discretion involved in impairment testing opportunistically. Accordingly, it seems that the condition for the IoA providing more useful information than amortization, i.e. an impairment test that is rigorous and operational devised, is not fulfilled. The fact that the results of academic research on the use of managerial discretion in impairment testing are consistent with the perceptions of stakeholders, mainly from practice, also indicates that current empirical research is (at least in this context) appropriately capturing reality. Thus, our results may also mitigate some of the concerns regarding the practical relevance of academic accounting research. In a similar vein, the research conducted regarding CGUs and disclosures is largely consistent with the concerns expressed by stakeholders and addresses questions of high practical relevance demonstrating the potential contribution of academic research to standard setting. On the basis of our comparison of current stakeholder perceptions to the literature, further research opportunities of practical relevance can be exploited especially regarding the cost of impairment testing and the effects of the IoA (versus amortization) on the stewardship func-
tion of financial reporting. Arguments from both areas are often used by stakeholders but rarely examined by academics.

Recycling of Arguments Used in 2004

Our content analysis sheds light on the reasons why stakeholders prefer either of the methods for subsequent goodwill accounting \(RQ3\), the IoA or amortization. Remarkably, many of the arguments brought forward when the IoA was introduced in 2004 have been used by respondents during the PIR on IFRS 3 about ten years later (see Appendix 1). In particular, well-known conceptual arguments are cited frequently to support the IoA (“Amortization is an arbitrary estimate of goodwill”, Argument 6) as well as to argue against the IoA (“IoA leads to recognition of internally generated goodwill”, Argument 11). In addition to the 12 arguments that can specifically be linked to the Basis for Conclusions or Dissenting Opinions accompanying IFRS 3 (2004) and IAS 36 (2004) and account for about 46% of the total arguments used, one could also view some of the arguments of the subcategory Operational and rigour as reflecting (and confirming) general concerns about an unreliable impairment test which were expressed in 2004 (see e.g. IFRS 3 (2004).DO12). Concluding, the frequent recycling of arguments used already in 2004 shows that some of the conceptual arguments are inherent to the respective methods and still considered as important (e.g. Arguments 6 and 11) and that practical arguments have materialized during the time when the IoA was applied (e.g. concerns about the cost of the IoA, Argument 29).

British-American vs. Continental Stakeholder Perceptions

Throughout our analyses, we observe that stakeholders from countries with a British-American accounting system are more positive towards the IoA and the impairment test than stakeholders with a Continental accounting background. In par-
ticular, the majority of the respondents of the former group that express a clear view perceives the IoA as providing more useful information than amortization and the impairment test as rigorous and operational, while the latter group disagrees with these perceptions. Accordingly, ‘British-American stakeholders’ present far more (less) arguments in favor of (against) the IoA than ‘Continental stakeholders’. In addition, more than half of the ‘Continental stakeholders’ explicitly recommend a return to an amortization regime. These results complement recent research which documents that international differences persist under the shared IFRS reporting regime with regard to accounting policy choices (e.g. Kvaal and Nobes, 2012) by highlighting differences about attitudes towards accounting methods that had to be applied mandatorily for a decade. Moreover, our findings support research that argues that the traditional dichotomy between British-American and Continental European accounting practices can still be found despite the widespread application of IFRS (Nobes, 2011).

We interpret these findings as the persistence of the traditional accounting orientation in the current attitudes of accountants. Traditionally, British-American accounting systems were oriented towards decision-usefulness as opposed to the conservative Continental accounting practices that served other purposes, especially government-imposed requirements (Mueller et al., 1997). Accordingly, the aim of the introduction of the IoA which was assumed to provide more useful information than amortization is likely to correspond better to the needs of British-American systems and may, thus, be more favorably perceived by ‘British-American stakeholders’. Admittedly, financial reporting under IFRS also aims to provide information that is useful to economic decisions of investors and creditors (Conceptual Framework, OB2). Nevertheless, our observation that the background
of stakeholders still seems to be an important determinant of their opinion expressed in comment letters is of interest to the IASB that intends to develop globally accepted financial reporting standards (Preface to IFRSs, par. 6(a)).

**Implications for Standard Setting**

Considering the mixed views of stakeholders regarding the usefulness of the IoA and the fact that research evidence tends to support the usefulness of the IoA, a withdrawal of the current concept and a return to an amortization approach (as explicitly advocated by about 30% of the stakeholders) is not advisable in the short-term. In addition, consistent with research documenting that managers use the discretion provided by impairment tests opportunistically, stakeholders complained about the rigorousness and operability of the impairment test as well as the procedures being complex, costly and time-consuming. On the basis of our analyses, the measures planned by the IASB seem appropriate. The upcoming research project on subsequent goodwill accounting including the relative advantages of the IoA and amortization plus impairment tests when indicators of impairment are identified addresses the fact that substantial parts of the IFRS community doubt the usefulness of the IoA. Moreover, it expresses that amortization and the IoA are the two methods which are intensely discussed, to date. The project aiming to improve and simplify the impairment test addresses the respective demands identified above.

On the basis of our results, the following improvements that could be introduced in a relatively timely manner could be discussed during the upcoming IASB projects. First, stakeholders often complained about the shortcomings of the valuation concept ViU, whereas only few stakeholders explicitly mentioned the flaws of the valuation concept FVLCOD. Although, the concept of recoverable amount is clear
and concise, after ten years of experience, the valuation concept ViU did especially not overcome difficulties related to (1) the lack of risk equivalence between the discount rate and cash flows (see also IAS 36.BCZ54), (2) being a pre-tax concept (see IAS 36.BC91) and (3) cash flow projections (see IAS 36.33, IAS 36.BCZ24). Accordingly, we question whether the concept of the recoverable amount is necessary or a single valuation concept, i.e. the fair value as under US GAAP, could be sufficient. This would reduce complexity and cost, improve comparability due to a single valuation concept applied by all firms, enhance convergence with US GAAP, and align the valuation concepts applied in the course of the purchase price allocation and in the subsequent measurement on the basis of fair values. Second, to address the concerns about the costs of impairment testing, it may be worth to consider whether a calculation has to be performed in every case, especially when there is significant “headroom”. In some cases, a qualitative assessment could be sufficient to ensure that the book value of goodwill is recoverable. The introduction of a qualitative step to be performed first would also enhance convergence with US GAAP since the FASB implemented a so-called “step zero” already in 2011. In fact, IAS 36.99 already contains certain rules allowing the most recent calculations made in former periods to be used in the current period, if specific conditions are met. Application of this paragraph could perhaps already provide improvements of the cost-benefit conflict. In addition, since many stakeholders complained about the current disclosure requirements and research supports these views, the IASB could take a fresh look at which disclosures should be provided in order to balance the information needs of users with the refusal of preparers to disclose sensitive information. Finally, the need for further guidance regarding difficult aspects, e.g. the treatment of non-controlling interests or corpo-
rate assets when testing goodwill for impairment, expressed by stakeholders could be addressed in the upcoming projects.

6 Conclusion

The subsequent accounting for goodwill has long been a topic of debate. The IASB has recently re-opened this debate during its PIR on IFRS 3 during which the effects of the introduction of the IoA for goodwill in 2004 were to be assessed. As a result of the PIR, the IASB decided to initiate research projects on the subsequent accounting for goodwill and the effectiveness and complexity of the impairment test. Providing a detailed analysis which is not subject to self-evaluation concerns, we contribute to the current debate by examining the effects of the introduction of the IoA from two perspectives, namely stakeholder perceptions and research findings. This is of particular interest since, when the IoA was introduced, the IASB noted that the majority of respondents to the foregoing exposure draft that expressed a clear view generally supported an amortization approach complemented by impairment tests whenever an indicator for impairments is identified and, thus, did not support the IoA (see IFRS 3 (2004).BC137-139).

Our content analysis of comment letters submitted during the PIR shows that stakeholders’ views on the usefulness of the IoA in comparison to amortization are mixed, whereas stakeholders that express a clear view by majority raise concerns about the impairment test not being rigorous and operational devised. Moreover, we find that stakeholders frequently use arguments to support either the IoA or amortization that have already been used when the IoA was introduced which indicates that conceptual arguments are inherent to the respective approaches and practical concerns have materialized. Throughout our analyses, we find that stakeholders with a British-American accounting background are more positive
towards the IoA and the impairment test than stakeholders with a Continental background which indicates the persistence of the traditional accounting orientation in the current attitudes of accountants.

Our review of empirical research tends to support the assumption of the IASB that the IoA provides more useful information than amortization. However, academic research also provides compelling evidence for the opportunistic use of managerial discretion in impairment testing which supports the concerns expressed by stakeholders about the impairment test. On the basis of our results, the measures planned by the IASB seem to be appropriate. The project on subsequent goodwill accounting acknowledges that much needs to be done to achieve a globally accepted goodwill accounting approach which satisfies the needs of users and is practically feasible and the project aiming to improve the impairment test accounts for the widespread concerns. To address some of these concerns regarding the impairment test, one may discuss to eliminate the valuation concept ViU to reduce complexity and the room for discretion. In addition, the introduction of a qualitative assessment to be performed first to evaluate whether calculations have always to be performed, especially when there is significant “headroom” and little changes in the economic environment, may reduce costs.

Our paper is subject to certain limitations. Content analysis, although done by two researchers independently, remains subjective. Thus, we do not claim our analysis to be the only defendable outcome of a content analysis. In addition, our analysis is limited to the comment letters publicly available and therefore does not represent the perceptions of the whole IFRS community. With regard to our literature review, we cannot claim our findings to be the result of a holistic review. However, especially regarding the overall questions, we feel confident that we have re-

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viewed a sufficient volume of evidence to contrast the perceptions expressed by the comment letter responses.
Appendix 1: Description of Criteria used in Content Analysis

In the following table (see next page), we explain the meaning of the arguments according to which the comment letters have been analyzed. Because of the high granularity and the large number of arguments, the lines between the arguments are not clear-cut in every case. Therefore, some of the potential interrelationships are addressed in the explanations.

In the column “2004”, we mark arguments that have already been used as main arguments in the discussion upon the introduction of the IoA in 2004 as derived from the Basis for Conclusions and/or Dissenting Opinions on IFRS 3/IAS 36 (2004).
### Arguments pro IoA/contra Amortization

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<tr>
<th>No.</th>
<th>Argument</th>
<th>Description</th>
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<tbody>
<tr>
<td>1)</td>
<td>Information provided by IoA is relevant/has confirmatory value</td>
<td>The <em>Relevance</em> arguments used in favor of the IoA include responses that claimed that (1) the information provided by IoA is relevant/has confirmatory value, (2) the IoA provides more useful information than amortization, (3) amortization is not of significant value to users and (4) the information provided by IoA has predictive value. While argument (4) includes only respondents that view impairment information as having predictive value, bringing new information to the market or being a signal, argument (1) includes comments that value the confirmatory nature of impairment information as well as general statements that information provided by the IoA is relevant.</td>
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<tr>
<td>2)</td>
<td>IoA provides more useful information than amortization</td>
<td></td>
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<tr>
<td>3)</td>
<td>Amortization is not of significant value to users</td>
<td></td>
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<tr>
<td>4)</td>
<td>Information provided by IoA has predictive value</td>
<td></td>
</tr>
<tr>
<td>5)</td>
<td>Disclosures provide useful additional information</td>
<td>The subcategory <em>Relevance: Disclosures</em> contains the argument that disclosures provide useful additional information. The main benefit is seen in the disclosure of key assumptions that have been used in the impairment test.</td>
</tr>
<tr>
<td>6)</td>
<td>Amortization is an arbitrary estimate of consumption of goodwill</td>
<td>The underlying rationale of this <em>Faithful Representation</em> argument is that, generally, the useful life of acquired goodwill as well as the pattern in which it diminishes are not possible to predict. The argument also includes those respondents claiming conceptual superiority of the IoA compared to amortization.</td>
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<tr>
<td>7)</td>
<td>Disclosures/Guidance ensure reliability of IoA</td>
<td>This argument claims that disclosure requirements and guidance (e.g. regarding the definition of CGUs) improve the reliability of the IoA and is used as a counterargument to those that argue that impairment tests are not reliable due to the high level of discretion.</td>
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<tr>
<td>8)</td>
<td>Impairment testing ensures accountability for investments made and provides insights into management views</td>
<td>The category <em>Stewardship/Accountability</em> includes responses that stated that impairment testing ensures accountability for investments made and provides insights into management views. This criterion encompasses stewardship and accountability aspects, e.g. a better assessment of the performance of the acquired business or the realization of synergies, as well as the benefits of the IoA regarding the provision of information about the views of the management about the acquired business.</td>
</tr>
<tr>
<td>9)</td>
<td>Amortization does not remove need to conduct impairment tests</td>
<td>The <em>Cost</em> argument used was the claim that a return to amortization would not remove the need to conduct impairment tests, since indication-based tests would still be required. If impairment reviews would not be done regularly costs would not be reduced substantially since firms still must be able to conduct the test in case of impairment indications, while the quality of the tests would suffer.</td>
</tr>
<tr>
<td>10)</td>
<td>Other</td>
<td>Other includes arguments that have seldomly been used or are hardly connected to the main categories. Examples include responses that due to the IoA, the acquirer better analyzes the transaction before the closure, e.g. through use of scenarios, or that many other aspects of accounting also involve judgment about estimates and assumptions and thus this would not be a particular problem of the IoA.</td>
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## Arguments contra IoA/pro Amortization

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<th>No.</th>
<th>Argument</th>
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<tr>
<td>11)</td>
<td>IoA leads to recognition of internally-generated goodwill</td>
<td>Respondents explained that the recognition of internally-generated goodwill is inconsistent with the principles of IAS 38, may provide a cushion against the recognition of impairment losses, and deteriorates comparability among companies growing organically/anorganically.</td>
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<tr>
<td>12)</td>
<td>IoA does not provide useful information - impairment charges come too late</td>
<td>This argument focuses on the aspect that impairment charges often come late and do not provide new information. Respondents also stated that necessary impairments are often delayed until a time when the impairment is already anticipated and reflected in share prices.</td>
</tr>
<tr>
<td>13)</td>
<td>No impairment losses are recognized because of test on high CGU-level</td>
<td>This argument stems from the view that no impairment losses are recognized because of testing goodwill on a high CGU-level and, thus, is a source for interrelationships between arguments, since the claim that a cushion is built by internally-generated goodwill (argument 11) also points to the argument that no impairments will be charged, and argument 22 also addresses questions around the topic of CGUs including discretion in determining the test level.</td>
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<tr>
<td>14)</td>
<td>Information of IoA is not used by users</td>
<td>Such comments argued, for example, that analysts would eliminate impairment charges in order to enhance the comparability of information on profit or loss.</td>
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<tr>
<td>15)</td>
<td>Goodwill is tested on CGUs that are subject to restructuring - Disconnection between what has been bought and what is tested</td>
<td>This argument focuses on the fact that, after reorganizations, goodwill is tested on CGUs that might have little similarities to the originally acquired business. The argument further includes respondents that only complained about the disconnection between what is tested by impairment tests and what has been bought originally without referring explicitly to the restructuring of CGUs.</td>
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<tr>
<td>16)</td>
<td>Insufficient/Inappropriate/non-entity-specific/redundant/unnecessary disclosures</td>
<td>This includes comments that the disclosure requirements regarding the impairment test are not sufficient, e.g. to understand the results and the level of judgment applied, too excessive or unnecessary, or conveying sensitive information. Respondents complaining about the disclosure requirements themselves (not about their application in practice, see argument 27) were assigned to this argument.</td>
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<td>17)</td>
<td>Amortization over useful life reflects consumption of goodwill more representationally faithful than IoA</td>
<td>This argument contains claims that amortization over useful life reflects consumption of goodwill more representationally faithful than IoA, e.g. because, although amortization may be arbitrary, the fact that the value of goodwill diminishes over its useful life cannot be ignored.</td>
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<tr>
<td>18)</td>
<td>Goodwill is an asset with limited useful life</td>
<td>This also includes statements claiming that the useful life of goodwill is predictable, because the acquirer has an expectation of how synergies are realized or, because of the experience gained since IFRS 3 is applied, firms developed professional judgment allowing the determination of an appropriate amortization period for each business acquired. Moreover, the argument that the useful life of goodwill is not predictable is claimed to be invalid since the same is true for other assets and estimations are inherent in accounting.</td>
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</table>
19) Amortization is well-understood and well-established in practice and leads to consistent application

20) IoA reduces comparability between organically and anorganically grown companies

21) High judgment and managerial discretion regarding estimates and assumptions

22) Managerial discretion in identification and restructuring of and goodwill allocation to CGUs

23) Impairment testing is a complex exercise

24) Valuation concept value in use has shortcomings

25) Goodwill impairment is difficult in presence of non-controlling interests

26) Valuation concept fair value less costs of disposal has shortcomings

27) Compliance with disclosure requirements is not fulfilled

28) Amortization means greater accountability

29) Impairment test is costly and time-consuming

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<th>Argument</th>
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<th>Description</th>
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<tr>
<td>19) Amortization is well-understood and well-established in practice and leads to consistent application</td>
<td>IFRS 3, BC139c, DO8</td>
<td>This argument focuses on the practical benefits of amortization compared to the IoA including easy and more consistent application expected to result in higher comparability.</td>
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<tr>
<td>20) IoA reduces comparability between organically and anorganically grown companies</td>
<td>IFRS 3, DO9</td>
<td>This argument also includes comments arguing that amortization of goodwill would increase comparability between firms that grow organically and those growing primarily through acquisitions.</td>
</tr>
<tr>
<td>21) High judgment and managerial discretion regarding estimates and assumptions</td>
<td>IFRS 3, DO12</td>
<td>This argument includes comments criticizing the impairment provisions and pointing out the potential for (opportunistic) earnings management reducing the reliability of impairment information. It encompasses complaints about the subjectivity and the resulting implications for auditors, i.e. audibility is problematic and audit risk increases.</td>
</tr>
<tr>
<td>22) Managerial discretion in identification and restructuring of and goodwill allocation to CGUs</td>
<td>IFRS 3, DO12</td>
<td>This argument complains about the subjectivity inherent to the current impairment approach with regard to CGU-related questions including the level of the impairment test.</td>
</tr>
<tr>
<td>23) Impairment testing is a complex exercise</td>
<td>IFRS 3, DO12</td>
<td>This argument encompasses general and specific complaints about the complexity of the impairment test according to IAS 36.</td>
</tr>
<tr>
<td>24) Valuation concept value in use has shortcomings</td>
<td>IFRS 3, DO12</td>
<td>This argument addresses problems with the value concept ViU. Difficulties include, for example, the projection of future cash flows or the determination of the discount rate.</td>
</tr>
<tr>
<td>25) Goodwill impairment is difficult in presence of non-controlling interests</td>
<td>IFRS 3, DO12</td>
<td>This argument criticizes the complexity of the impairment test specifically arising from the presence of non-controlling interests.</td>
</tr>
<tr>
<td>26) Valuation concept fair value less costs of disposal has shortcomings</td>
<td>IFRS 3, DO12</td>
<td>This argument addresses problems with the value concept FVLCOD. Difficulties include, for example, the projection of future cash flows or the determination of the discount rate.</td>
</tr>
<tr>
<td>27) Compliance with disclosure requirements is not fulfilled</td>
<td>IFRS 3, DO12</td>
<td>This includes complaints about the application of the disclosure requirements (not with the requirements themselves, see argument 16).</td>
</tr>
<tr>
<td>28) Amortization means greater accountability</td>
<td>IFRS 3, DO12</td>
<td>This argument includes claims that amortization charges to profit or loss mean greater accountability of management decisions, especially because this provides a link between income and costs from an acquisition. Other opinions expressed were that analysts are interested in the expected payback period and view amortization of goodwill over this period as useful information in terms of stewardship.</td>
</tr>
<tr>
<td>29) Impairment test is costly and time-consuming</td>
<td>IFRS 3, DO12</td>
<td>This includes concerns about high costs and effort originating from the need to conduct annual reviews as well as comments referring to an unfavorable cost-benefit relation.</td>
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</table>
### 30) Information of IoA is not used by the preparer's management

This argument is not directly linked to the goal of financial reporting according to the Conceptual Framework of the IASB and, thus, assigned to *Other Criteria*.

Respondents using this argument are concerned with the identification of intangibles in a purchase price allocation as well as with the differentiation between assets acquisitions and business combinations. Both problems would be less important, if goodwill was amortized, i.e. treated as other intangibles.

This argument points to the negative spiral which firms may experience through additional impairment charges in times when their performance is low.

This argument points to the less regular impact on profit or loss in comparison to annual amortization charges.

Respondents referred to other reporting regimes which allowed/required amortization instead of an IoA.

Arguments against the IoA that were not assigned to the arguments above. Examples include responses which refer to the IASB project related to loan-loss provisioning with which amortization is seen to be more consistent or a comment that the gearing ratio has lost its significance because of delayed impairments led to inflated equity.
Appendix 2: Overview of Notable Goodwill Accounting Studies
published in Accounting Journals (2000-2014)

Panel A

Accounting journals searched for goodwill accounting:

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<td>ABACUS</td>
<td>ABACUS: a Journal of Accounting and Business Studies</td>
<td>3</td>
<td>A</td>
<td>B</td>
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<tr>
<td>ABR</td>
<td>Accounting and Business Research</td>
<td>3</td>
<td>A</td>
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<tr>
<td>A&amp;F</td>
<td>Accounting and Finance</td>
<td>2</td>
<td>B</td>
<td>C</td>
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<tr>
<td>AAJJ</td>
<td>Accounting Auditing and Accountability Journal</td>
<td>3</td>
<td>A*</td>
<td>C</td>
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<td>ABFH</td>
<td>Accounting, Business and Financial History</td>
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<td>A</td>
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<td>AF</td>
<td>Accounting Forum</td>
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<tr>
<td>AH</td>
<td>Accounting History</td>
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<td>A</td>
<td>-</td>
</tr>
<tr>
<td>AHo</td>
<td>Accounting Horizons</td>
<td>3</td>
<td>A</td>
<td>-</td>
</tr>
<tr>
<td>AGS</td>
<td>Accounting, Organizations and Society</td>
<td>4</td>
<td>A*</td>
<td>-</td>
</tr>
<tr>
<td>AR</td>
<td>Accounting Review</td>
<td>4</td>
<td>A*</td>
<td>A</td>
</tr>
<tr>
<td>AIA</td>
<td>Advances in Accounting</td>
<td>-</td>
<td>A</td>
<td>C</td>
</tr>
<tr>
<td>AJPT</td>
<td>Auditing: A Journal of Practice and Theory</td>
<td>2</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>AAR</td>
<td>Australian Accounting Review</td>
<td>-</td>
<td>B</td>
<td>-</td>
</tr>
<tr>
<td>BRA</td>
<td>Behavioral Research in Accounting</td>
<td>3</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>BAR</td>
<td>British Accounting Review</td>
<td>3</td>
<td>A</td>
<td>C</td>
</tr>
<tr>
<td>CJS</td>
<td>Canadian Journal of Administrative Sciences</td>
<td>2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>CAR</td>
<td>Contemporary Accounting Research</td>
<td>3</td>
<td>A*</td>
<td>A</td>
</tr>
<tr>
<td>CPA</td>
<td>Critical Perspective on Accounting</td>
<td>3</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>EAR</td>
<td>European Accounting Review</td>
<td>3</td>
<td>A</td>
<td>C</td>
</tr>
<tr>
<td>FAM</td>
<td>Financial Accountability and Management</td>
<td>3</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>JAA</td>
<td>Journal of Accounting and Economics</td>
<td>4</td>
<td>A*</td>
<td>A</td>
</tr>
<tr>
<td>JACOC</td>
<td>Journal of Accounting and Organizational Change</td>
<td>1</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>JAPP</td>
<td>Journal of Accounting and Public Policy</td>
<td>3</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>JAAF</td>
<td>Journal of Accounting, Auditing and Finance</td>
<td>3</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>JAE</td>
<td>Journal of Accounting Education</td>
<td>2</td>
<td>A</td>
<td>D</td>
</tr>
<tr>
<td>JAL</td>
<td>Journal of Accounting Literature</td>
<td>3</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>JAR</td>
<td>Journal of Accounting Research</td>
<td>4</td>
<td>A*</td>
<td>A</td>
</tr>
<tr>
<td>JBFA</td>
<td>Journal of Business Finance and Accounting</td>
<td>3</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>JJAR</td>
<td>Journal of International Accounting Research</td>
<td>2</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>JIFMA</td>
<td>Journal of International Financial Management &amp; Accounting</td>
<td>2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>JIMR</td>
<td>Journal of Management Accounting Research</td>
<td>2</td>
<td>A*</td>
<td>B</td>
</tr>
<tr>
<td>MAR</td>
<td>Management Accounting Research</td>
<td>3</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>RAS</td>
<td>Review of Accounting Studies</td>
<td>4</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>RAF</td>
<td>Review of Accounting and Finance</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>RQFA</td>
<td>Review of Quantitative Finance and Accounting</td>
<td>3</td>
<td>-</td>
<td>B</td>
</tr>
<tr>
<td>LIA</td>
<td>The International Journal of Accounting</td>
<td>-</td>
<td>A</td>
<td>C</td>
</tr>
</tbody>
</table>

Interpretation of ranking: ERA/VHB: A* = Best or leading journal; A = a highly regarded journal; B = a well-regarded journal; C = a regarded Journal; D = modest standard; ABS: 4* = a world elite journal; 4 = a top journal; 3 = a highly regarded journal; 2 = a well-regarded journal; 1 = modest standard; - = not ranked.
### Panel B

**Results of Empirical Studies Comparing the Usefulness of Non-amortization and Amortization**

<table>
<thead>
<tr>
<th>Study (by year)</th>
<th>Journal</th>
<th>Sample Period</th>
<th>Sample Size</th>
<th>Country</th>
<th>Accounting Standard</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chalmers et al. (2008)</td>
<td>AAR</td>
<td>2005-2006</td>
<td>599</td>
<td>Australia</td>
<td>IFRS</td>
<td>Goodwill amounts under IFRS are more value-relevant (associated with share prices) than under Australian GAAP for the same year.</td>
</tr>
<tr>
<td>Aharony et al. (2010)</td>
<td>EAR</td>
<td>2004-2005</td>
<td>2,298 European Union (14 countries)</td>
<td>IFRS</td>
<td>Adoption of IFRS has increased the value relevance of goodwill.</td>
<td></td>
</tr>
<tr>
<td>Horton and Serafeim (2010)</td>
<td>RAS</td>
<td>2006</td>
<td>297</td>
<td>UK</td>
<td>IFRS</td>
<td>Stock prices react significantly to the publication of reconciliation documents regarding goodwill from UK GAAP to IFRS.</td>
</tr>
<tr>
<td>Oliveira et al. (2010)</td>
<td>EAR</td>
<td>1998-2008</td>
<td>354</td>
<td>Portugal</td>
<td>IFRS</td>
<td>Value relevance of goodwill increased under IFRS (impairment-only approach) compared to Portuguese GAAP (amortization).</td>
</tr>
<tr>
<td>Chalmers et al. (2011)</td>
<td>A&amp;F</td>
<td>1999-2008</td>
<td>4,310</td>
<td>Australia</td>
<td>IFRS</td>
<td>Impairment is in comparison to amortization a better method to capture the underlying economic attributes of goodwill.</td>
</tr>
</tbody>
</table>

### Panel C

**Results of Empirical Studies regarding Relevance and Timeliness**

<table>
<thead>
<tr>
<th>Study (by year)</th>
<th>Journal</th>
<th>Sample Period</th>
<th>Sample Size</th>
<th>Country</th>
<th>Accounting Standard</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hamberg et al. (2011)</td>
<td>EAR</td>
<td>2001-2007</td>
<td>1,891</td>
<td>Sweden</td>
<td>IFRS</td>
<td>Reported earnings increased as a consequence of implementation of impairment-only approach. Stock market revised companies upwards following the IFRS adoption.</td>
</tr>
<tr>
<td>Lee (2011)</td>
<td>JAPP</td>
<td>1995-2006</td>
<td>13,848</td>
<td>USA</td>
<td>US-GAAP</td>
<td>Goodwill's ability to predict future cash flows has improved since the FASB adopted SFAS 142.</td>
</tr>
<tr>
<td>Zang (2008)</td>
<td>RAF</td>
<td>2002</td>
<td>969</td>
<td>USA</td>
<td>US-GAAP</td>
<td>Only unanticipated portions of goodwill impairments convey unfavorable news to the market, whereas the expected portions do not.</td>
</tr>
<tr>
<td>Li et al. (2011)</td>
<td>RAS</td>
<td>1996-2006</td>
<td>1,584</td>
<td>USA</td>
<td>US-GAAP</td>
<td>Investors and analysts revise their expectations downward on the announcement of an impairment charge. Goodwill impairment is a leading indicator of a decline in future profitability.</td>
</tr>
<tr>
<td>Chen et al. (2008)</td>
<td>AIA</td>
<td>2002</td>
<td>1,763</td>
<td>USA</td>
<td>US-GAAP</td>
<td>Timeliness of impairments has been improved after adoption of SFAS 142, while there is still room for improvement.</td>
</tr>
<tr>
<td>Li and Sloan (2014)</td>
<td>-</td>
<td>1996-2011</td>
<td>29,485</td>
<td>USA</td>
<td>US-GAAP</td>
<td>Goodwill impairments in the period before implementation of SFAS 142 are timelier than after the introduction of the impairment-only approach.</td>
</tr>
</tbody>
</table>
### Panel D

#### Results of Empirical Studies regarding Earnings Management

<table>
<thead>
<tr>
<th>Study (by year)</th>
<th>Journal</th>
<th>Sample Period</th>
<th>Sample Size</th>
<th>Country</th>
<th>Accounting Standard</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Smoothing / big bath</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chao and Hong (2013)</td>
<td>RQFA</td>
<td>2005-2007</td>
<td>1.113</td>
<td>Taiwan</td>
<td>SFAS No. 35</td>
<td>Managers use discretionary write-offs and abnormal accruals jointly to reach earnings targets.</td>
</tr>
<tr>
<td><strong>Debt contracting</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Management compensation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Reputation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AbuGhazaleh et al. (2011)</td>
<td>JIFMA</td>
<td>2005-2006</td>
<td>528</td>
<td>UK</td>
<td>IFRS</td>
<td>Goodwill impairment charges are more likely to be associated with recent CEO changes.</td>
</tr>
</tbody>
</table>

### Panel E

#### Results of Empirical Studies regarding Managerial Discretion and Cash Generating Units

<table>
<thead>
<tr>
<th>Study (by year)</th>
<th>Journal</th>
<th>Sample Period</th>
<th>Sample Size</th>
<th>Country</th>
<th>Accounting Standard</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lapointe-Antunes et al. (2008)</td>
<td>CJAS</td>
<td>2002</td>
<td>331</td>
<td>Canada</td>
<td>US-GAAP / Canadians GAAP</td>
<td>Evidence for a positive association between the number of reporting units and the probability of goodwill write-offs.</td>
</tr>
<tr>
<td>Gleum and Wyerse (2011)</td>
<td>-</td>
<td>2009</td>
<td>322</td>
<td>12 European countries</td>
<td>IFRS</td>
<td>Goodwill is concentrated in a small number of CGUs.</td>
</tr>
<tr>
<td>Ramanna and Watts (2012)</td>
<td>RAS</td>
<td>2003-2006</td>
<td>124</td>
<td>USA</td>
<td>US-GAAP</td>
<td>Evidence for a decrease of impairments with the number and size of reporting units.</td>
</tr>
<tr>
<td>Duff &amp; Phelps (2013)</td>
<td>-</td>
<td>2013</td>
<td>115</td>
<td>USA</td>
<td>US-GAAP</td>
<td>Two-thirds of public companies have five or less reporting units.</td>
</tr>
</tbody>
</table>

### Panel F

#### Results of Empirical Studies Regarding Disclosures

<table>
<thead>
<tr>
<th>Study (by year)</th>
<th>Journal</th>
<th>Sample Period</th>
<th>Sample Size</th>
<th>Country</th>
<th>Accounting Standard</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carlin and Finch (2010)</td>
<td>JAOE</td>
<td>2006-2007</td>
<td>100</td>
<td>Australia</td>
<td>IFRS</td>
<td>High level of non-compliance with goodwill accounting/disclosure requirements in the two years after adoption of IFRS.</td>
</tr>
<tr>
<td>European Securities and Markets Authority (2013)</td>
<td>-</td>
<td>2011</td>
<td>235</td>
<td>Europe</td>
<td>IFRS</td>
<td>The disclosures of IAS 36 are in many cases of a boilerplate nature and not entity-specific.</td>
</tr>
<tr>
<td>Gleum et al. (2013)</td>
<td>ABR</td>
<td>2005</td>
<td>357</td>
<td>European (17 countries)</td>
<td>IFRS</td>
<td>Substantial non-compliance with disclosure requirements of IAS 36.</td>
</tr>
</tbody>
</table>
References


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V.

COMPARABILITY OF REPORTED CASH FLOWS UNDER IFRS – EVIDENCE FROM GERMANY

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VI.

SHORT-TERM AND LONG-TERM EFFECTS OF IFRS ADOPTION ON DISCLOSURE QUALITY AND EARNINGS MANAGEMENT

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Short-term and long-term effects of IFRS adoption on disclosure quality and earnings management

SHORT-TERM AND LONG-TERM EFFECTS OF IFRS ADOPTION ON DISCLOSURE QUALITY AND EARNINGS MANAGEMENT

Abstract

This study investigates the effect of IFRS adoption on the transparency of financial reporting in Germany. For a sample period from 1995 to 2012, we analyze the development of the degree of earnings management and of disclosure quality using discretionary accruals and disclosure quality scores from an annual report ‘beauty contest’ published by a German business journal as proxies. We find that IFRS adoption is associated with an increase in disclosure quality and with an initial increase in the extent of earnings management. We argue that the latter is driven by factors such as low compliance, lack of experience and weaker enforcement in the early years of IFRS accounting and show that the degree of earnings management decreases from the ‘early’ to the ‘mature’ phase of IFRS accounting. Finally, we provide evidence for a negative association between disclosure quality and earnings management indicating that disclosures potentially constrain earnings management.

Keywords: IFRS Adoption, Earnings Management, Earnings Quality, Disclosure Quality
1 Introduction

Since 2005, European listed companies are required to prepare their consolidated financial statements according to International Financial Reporting Standards (IFRS)\(^1\). This is the result of the so-called “IAS-Regulation” (Regulation (EC) No. 1606/2002) which formulates two objectives directly related to financial reporting: (higher) comparability and transparency of financial statements. Although IFRS have been adopted in the European Union (EU) for some time, academics have failed to deliver compelling, unambiguous evidence for the effects of IFRS adoption on financial reporting quality, to date.\(^2\)

In this paper, we focus on the effects of IFRS adoption on the transparency of financial reporting which, in our perception, have mostly been evaluated by measures of the properties of earnings (“earnings transparency”).\(^3\) A large part of this research examines the effects on the extent of earnings management accompanying the regulatory change. However, evidence for a decrease of the degree of earnings management, and thus an increase in financial reporting transparency,\(^4\) is not yet conclusive. In particular, studies using discretionary accruals as a proxy for earnings management often do not support the general assumption that the adoption of IFRS leads to higher transparency (Ahmed et al., 2013). Instead, they often find an increase or no significant change rather than a decrease in the extent

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\(^1\) In the following, we use the abbreviation IFRS when referring to the accounting standards issued by the International Accounting Standards Board (IASB) or its predecessor, the International Accounting Standards Committee (IASC). Standards issued by the IASC are called International Accounting Standards (IAS).

\(^2\) See the findings of Soderstrom and Sun (2007) and Brüggemann et al. (2013) who review the literature related to voluntary and mandatory adoption of IFRS, respectively.

\(^3\) Similarly, Brüggemann et al. (2013) observe that IFRS adoption studies mostly use ‘earnings quality’ metrics.

\(^4\) Being aware that earnings management can also be used to signal private information, we interpret earnings management opportunistically which is in line with the majority of earnings management studies regarding IFRS adoption. For example, Barth et al. (2008) predict companies with earnings of higher quality to exhibit less earnings management and point out that this prediction is consistent with prior literature.
of discretionary accruals studying the very first years after IFRS adoption (e.g. van Tendeloo and Vanstraelen, 2005; Callao and Jarne, 2010).

Undoubtedly, users of financial reporting are interested beyond such aggregate measures of earnings quality (Brüggemann et al., 2013). Moreover, studies analyzing the effects on specific properties of accounting measures do not account for potential changes regarding the information content of annual reports published by firms applying IFRS (Daske and Gebhardt, 2006). Therefore, researchers have examined the effects of IFRS adoption on the quantity and the quality of disclosures that typically accompany the primary financial statements (hereafter: disclosure quality), a different dimension of transparency. Contrary to the results regarding earnings management, research examining disclosure quality provides unanimous support for an increase in transparency in the course of the switch to international accounting standards (Leuz and Verrecchia, 2000; Daske and Gebhardt, 2006; Glaum et al., 2013). Since prior research indicates that disclosure quality and earnings management are negatively related (e.g. Lobo and Zhou, 2001; Shalev, 2009) and that disclosures facilitate the detection of earnings management (Hunton et al., 2006; Jo and Kim, 2007), enhanced disclosures under IFRS have been brought forward as one argument to expect a decrease in earnings management after the switch to IFRS (see Doukakis, 2014). This argument and the different effects of IFRS adoption on earnings management and disclosure quality documented in the literature make the association between these dimensions of transparency around the regulatory change a matter of great interest that has not been addressed by prior literature.

In our paper, we examine the effects of IFRS adoption on earnings management as well as disclosure quality. We focus on Germany which allows using a specific
proxy for disclosure quality, namely the disclosure scores of the “Best Annual Report” ‘beauty contest’ of the German business journal manager magazin, which are publicly available from 1995 to 2012. Since prior research had to study some few years around the adoption of IFRS and the need to study longer time horizons has been explicitly emphasized (e.g. Callao and Jarne, 2010), we are particularly interested in the development of transparency from the first few years, the ‘early’ phase of IFRS accounting, to the ‘mature’ phase. Moreover, we examine the nature of the relationship between disclosure quality and the degree of earnings management.

Consistent with prior research, we find an increase in disclosure quality accompanying the transition from German GAAP to IFRS. Contrary, we find a significantly higher level of earnings management under IFRS compared to German GAAP. However, this seems to be driven by observations from the first few years of IFRS reporting, since our results indicate a significant decrease in the extent of earnings management from the ‘early’ phase of IFRS accounting to the ‘mature’ phase. Comparing the degree of earnings management under German GAAP to ‘mature’ IFRS observations, we do not find a significant difference indicating that the extent of earnings management does not increase under IFRS compared to German GAAP in the longer run. We interpret this as an improvement in transparency over time attributable to learning effects of preparers, users, and auditors, developing enforcement, diminishing effects resulting from the application of IFRS.

There are three more reasons for our focus on Germany. First, the large differences between German GAAP and IFRS as well as relatively high compliance levels likely result in more powerful tests on the effects of IFRS adoption (Bartov et al., 2005; Soderstrom and Sun, 2007). Second, since German firms account for a substantial part of the firms worldwide that reported under IFRS in the 1990s (see Daske and Gebhardt (2006) for an analysis of the number of firms adopting IFRS between 1996 and 2004), the effects of the regulatory change can be studied particularly well in the German setting (see also Glaum et al., 2013). Third, our focus on a single country removes the need to put emphasis on country-specific factors that are not related to the financial reporting system but could potentially be confounding (Barth et al., 2008).
Short-term and long-term effects of IFRS adoption on disclosure quality and earnings management

(First-time Adoption of IFRS), and emerging common guidelines and interpretations fostering more consistent application of the new standards. Finally, we show that disclosures have the potential to constrain earnings management, especially when accounting standards require comparatively few disclosures and/or when common guidelines and interpretations are not yet developed and financial statements are influenced by low compliance, little experience or weak enforcement as in the ‘early’ phase of IFRS accounting.

Our findings contribute to the widespread debate on the effects of IFRS adoption highlighting the importance to study time horizons beyond the few years around the regulatory change. Considering the dimension of the introduction of IFRS in the EU, regulators, standard setters and other financial reporting stakeholders should clearly be interested in the long-term effects rather than focused on short-term outcomes. Thus, our results may mitigate concerns raised by prior ‘short horizon’ studies documenting increasing earnings management behavior under IFRS (e.g. Callao and Jarne, 2010). Our results regarding the negative association between disclosures and earnings management are of potential interest to both standard setters and analysts. The former should feel encouraged to demand high quality disclosures, especially with regard to management’s estimates and assumptions, while the latter should be aware of the use of discretionary accounting in the absence of disclosures.

The remainder of this paper is organized as follows. Section 2 describes the institutional background by presenting the German accounting environment and its development towards IFRS. Section 3 reviews related literature and develops our hypotheses. Section 4 describes our research design, our data, and the measure-
ment of disclosure quality and earnings management. Section 5 presents our results next to robustness checks. Section 6 concludes.

2 Institutional Background: Development of the German Accounting Environment

For our study, we focus on Germany, a continental European country that has been characterized as a code-law country having had relatively weak investor protection rights (La Porta et al., 2000). Overviews of the German accounting system have been provided by several authors (e.g. Harris et al., 1994; van Tendeloo and Vanstraelen, 2005; Ferrari et al., 2012) which is why we limit our remarks to the fundamental characteristics and developments towards mandatory IFRS adoption. Traditionally, German accounting according to the German Commercial Code (“Handelsgesetzbuch”, HGB) mostly aims at protecting the interests of firms’ creditors and is heavily influenced by tax regulations (van Tendeloo and Vanstraelen, 2005; Glaum et al., 2013). While the dominant valuation principle is prudence (Harris et al., 1994; Ferrari et al., 2012), German GAAP has been characterized as providing a multitude of options with regard to inclusion and valuation of balance sheet items and opportunities to manage earnings (van Tendeloo and Vanstraelen, 2005).

In the 1990s, the accounting rules of the German system were criticized by Anglo-American investors and the financial press. Leuz and Verrecchia (2000) outline the main arguments as follows: German GAAP allows too much discretion, especially with regard to the management of income through the use of large hidden reserves; German GAAP financial statements are subject to tax optimization incentives to a large extent; and German GAAP has deficits regarding disclosure...

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See Leuz and Verrecchia (2000) who also provide some examples.
requirements that are not sufficient to meet the demands of investors and analysts.

Over the years, the financing as well as the ownership structure of German firms have changed since companies have been relying more and more on public equity markets. In the course of this development, the importance of (potential) investors as users of financial statements has risen (van Tendeloo and Vanstraelen, 2005).

In response to the complaints about German GAAP and the increasing importance of capital markets, many German firms adjusted their financial reporting and disclosure strategies and published additional information according to US GAAP or IFRS (Leuz and Verrecchia, 2000). Nevertheless, German groups had to provide consolidated financial statements according to local GAAP until April 1998. At that time, the German Parliament and Federal Council decided to allow listed firms to issue consolidated financial statements that comply with either German GAAP or international accounting standards (either IFRS or US GAAP) by enacting the “Law to Facilitate the Raising of Capital” (“Kapitalaufnahmeerleichterungsgesetz”, KapAEG). The next important milestone in the development of the German financial reporting environment was the enactment of the so-called “IAS Regulation” in 2002 (Regulation (EC) No. 1606/2002). For fiscal years starting on or after 1 January 2005, the regulation requires European firms to prepare their consolidated financial statements in accordance with IFRS, if their securities are admitted to trading on a regulated market within the EU.

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7 Leuz and Verrecchia (2000) identify three different strategies to report (almost) in compliance with IFRS or US GAAP: 1. Preparation of financial statements as close as possible to international standards while still complying with German GAAP; 2. Reconciliation of income and shareholder’s equity with international accounting standards while providing additional disclosures required by international standards in the notes; 3. Provision of an additional separate set of financial statements in accordance with international standards.


9 See Regulation (EC) No. 1606/2002, Article 4. Firms that were preparing their statements in accordance with US GAAP were allowed to apply IFRS at latest for fiscal year 2007 (see Regulation (EC) No. 1606/2002, Article 9(b)).
In the meantime, the German stock exchange Deutsche Börse AG had introduced the requirement of international financial reporting for selected segments, such as the New Market (Neuer Markt) which required listed firms to publish financial statements in accordance with internationally recognized standards already in 1997. Similarly, companies seeking to comply with the listing requirements of the prime standard segment which was introduced in 2003 had to adopt international accounting standards prior to 2005, if they had not been listed before 1 January 2003.10 Alongside the adoption of IFRS in the EU, the member states also introduced the requirement to establish, on a national basis, mechanisms to ensure the appropriate and consistent application of the international accounting rules. In Germany, the DPR (“Deutsche Prüfstelle für Rechnungslegung” – German Financial Reporting Enforcement Panel, FREP) was established in 2004 and started assessing financial statements with respect to compliance with the relevant accounting rules in 2005. Once a material error is detected, this finding has to be disclosed by the firm to the public, which may lead to negative capital market effects for the firm.11

In contrast to traditional German GAAP, IFRS aim at providing information that is useful to investors and creditors in deciding about the provision of financial resources to the reporting firm.12 Consequently, IFRS differ substantially from German GAAP. Importantly, international accounting standards are said to require a greater amount of disclosures (Leuz and Verrecchia, 2000; Ashbaugh, 2001) and provide fewer accounting choices than German GAAP (d’Arcy, 2000). These fea-

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10 See Daske and Gebhardt (2006) for a description of the transition process towards IFRS including the role of listing requirements for Germany, Austria and Switzerland.
11 For a good overview of the enforcement of IFRS in the EU in general and, in particular, the specific German two-tier enforcement system consisting of a private body (the DPR) and the securities regulator (the federal agency BaFin) see Hitz et al. (2012).
tasures potentially constrain earnings management and therefore might lead to the intended increase in transparency of financial reporting. In this paper, we analyze the effects of IFRS adoption on disclosure quality and earnings management separately and assess the relationship between these dimensions of transparency to further understand the consequences of the regulatory change.

3 Prior Research and Hypotheses

3.1 IFRS Adoption and Transparency

The requirement for European listed firms to prepare their consolidated financial statements in accordance with IFRS is the result of the so-called “IAS Regulation” in 2002. The stated objectives of the Regulation are ‘...the adoption and use of international accounting standards in the Community [...] in order to ensure a high degree of transparency and comparability of financial statements and hence an efficient functioning of the Community capital market and of the Internal Market’ (Regulation (EC) No. 1606/2002, Article 1). Thus, with regard to financial reporting, two objectives can be identified, transparency and comparability, which should enhance the functioning of capital markets and, finally, foster macroeconomic developments (Brüggemann et al., 2013). Assuming this causal chain, research provides broad evidence for positive capital market and macroeconomic effects of IFRS adoption.¹³

¹³ Several studies investigate the effects of the adoption of international accounting standards on capital markets, such as changes in bid-ask spreads (Leuz and Verrecchia, 2000; Muller et al., 2011), stock market liquidity (Daske et al., 2008), cost of capital (Daske, 2006) or the accuracy of analysts’ forecasts (Glaum et al., 2013). Others have focused on macroeconomic effects, particularly on changes in foreign investment behavior (e.g. Beneish et al., 2015). Brüggemann et al. (2013) who review the literature on the economic consequences of mandatory IFRS adoption observe that ‘there is plenty and almost unanimous evidence of positive capital market and macroeconomic effects’ (p. 29).
Besides those indirect measures of financial reporting quality, research has also examined the impact of international accounting standards on financial reporting quality directly. Consistent with the notion that there is no consensus on the characteristics of high quality financial reporting (see e.g. Daske and Gebhardt 2006; Glaum et al., 2013) studies have focused on different dimensions of comparability and transparency. First, the compliance of firms’ financial statements with IFRS has been questioned. Street and Gray (2002) provide evidence for substantial compliance problems in IFRS financial reports for the year 1998. Verriest et al. (2013) and Glaum et al. (2013b) also find a considerable degree of non-compliance with regard to IFRS disclosures in the first year of IFRS application. Second, studies have investigated the effects of IFRS adoption on the comparability of financial statements documenting substantial differences across countries with regard to accounting policy choices (e.g. Kvaal and Nobes, 2010 and 2012; Haller and Wehrfritz, 2013).

Third, the quality of financial statements, especially regarding transparency, has been evaluated by measures of the properties of earnings but, to date, results have been inconclusive. For example, some researchers have addressed the value relevance of IFRS financial statements in capital markets (e.g. Bartov et al., 2005; Hung and Subramanyam, 2007; Jermakowicz et al., 2007; Aharony et al., 2010; Ahmed et al., 2013). A common approach to evaluate the quality of earnings is to measure the degree of earnings management whereby earnings management refers to corporate decision makers affecting the outcomes of financial reporting

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14 With regard to Germany, results are mixed. Bartov et al. (2005) provide evidence for earnings computed according to US GAAP or IFRS being of higher value relevance than German GAAP earnings. For a DAX-30 sample of firms, Jermakowicz et al. (2007) also find support for higher value relevance as a result of the voluntary adoption of IFRS. However, Hung and Subramanyam (2007) find no evidence for an increase in value relevance from local GAAP numbers to those that are presented by German first-time adopters of international accounting standards. For a comprehensive overview of value relevance studies examining the effects of IFRS adoption see Ahmed et al. (2013) highlighting the mixed evidence delivered.
by either structuring real transactions or using discretion over recognition or disclosure when preparing financial statements (see e.g. Healy and Wahlen, 1999; Roychowdhury, 2006; Ronen and Yaari, 2008). They may do so in order to achieve certain contractual outcomes that are dependent on accounting figures or to mislead users of financial reporting about the real performance of the company (Healy and Wahlen, 1999). Besides such opportunistic reasons, discretionary accounting choices can also be used as a means of signaling private information to outside investors or other external parties (Watts and Zimmermann, 1986; Healy and Wahlen, 1999). However, in most cases, higher quality earnings are assumed to exhibit less earnings management.\footnote{See footnote 4 again.}

Prior research reveals inconsistent results. For example, the results of Barth et al. (2008) generally indicate less earnings management in terms of earnings smoothing and earnings management towards positive earnings ("loss avoidance") for firms that adopted international accounting standards compared to (matched) non-adopters applying domestic GAAP in 21 countries. Contrarily, Jeanjean and Stolowy (2008) who examine the impact of the mandatory adoption of IFRS in Australia, France, and the UK conclude that the pervasiveness of earnings management behavior has not been reduced by the introduction of the new standards. The most widespread approach to measuring the degree of earnings management is to determine discretionary accruals. Ahmed et al. (2013) provide a comprehensive overview of research on the association between IFRS adoption and discretionary accruals highlighting the inconsistency of prior findings. On the basis of a meta-analysis, they further conclude that the regulatory change towards IFRS did not lead to a decrease in discretionary accruals.
For the German accounting environment, van Tendeloo and Vanstraelen (2005) provide evidence for a significant increase in earnings management measured by discretionary accruals following the voluntary adoption of international accounting standards for a sample period from 1999 to 2001. However, the authors find no significant differences between voluntary adopters of international standards and firms reporting under German GAAP after including hidden reserves into their analyses. Nevertheless, van Tendeloo and Vanstraelen (2005) conclude that the application of international accounting standards cannot be associated with a decrease in earnings management. These results are complemented by Callao and Jarne (2010) who examine the effects of mandatory IFRS adoption in 11 European countries. Covering a period of two years before and two years after the regulatory change in 2005, the authors find an increase in earnings management as discretionary accruals increased immediately after the IFRS adoption in Europe. Meanwhile, the results for Germany reveal significant changes only with regard to long-term discretionary accruals, while there are no significant differences regarding total and current accruals.

As one potential explanation for such inconsistent results regarding the financial reporting effects of the adoption of IFRS, Brüggemann et al. (2013) suggest that the (earnings quality) metrics applied are not capturing what is relevant to users of financial reporting. In a similar vein, Daske and Gebhardt (2006) point out that studies examining the effects of IFRS adoption on specific properties of accounting measures, such as earnings, ‘by their design do not analyze the potential differences and changes in the information provided in the actual annual reports of firms adopting IFRS’ (p. 462). Obviously, the primary contents of financial statements, income statement and balance sheet, are not the only means by which
firms communicate to external stakeholders. Accordingly, some researchers have examined the effects of the introduction of international accounting standards on disclosure quality, a different dimension of transparency.

Leuz and Verrecchia (2000) examine the quality of disclosures for German DAX 100 firms by comparing ratings of an annual report ‘beauty contest’ published in the business journal Capital. For the fiscal years ending between July 1997 and June 1998, they find significantly higher mean and median ratings for firms that have adopted international reporting strategies\(^\text{16}\) compared to firms that report solely according to German GAAP. Daske and Gebhardt (2006) analyze the effects of the adoption of internationally recognized financial reporting standards, IFRS and US GAAP, on the quality of annual reports for firms from Austria, Switzerland, and Germany. Using disclosure quality scores based on ratings of yearly “Best Annual Report” ‘beauty contests’ published in business magazines between 1996 and 2004,\(^\text{17}\) they find a significant increase of disclosure quality in the course of the adoption of international standards, particularly IFRS. Importantly, their results also hold in multivariate analyses controlling for individual reporting incentives.\(^\text{18}\)

For a sample of German listed firms from 1997 to 2005, Glaum et al. (2013) examine changes in the accuracy of analysts’ earnings forecasts due to the introduction of international accounting standards and whether such changes can be attributed to increased disclosure. Measuring disclosure quality with scores obtained from a yearly “Best Annual Report” ‘beauty contest’ organized by the

\(^{16}\) See footnote 7 for a description of these strategies.

\(^{17}\) The ‘Best Annual Report’ ‘beauty contests’ are published by the business magazines Capital and Focus Money in Germany (1996-2003), Bilanz in Switzerland (2001-2004), and Trend in Austria (1997-2004).

German business journal *manager magazin*, they find that the quality of disclosures in the notes to the financial statements as well as in management reports is significantly higher for firms reporting under IFRS or US GAAP compared to firms reporting under German GAAP. Overall, Glaum et al. (2013) conclude that the introduction of international standards improved disclosure quality and the accuracy of analysts’ forecasts, whereby the latter effect can, to some extent, be attributed to the former.

The overview of prior research shows that results concerning the effect of the adoption of IFRS on the quality of financial reporting are not unambiguous. Regarding transparency, on the one hand, studies provide clear evidence for an increase in disclosure quality under IFRS. This is in line with the notion that international accounting standards require more disclosures than German GAAP (Leuz and Verrecchia, 2000; Ashbaugh, 2001). On the other hand, research on the effects of IFRS adoption on earnings management is not unambiguous which reflects ambiguous theoretical reasoning. While some advocate that international standards limit accounting choices compared to German GAAP (d’Arcy, 2000) and, thus, might reduce the scope for earnings management (Barth et al., 2008), it has been acknowledged that there is a range of explicit and implicit options and vague criteria under IFRS, too (Nobes, 2006 and 2013), that offer opportunities to manage earnings (Callao and Jarne, 2010). Furthermore, the application of any set

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19 These scores also form the basis for our analyses. For a description of the “Best Annual Report” “beauty contest” published by *manager magazin* see section 4.2. Please note that Glaum et al. (2013) have access to more detailed scores which is beyond what has been published in the business journal. This enables them to differentiate between the disclosure quality of notes and that of management reports.

20 See Doukakis (2014) who describes various arguments regarding the effect of mandatory IFRS adoption on earnings management and does neither hypothesize nor find effects of the regulatory change on accrual-based and real earnings management for observations from 22 European countries between 2000 and 2010.
of accounting standards requires substantial judgment, estimates, and the use of private information (Jeanjean and Stolowy, 2008).

Following the assumption that IFRS are of higher quality than local GAAP within the EU on which the introduction of IFRS is based, the inconclusive research findings affirm the notion that high quality standards are not necessarily sufficient for providing high quality financial information (Ball et al., 2003). For example, Christensen et al. (2013) show that positive capital market effects of IFRS adoption only materialized in countries that experienced concurrent changes in their accounting enforcement mechanisms. In fact, the accounting numbers observed are the result of the financial reporting system as a whole, including standards, their interpretation as well as enforcement and litigation (Barth et al., 2008). Thus, besides the use of a variety of metrics, different time periods, data sources, and diverse research designs (Barth et al., 2008), institutional factors such as varying degrees of investor protection or enforcement of accounting standards and the essential role of incentives for accounting decisions (see e.g. Ball et al., 2003) may have contributed to the inconclusiveness of prior research.

Against this background, it is important to note that prior research inevitably had to study rather short-time horizons after the adoption of IFRS. This may have contributed to understating positive effects on the transparency of financial reporting for several reasons. First, the initial years of IFRS application are likely to be influenced more heavily by the first-time adoption rules of the relevant standard IFRS 1 which includes several exceptions from retrospective application of IFRS. This can be seen as a ‘structural break in the time series of firms’ accounting numbers that will take several years to wash out’ (Brüggemann et al., 2013, p. 30). Second, the younger a standard-setting regime is, the more principle-based
it likely is, since common guidelines and interpretations are developed over time (Nelson, 2003; Callao and Jarne, 2010). Assuming shared guidelines and interpretations to enhance consistent application and to reduce the scope for discretionary accounting decisions,\footnote{The effect of common guidelines and interpretations on earnings management is not unambiguous. While the scope for accounting choices is probably reduced as standards become more rules-based, incentives for real activities management might increase concurrently.} comparing GAAP that have been applied for decades to a recently adopted reporting regime leaves the latter with a ‘disadvantage’.

Third, substantial non-compliance with the effective IFRS (Street and Gray, 2002; Verriest et al., 2013; Glaum et al., 2013b), especially in the early phase of IFRS accounting, could also adversely affect the quality of summary measures of the accounting process, such as earnings. We expect IFRS compliance to improve over time assuming that the more experienced accountants, auditors and users are, the better the quality of IFRS financial statements is. Fourth, Germany’s enforcement institution, the German FREP, started to examine financial statements in 2005. In addition to this important change, we also expect enforcement to undergo a learning curve as well as increasing awareness among preparers and auditors about the consequences of non-compliance.\footnote{While negative capital market effects resulting from SEC error announcements are well documented (e.g. Dechow et al., 1996), Hitz et al. (2012) find first evidence for negative effects in terms of abnormal returns, abnormal trading volumes and abnormal bid-ask spreads of FREP error announcements in Germany as well.} Since accounting enforcement is key to financial reporting quality (e.g. Hope, 2003; Christensen et al., 2013), we expect a decrease in earnings management as a result of these effects.

Being interested in the effects of IFRS adoption on transparency in Germany, we assess the effects on both, the quality of corporate disclosures as well as on the degree of earnings management. While the literature does not provide unanimous support for the superiority of IFRS, we consider that the IASB intends IFRS to be ‘\textit{high quality, understandable, enforceable and globally accepted financial re-}'
Short-term and long-term effects of IFRS adoption on disclosure quality and earnings management

porting standards ... [which] should require high quality, transparent and comparable information in financial statements and other financial reporting’ (Preface to IFRSs, par. 6(a)). Thus, the objectives of the IASB correspond to the objectives regarding transparency and comparability formulated by the “IAS Regulation”. Accordingly, we expect an increase of transparency in the course of the adoption of IFRS, i.e. an increase of disclosure quality and a decrease of the degree of earnings management. Additionally, we follow our argumentation above and expect transparency under IFRS to increase over time as preparers, users, auditors and enforcers become more experienced and proficient in the application of IFRS, compliance improves, the effects of the first-time adoption rules diminish, and common guidelines and interpretations of the standards emerge. Hence, we formulate our first hypotheses as follows:

**H1:** Transparency of financial reporting is higher under IFRS than under German GAAP.

**H2:** Transparency of financial reporting under IFRS increases over time.

3.2 Association between Disclosures and Earnings Management

Next to the effects of IFRS adoption on earnings management and disclosure quality, we are interested in the relation between these two dimensions of transparency. One motivation of the IASB to require financial statements to comprise disclosures is to ensure that financial reporting faithfully represents what it purports to represent, e.g. by enhancing the reliability of management’s estimates and assumptions (see e.g. IAS 1.BC81; IAS 36.BC199-.BC209). In support of this
motivation, anecdotal evidence suggests that insufficient disclosures create opportunities to manage earnings through the use of biased estimates and assumptions.\textsuperscript{23}

Theoretically, both corporate disclosures as well as earnings management are associated with information asymmetry. Intuitively, the disclosure of private information reduces information asymmetries between insiders, i.e. managers of the firm, and outsiders of the firm, particularly investors (Diamond and Verrecchia, 1991; Kim and Verrecchia, 1994). Empirical research provides support for a relation between disclosure and information asymmetry between investors and managers as well as for the economic benefits resulting from the reduction of information asymmetry (e.g. Lang and Lundholm, 1993 and 1996; Botosan, 1997).

Theoretical arguments also suggest a relation between information asymmetry and earnings management. In particular, analytical models assume information asymmetry between managers and investors to be a precondition for earnings management (Trueman and Titman, 1988; Dye, 1988). Richardson (2000) provides empirical support for this notion and finds a positive association between the level of information asymmetry and earnings management. The author concludes that the higher the level of information asymmetry, the higher the degree of earnings management, suggesting that ‘information known about the firm and its earnings may limit the extent of earnings management performed by firm managers’ (p. 344).

\textsuperscript{23} See, for example, the following extracts from responses in relation to the impairment-only approach for goodwill accounting to the IASB’s request for information during the Post-implementation Review on IFRS 3 “Business Combinations” in 2014. The European Securities and Markets Authority states (ESMA, 2014, p. 6): ‘ESMA identified shortcomings related to the description of the management approach to determining the value(s) assigned to each assumption, whether those value(s) reflect past experience or, if appropriate, are consistent with external sources of information as required by paragraph 134(d)(ii) of IAS 36. The high level of subjectivity in determining many assumptions and estimates combined with disclosures requirements that prove difficult to be enforced creates an incentive for earnings management.’ Similarly, the SIX Exchange Regulation recommends to require additional disclosures (e.g. ‘Disclosure of the terminal value in percent of the total recoverable amount’) in its comment letter to the same IASB request and states (SIX Exchange Regulation, 2014, p. 4): ‘We believe that the disclosure of this information would not only be useful for investors, but might also mitigate the use of unrealistically optimistic assumptions.’
Drawing upon these relations, research also examined the link between disclosure quality and earnings management or, more generally, earnings quality. Lobo and Zhou (2001) infer from the above that ‘firms that disclose more information have less flexibility to manage earnings’ (p. 4) and, accordingly, disclosure quality is negatively related to the degree of earnings management. However, Francis et al. (2008) as well as Mouselli et al. (2012) point out that prior literature provides conflicting theoretical arguments regarding the nature of the relationship between disclosure quality and earnings quality. On the one hand, one could argue that firms with low earnings quality (high information asymmetry) have incentives to provide higher quality disclosures in order to reduce information asymmetry. On the other hand, one could view earnings quality and disclosure quality as complements and expect management’s incentives to disclose additional information to decrease with lower earnings quality, because external parties have stronger concerns regarding the credibility of such disclosures, and vice versa.24

Similar to this controversy about the nature of the relationship, theory predicting a negative (positive) relation between disclosures and earnings management (earnings quality) is not conclusive about the direction of causality.25 As argued by Francis et al. (2008) and Blanco et al. (2014), causality might flow from earnings quality to disclosure quality, because firms that provide higher quality information via their earnings signal also have stronger incentives to provide additional information that would further reduce information asymmetry and yield related benefits (e.g. lower cost of capital). Additionally, improvements in the information environment (i.e. higher earnings quality) strengthen the incentives to provide

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24 See Francis et al. (2008) and Mouselli et al. (2012) for this discussion. Since Mouselli et al. (2012) use classical earnings management proxies and refer explicitly to earnings management when interpreting their results, presumably the opposing theoretical views can be transferred to the relationship between disclosure quality and earnings management, in particular.

25 See Blanco et al. (2014) for the following discussion.
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high quality disclosures, because non-disclosure would more likely be interpreted as bad news.

Contrarily, experimental research indicates that users are more likely to see through earnings management practices when financial information is presented in a more transparent manner (e.g. Hirst and Hopkins, 1998) and that incentives to conduct earnings management are reduced as the likelihood of a detection increases (Hunton et al., 2006). This is in line with the standard setter’s rationale that enhanced disclosure requirements limit management’s discretion over assumptions and estimates thereby reducing the scope for earnings management. Shalev (2009) provides evidence for a negative association between the quality of business combinations disclosures and the degree of earnings management and adds a related perspective on causation arguing that ‘lower disclosure level increases managers’ flexibility to manage earnings in the future’ (p. 245).

Empirical evidence regarding the interaction between disclosures and earnings management is scarce, in particular for Continental European countries and the IFRS reporting regime. Francis et al. (2008) examine the relation between earnings quality and voluntary disclosure for a sample of 677 US firms in 2001. They find a significant relation that is complementary in nature, i.e. the higher the quality of earnings the more voluntary disclosures are provided by the firm. For a US sample between 2001 and 2006, Blanco et al. (2014) examine the relation between the quantity of segment disclosures and earnings quality. Documenting a significant positive association between current levels of the two constructs, they further examine the association between current (past) segment disclosure and past (current) levels of earnings quality. Since only current segment disclosure is related to past earnings quality levels, Blanco et al. (2014) argue that earnings quality is
more likely to be a determinant of segment disclosure than vice versa. However, Jo and Kim (2007) provide evidence for a negative association between the frequency of disclosure and earnings management for SEO firms in the US and argue for the opposite direction of causality, i.e. increased disclosure lowers information asymmetry and facilitates the detection of earnings management which, accordingly, reduces incentives for earnings management.

Mouselli et al. (2012) examine the relationship between disclosure quality, defined as the number of future-oriented earnings statements in the narrative sections of annual reports, and the absolute value of discretionary accruals. For a UK sample and a period from 1997 to 2004, the authors find a negative association and conclude ‘that firms with higher disclosure quality engage less in discretionary accruals’ (p. 37). A second study with a focus on UK firms has been conducted by Iatridis (2011) for the years from 2005 to 2009. Using a checklist to measure the quality of annual reports, the author provides initial evidence for a negative association between disclosure quality and the degree of earnings management under IFRS. These results are consistent with earlier findings of Lobo and Zhou (2001) who show that disclosure quality and earnings management are negatively related for a sample of firms with disclosure ratings of the Association for Investment Management and Research (AIMR) during the period from 1990 to 1995. Taken together, these findings suggest that firms that provide high (low) quality disclosures exhibit less (more) earnings management, i.e. the greater the amount and the higher the quality of disclosures, the smaller the room for (opportunistic) earnings management. In contrast, Shaw (2003) finds that ‘higher disclosure quality is not always synonymous with less earnings management’ (p. 1050) when examining the association between financial analysts’ ratings of disclosure
quality and discretionary accruals for an earlier period from 1985 to 1989. In particular, the author concludes that firms that provide higher quality disclosures engage more aggressively in earnings smoothing than firms that provide lower quality disclosures.

Building on extant literature, we expect disclosure quality and earnings management to be related. In particular, since disclosures potentially facilitate the detection of earnings management by reducing information asymmetry, which has been described as a precondition to conduct earnings management, we expect a negative relation between these dimensions of transparency. Anecdotal evidence as well as the standard setter’s rationale for requiring disclosures further support the assumption that the greater the amount and the better the quality of firms’ disclosures are, the tighter the constraint which they put on (opportunistic) earnings management behavior. This line of argumentation regarding the relationship is intuitive, especially from an intertemporal perspective as argued by Shalev (2009). Being aware of alternative views as presented above, we therefore formulate our hypothesis on the association of disclosure quality and earnings management (H3) as follows:

\[ H3: \text{Higher quality disclosures have a constraining effect on earnings management.} \]

4 Research Design

4.1 Measurement of Earnings Management

Following prior literature, we principally rely on the Jones (1991) model to obtain a proxy for the degree of earnings management. However, we use the performance adjusted modified Jones model as in Kothari et al. (2005) and estimate the
accrual process as a function of sales growth (adjusted for growth in credit sales), property, plant and equipment (PPE) and return on assets (ROA). Beginning of period total assets ($A$) serve as denominator in this equation:

$$\frac{TA_{it}}{A_{it-1}} = \alpha_0 + \beta_1 \frac{1}{A_{it-1}} + \beta_2 \frac{\Delta Sales_{it} - \Delta Receivables_{it}}{A_{it-1}} + \beta_3 \frac{PPE_{it}}{A_{it-1}} + \beta_4 ROA_{it-1} + \epsilon_{it}$$

In this model, $TA_{it}$ is total accruals and is calculated as follows:\textsuperscript{26}

$$TA_{it} = (\Delta Current assets_{it} - \Delta Cash_{it})$$

$$- (\Delta Current liabilities_{it} - \Delta Current portion of long term debt_{it})$$

$$- \Delta Income tax payable_{it}$$

$$- Depreciation and amortization expense_{it}$$

We separately estimate this model for each industry in our sample.\textsuperscript{27} The residuals of this model serve as firm-year specific estimators for the degree of earnings management. As earnings management might be income-increasing or income-decreasing, we analyze the absolute value of discretionary accruals. As robustness checks, we use the standard Jones (1991) model and the modified Jones model of Dechow et al. (1995) as well as the PM/ATO diagnostic of Jansen et al. (2012), an alternative earnings management measure that does not depend on estimates of accruals.

4.2 Measurement of Disclosure Quality

A variety of proxies have been used in prior research to assess the quality of disclosures including self-constructed disclosure indices, external disclosure ratings

\textsuperscript{26} Rephrased in Worldscope items total accruals is calculated as $[\Delta WC02201-\Delta WC02003]-[\Delta WC03051-\Delta WC18232-\Delta WC04828]-WC01151$.

\textsuperscript{27} The industry classification is based on SIC codes (Ernstberger et al., 2013, and Frankel et al., 2002).
or disclosure scores from annual report ‘beauty contest’. Examples of researcher-constructed indices include Botosan (1997) and Francis et al. (2008). This approach requires the researcher’s subjective assessment regarding the items to be included as well as their weighting. In addition to that, the coding is labor-intensive. For these reasons, self-constructed indices are typically hard to replicate and often result in small sample sizes. On the other hand, these indices can be applied to any firm which disposes of one limitation of proxies derived from external ratings which only include firms covered by the rating agency. Examples of studies using such external ratings include Healy et al. (1999) and Botosan and Plumlee (2002). One concern with these external ratings is that they reflect analysts’ perceptions of disclosure quality rather than the firms’ actual disclosure quality (Lang and Lundholm, 1996). However, analysts are among the primary users of financial reporting and should be familiar with the individual firm and its industry. Moreover, the most widely used external rating, the disclosure ratings published in the CFA institute (former: Association for Investment Management and Research (AIMR)) reports, is not available for all time periods. Further, the committee evaluating disclosure quality differs by industry and time.

In this study, we follow a third approach by using scores extracted from an annual report ‘beauty contest’, namely the “Best Annual Report” ("Bester Geschäftsbericht") ranking of the German business journal manager magazin. Similar rankings have also been used in prior research (e.g. Daske and Gebhardt, 2006; Hail, 2002; Glaum et al., 2013). Our measure provides a compromise solution to the trade-off between the advantages and disadvantages of researcher-constructed and externally provided scores. By using this measure we avoid some concerns with

28 See Artiach and Clarkson (2011) for a comprehensive discussion of the first two approaches.
29 See Artiach and Clarkson (2011), pp. 24-32, for a more detailed discussion.
regard to the self-constructed scores because we can neither influence the assess-
ment itself nor the weighting. As a matter of course, the score is still subject to 
judgment by the scholars who performed the ranking. As the “Best Annual Re-
port” ranking has been computed for a long time period and for a large number of 
firms, we have more than 1,500 firm-year observations in our sample which miti-
gates another concern with self-constructed disclosure indices. Furthermore, the 
time period from 1995 to 2012 is suitable for our research as it covers both Ger-
man GAAP requirement periods as well as a number of international GAAP re-
quirement periods.

The “Best Annual Report” ranking has recen tly been used in a study of Glaum et 
al. (2013).30 As they provide an extensive description of the ranking, we focus on 
the main characteristics. The ‘beauty contest’ is conducted annually and includes 
mainly firms from the exchange indices DAX, MDAX, SDAX, TecDAX and 
Nemax-5031 of the German stock exchange as well as European firms included in 
the STOXX index. In each year, annual reports including financial statements are 
evaluated with regard to different categories, such as ‘language’ and ‘design’ of 
the report and, most importantly, regarding the ‘content’ of disclosures. To cap-
ture the development of accounting and regulation, rankings need to change over 
time (Daske and Gebhardt, 2006). In some years, the aforementioned categories 
were complemented by the categories ‘financial communication’ and ‘reporting 
efficiency’ and an additional expert jury evaluation. Furthermore, the weighting of 
the individual categories changed over time. Therefore, we focus solely on the 
‘content’ score as our measure for disclosure quality.

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30 See Glaum et al. (2013), pp. 91-92.
31 The Nemax-50 index included firms from sunrise industries such as IT, biotechnology and 
telecommunications. This index has been closed in 2003 as a result of the dot-com bubble.
The ‘content’ category has been part of the ranking throughout the whole sample period from 1995 to 2012. For this score, each annual report is assessed by analysts of the University of Münster using a checklist of more than 300 items. The checklist covers the notes to financial statements, the management report as well as other disclosures that are provided additionally within the annual reports. The items reviewed are weighted based on surveys of financial experts (Armeloh, 1998), resulting in a total disclosure score between 0 and 100.

With regard to the notes to financial statements which contain information about accounting policies, individual balance sheet items as well as income and expense positions and additional supplementing information regarding the firm’s financial situation and performance, the evaluation considers whether and how detailed the information has been disclosed. Similarly, the management report which provides more future-oriented information, such as information about the firm’s risks and opportunities, is evaluated by assessing whether and in which form (e.g. general verbal or quantitative information) the information is reported (Glaum et al., 2013). Thus, the checklist covers both the quantity and the quality of disclosures which is why the ‘content’ score of the “Best Annual Report” contest is a good approximation for disclosure quality as a measure of transparency.

4.3 Research Approach

Univariate analyses

To test our hypotheses, we start by conducting several t-tests and Mann-Whitney-Wilcoxon-tests for the differences in means and medians. First, we test the differ-

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32 The overall ‘content’ score of the annual report contest which forms our proxy for disclosure quality is derived from the weighted scores for the notes to financial statements (44.88%), management report (43.12%) and other disclosures (12.00%). For detailed information about the “Best Annual Report” contest and the ‘content’ score see Baetge et al. (2012), pp. 63-68 and Oberdörster (2009), pp. 88-100.
ences in means and medians of discretionary accruals and disclosure quality scores across the two reporting regimes. In line with our first hypothesis, we expect an increase of transparency in the course of the adoption of IFRS, i.e. an increase of disclosure quality and a decrease of the degree of earnings management.

In a second step, we analyze the differences across the early and mature phase of the individual firms’ IFRS accounting. For these analyses, we define ‘early’ as the first four years of the individual firms’ IFRS accounting, irrespective of whether the adoption was voluntary or not. We choose this cut-off point to obtain a balanced sample size and period length across the two groups. The results are robust to other reasonable specifications of the phases, e.g. definition of the first three or the first five years of the individual firms’ IFRS application as ‘early’.

**Multivariate analyses – earnings management**

The univariate approach does not account for the effects of different firm characteristics and incentives or for changes over time on our metrics of transparency. Therefore, we also conduct different sets of regression analyses. The first set is intended to test the effect of IFRS adoption on discretionary accruals, whilst the second set is intended to test the effect of IFRS adoption on disclosure quality. By combining both models, we aim to test the constraining effect of disclosures on earnings management. We construct the following model (I.) for earnings management analyses. All variables are defined in Appendix 1.

\[
|DA| = \alpha_0 + \beta_1 \text{IFRS}_{it} + \beta_2 \text{Total Assets}_{it} + \beta_3 \text{Leverage}_{it} + \\
\beta_4 \text{Sales growth}_{it} + \beta_5 C\text{f}_{a_{it}} + \beta_6 \text{Change PPE}_{it} + \beta_7 C\text{f}_{oD_{it}} + \\
\beta_8 \text{LossD}_{it} + \beta_9 \text{Big4}_{it} + \beta_{10} \text{New Market}_{it} + \sum_{t} \text{Industry}_{i} + \\
\sum_{t} \text{Year}_{i} + \varepsilon_{it}
\]

(I.)

33 For firms adopting IFRS mandatorily in 2005, the cut-off point chosen results in four “early IFRS years” and four “mature IFRS years”.

329
The choice of control variables is based on prior literature and follows Houqe et al. (2012) and van Tendeloo and Vanstraelen (2005). *IFRS* is a dummy variable equal to 1 for firm-year observations with IFRS reporting.\(^\text{34}\) We include *Total Assets* to control for size-related incentives for earnings management because prior research suggests that larger firms make more income-decreasing accounting choices in response to greater political and regulatory scrutiny (Watts and Zimmerman, 1986). However, more recent studies predict that size is positively associated with earnings quality because of relatively higher costs of internal control procedures for small firms.\(^\text{35}\) Given the fact that we analyze the absolute value of discretionary accruals (\(|DA|\)) and interpret earnings management opportunistically, the latter would result in a negative association between \(|DA|\) and *Total Assets*. Next, we include *Leverage* to control for the leverage-related incentives for earnings management. The direction of the effect of leverage on earnings management, however, is not unambiguous. On the one hand, it is argued that higher leveraged firms are closer to debt covenant violations and are therefore more willing to engage in (income-increasing) earnings management (Watts and Zimmerman, 1986; DeFond and Jiambalvo, 1994; Houqe et al., 2012). On the other hand, it is argued that higher leveraged firms have incentives to engage in income-decreasing earnings management activities for the sake of contractual renegotiations (Becker et al., 1998; van Tendeloo and Vanstraelen, 2005). As we analyze the absolute value of discretionary accruals, this would result in a positive association between \(|DA|\) and *Leverage*. Prior literature suggests a positive relation between the degree of earnings management and growth because growth companies have higher incentives to manage earnings opportunistically in order to attract

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\(^\text{34}\) The distinction between IFRS and local GAAP preparers is based on the Datastream item ‘Accounting Standards Followed’ (WC07536) using the coding of Daske et al. (2013).

\(^\text{35}\) See Dechow et al. (2010) for a discussion of the determinants of earnings management.
investors (Houqe et al., 2012). To capture this effect we include Sales Growth and the change in property, plant and equipment (Change PPE) in our model. Furthermore, we include Cfo to control for the association between operating cash flow and accruals. Following van Tendeloo and Vanstraelen (2005), we expect a positive relation between Cfo and the absolute value of discretionary accruals.

Additionally, we include the dummy variables CfoD and LossD which are intended to control for the higher incentives for firms making losses and experiencing negative operating cash flows to engage in earnings management. Next, we include the dummy variable Big4 to control for the constraining effect of larger auditors on the degree of earnings management (Francis et al., 1999; Becker et al., 1998). In Germany, there are firms which had to mandatorily adopt either IFRS or US GAAP prior to 2005 because Deutsche Börse AG required the financial statements of firms listed on the New Market – a market segment for innovative and fast-growing firms – to be prepared in accordance with international standards. Therefore, we include the dummy New Market in our analyses. Finally, we include dummy variables for years and industries. 36 We run the regressions with heteroskedasticity-adjusted robust standard errors clustered by firm and year (Petersen, 2009) and de-meaned variables. We hypothesize that the introduction of IFRS leads to a decrease in the degree of earnings management. Accordingly, we expect the coefficient $\beta_1$ in the regression above to be negative and significant.

To separately analyze the effect of the early and the mature phase of the individual firms’ IFRS accounting on discretionary accruals, we construct model (II.) below. Here, the dummy IFRS is replaced by the two dummy variables Early IFRS and Mature IFRS, which indicate whether the firm-year observation belongs to the

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36 The industry classification is based on SIC codes (Ernstberger et al., 2013, and Frankel et al., 2002).
Short-term and long-term effects of IFRS adoption on disclosure quality and earnings management

early or mature phase of IFRS reporting. In accordance with our hypotheses H1 and H2, we expect that the coefficient for Mature IFRS is not only negatively significant, but also indicates a stronger decrease of the level of earnings management than the coefficient for Early IFRS.

\[ [DA] = \alpha_0 + \beta_1 Early IFRS_{it} + \beta_2 Mature IFRS_{it} + \beta_3 Total Assets_{it} + \beta_4 Leverage_{it} + \beta_5 Sales growth_{it} + \beta_6 Cfo_{it} + \beta_7 Change PPE_{it} + \beta_8 CfoD_{it} + \beta_9 LossD_{it} + \beta_{10} Big4_{it} + \beta_{11} New Market_{it} + \gamma_i Industry_i + \delta_i Year_i + \epsilon_{it} \]

Multivariate analyses – disclosure quality

We construct the following model (III.) to examine the effect of IFRS adoption on disclosure quality. In this equation, \( DQ \) is the score of the category ‘content’ of the “Best Annual Report” ‘beauty contest’ of *manager magazin*. For details about the calculation of all other variables please refer to Appendix 1. The selection of control variables is again based on prior literature and follows Glaum et al. (2013).37 In general, disclosure quality is associated with firm size, financing needs, and performance (Lang and Lundholm, 1993; Leuz and Verrecchia, 2000). Therefore, we include Total Assets to proxy for size, Leverage to capture the incentives of more highly leveraged firms, and ROA to control for firm performance.

Furthermore, the ratio of a firm’s foreign sales to its total sales (Foreign Sales) is included to proxy for the higher incentives for disclosure for more internationally active firms, whereas the percentage of closely held shares (Close) is included to proxy for ownership concentration. Beta is included to proxy for company risk. In addition, we include the dummy variables Big4 and US-Listing to control for the

37 In addition to the control variables used in our analysis, there are other candidate variables, e.g. number of analysts following or capital intensity (Daske and Gebhardt, 2006). We limit the control variables to those presented in this section to minimize the risk of multicollinearity.
effects of two firm-specific choices, i.e. the choice of a large auditor and the choice to cross-list overseas, on disclosure quality. We expect that both decisions have a positive influence on disclosure quality. Finally, we also include the dummy New Market in these analyses. As in models (I.) and (II.), we include fixed effects for years and industries, employ heteroskedasticity-adjusted robust standard errors clustered by firm and year (Petersen, 2009) and use de-meaned variables. In accordance with hypothesis H1, we expect the coefficient $\beta_1$ for IFRS in the following model (III.) to be significantly positive.

$$DQ = \alpha_0 + \beta_1IFRS_{it} + \beta_2Total\ Assets_{it} + \beta_3Leverage_{it} + \beta_4ROA_{it} + \beta_5Foreign\ sales_{it} + \beta_6Close_{it} + \beta_7Beta_{it} + \beta_8Big4_{it} + \beta_9USListing_{it} + \beta_{10}New\ Market_{it} + \sum \gamma_i Industry_{it} + \sum \delta_i Year_{it} + \varepsilon_{it}$$ (III.)

As in our earnings management analyses, we analyze the effect of the early and mature phase of the individual firms’ IFRS accounting on disclosure quality by estimating model (IV.).

$$DQ = \alpha_0 + \beta_1Early\ IFRS_{it} + \beta_2Mature\ IFRS_{it} + \beta_3Total\ Assets_{it} + \beta_4Leverage_{it} + \beta_5ROA_{it} + \beta_6Foreign\ sales_{it} + \beta_7Close_{it} + \beta_8Beta_{it} + \beta_9Big4_{it} + \beta_{10}USListing_{it} + \beta_{11}New\ Market_{it} + \sum \gamma_i Industry_{it} + \sum \delta_i Year_{it} + \varepsilon_{it}$$ (IV.)

**Multivariate analyses – effect of disclosures on earnings management**

To examine the relation between disclosure quality and earnings management, we include the variable $DQ$ into our first model and estimate the following model (V.). In accordance with our hypothesis H3, we expect the coefficient $\beta_2$ to be significantly negative.

$$|DA| = \alpha_0 + \beta_1IFRS_{it} + \beta_2DQ_{it} + \beta_3Total\ Assets_{it} + \beta_4Leverage_{it} + \beta_5Sales\ growth_{it} + \beta_6Cfo_{it} + \beta_7Change\ PPE_{it} + \beta_8Cfo\ Delta_{it} + \beta_9Loss\ Delta_{it} + \beta_{10}Big4_{it} + \beta_{11}New\ Market_{it} + \sum \gamma_i Industry_{it} + \sum \delta_i Year_{it} + \varepsilon_{it}$$ (V.)
Following the reasoning of Shalev (2009) that disclosures limit managers’ flexibility in subsequent periods, we also conduct this analysis using prior year disclosure scores ($DQ_{t-1}$) to obtain deeper insights into the interplay between our dimensions of transparency. Furthermore, we estimate equation (V.) replacing IFRS by the two dummy variables Early IFRS and Mature IFRS as well as the interaction terms Early IFRS*DQ and Mature IFRS*DQ to examine whether the relationship differs across reporting regimes and time.

4.4 Data Description

Our focus on Germany allows us to use a specific proxy for disclosure quality, the disclosure scores of the annual report ‘beauty contest’ of the German business journal manager magazin. Hence, our sample composition is based on the firms included in this annual report competition and covers a time period from 1995 to 2012. The disclosure scores are merged with financial data taken from Thompson Reuters Datastream. In order to strengthen our database for the analyses of the degree of earnings management, we include information for the whole sample period for all companies that have been covered at least once by the contest, if available. Due to the fact that not all firms are continuously included in the ranking published by manager magazin, the sample for the analyses of disclosure quality is smaller. We exclude firms from countries other than Germany, firms reporting in accordance with US GAAP, banking institutions and insurance firms as well as observations with missing data for the prior year. In total, we end

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38 See footnote 5 for further reasons for limiting our sample to Germany.
39 All variables have been winsorized at the 0.5 percentile and the 99.5 percentile.
40 Other researchers often treat IFRS and US GAAP equally and analyze the effect of the adoption of ‘international standards’ (e.g. Leuz and Verrecchia, 2000, or Daske and Gebhardt, 2006). We solely focus on the adoption of IFRS in our main analyses and use US GAAP observations for additional robustness checks.
up with 2,590 firm-year observations for the earnings management analyses and 1,502 firm-year observations for the analyses of disclosure quality.

5 Results

5.1 Univariate Analyses

Panel A of table 1 shows the development of mean, median and standard deviation of the disclosure score from 1995 to 2012 differentiated by the reporting regime. Simple eyeball statistics show no clear trend for mean and median with local peaks and local valleys. With regard to the two reporting regimes, IFRS statements exhibit higher values in most years.\textsuperscript{41} Panel B of table 1 shows overall mean (median) values and the results of t-tests (Mann-Whitney-Wilcoxon-tests) for German GAAP compared to IFRS and for the early vs. mature phase of the individual firms’ IFRS accounting for the disclosure score as well as for the degree of earnings management ($|DA|$). This analysis shows significantly higher means and medians under IFRS for disclosure quality and, remarkably, also higher values for the degree of earnings management. This result holds when German GAAP is compared to the early phase of the individual firms’ IFRS accounting. When comparing the early phase of the individual firms’ IFRS accounting to the mature phase, there is no statistically significant increase in the disclosure quality score, whereas the t-test shows a decrease significant at the 1%-level for the degree of earnings management.

In summary, these simple analyses provide first evidence that IFRS adoption leads to better disclosure quality in terms of the content of disclosures. Contrarily, our analyses show that the extent of discretionary earnings management increases as a

\textsuperscript{41} There are two companies in our sample which reported in accordance with German GAAP in the year 2005.
result of the change in the reporting regime, but decreases afterwards. However, a comparison of mean and median values does not account for alternative determinants of disclosure quality and the degree of earnings management, such as reporting incentives, firm characteristics and, most importantly, time effects. Therefore, the next subsection discusses our multivariate results.
### Table 1

#### Panel A: Development of disclosure quality score 1995-2012

<table>
<thead>
<tr>
<th>Variable</th>
<th>German GAAP</th>
<th>IFRS</th>
<th>Difference German GAAP / IFRS</th>
<th>Early IFRS</th>
<th>Mature IFRS</th>
<th>Difference German GAAP / Early IFRS</th>
<th>Difference Early IFRS / Mature IFRS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>57.47</td>
<td>58.88</td>
<td>1.40 **</td>
<td>58.04</td>
<td>58.89</td>
<td>0.56 *</td>
<td>0.85</td>
</tr>
<tr>
<td>Median</td>
<td>56.33</td>
<td>58.43</td>
<td>2.11 ***</td>
<td>57.48</td>
<td>58.78</td>
<td>1.15 *</td>
<td>1.30</td>
</tr>
<tr>
<td>Mean</td>
<td>0.062</td>
<td>0.087</td>
<td>0.03 ***</td>
<td>0.100</td>
<td>0.076</td>
<td>0.038 ***</td>
<td>-0.024 ***</td>
</tr>
<tr>
<td>Median</td>
<td>0.034</td>
<td>0.048</td>
<td>0.01 ***</td>
<td>0.048</td>
<td>0.048</td>
<td>0.014 ***</td>
<td>-0.000</td>
</tr>
</tbody>
</table>

Panel A of Table 1 exhibits the development of disclosure quality over time. Panel B shows mean and median values of the disclosure quality score and discretionary accruals for German GAAP, IFRS, early IFRS and mature IFRS, respectively. Early IFRS is defined as the first four years of the individual firm’s IFRS adoption, whether this adoption was voluntary or not. Data for the disclosure quality score has been extracted from the annual report ‘beauty contest’ of manager magazine. ***, ** and * indicate that the means (medians) are significantly different at the 1%-level, 5%-level and 10%-level, respectively, using a two tailed t-test with Satterthwaite’s degrees of freedom (Mann-Whitney-Wilcoxon test). All variables are defined in Appendix 1.
5.2 Multivariate Analyses

Panel A of table 2 exhibits summary statistics of the variables used in our multivariate analyses and panel B shows frequencies of the dummy variables used. All variables are defined in Appendix 1. For the majority (69%) of our firm-year observations, financial statements are prepared in accordance with IFRS, whereas 31% are prepared under German GAAP. We differentiate between the early and the mature phase of the individual firms’ IFRS accounting by assuming that the mature phase of IFRS reporting begins in the fifth year after the adoption. By doing so, we classify 45% of IFRS observations as early, and 55% as mature. Furthermore, 64% of the financial reports are audited by a Big 4 auditor, while 15% of the firm-year observations stem from firms that are cross-listed in the US.42 With regard to the degree of earnings management, average (median) absolute discretionary accruals are at 0.078 (0.044). This indicates that discretionary accruals make up 7.8% (4.4%) of beginning of period total assets.

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42 Following Leuz and Verrecchia (2000), we include observations which are either listed in the US or are available on the US OTC market.
Table 2

**Panel A: Descriptive statistics of variables used in multivariate analyses**

<table>
<thead>
<tr>
<th>Continuous Variables</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Q1</th>
<th>Median</th>
<th>Q3</th>
<th>Max</th>
<th>Firm-Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>DQ</td>
<td>58.32</td>
<td>8.15</td>
<td>39.33</td>
<td>52.67</td>
<td>57.76</td>
<td>63.52</td>
<td>79.83</td>
<td>1,577</td>
</tr>
<tr>
<td></td>
<td>DA</td>
<td></td>
<td>0.078</td>
<td>0.107</td>
<td>0.000</td>
<td>0.015</td>
<td>0.044</td>
<td>0.094</td>
</tr>
<tr>
<td>Total Assets</td>
<td>2.39</td>
<td>2.57</td>
<td>0.18</td>
<td>0.97</td>
<td>1.67</td>
<td>2.89</td>
<td>39.86</td>
<td>2,594</td>
</tr>
<tr>
<td>Leverage</td>
<td>1.76</td>
<td>3.20</td>
<td>0.02</td>
<td>0.40</td>
<td>0.91</td>
<td>1.97</td>
<td>45.86</td>
<td>2,882</td>
</tr>
<tr>
<td>Sales growth</td>
<td>0.23</td>
<td>1.86</td>
<td>-0.91</td>
<td>-0.01</td>
<td>0.07</td>
<td>0.17</td>
<td>57.92</td>
<td>2,821</td>
</tr>
<tr>
<td>Cfo</td>
<td>0.14</td>
<td>0.22</td>
<td>-0.62</td>
<td>0.04</td>
<td>0.11</td>
<td>0.21</td>
<td>1.22</td>
<td>2,594</td>
</tr>
<tr>
<td>Foreign sales</td>
<td>39.84</td>
<td>30.45</td>
<td>0.00</td>
<td>7.96</td>
<td>40.45</td>
<td>67.28</td>
<td>94.60</td>
<td>3,095</td>
</tr>
<tr>
<td>ROA</td>
<td>0.02</td>
<td>0.12</td>
<td>-0.65</td>
<td>0.01</td>
<td>0.03</td>
<td>0.07</td>
<td>0.26</td>
<td>3,092</td>
</tr>
<tr>
<td>Close</td>
<td>32.43</td>
<td>30.59</td>
<td>0.00</td>
<td>0.00</td>
<td>28.80</td>
<td>56.76</td>
<td>98.74</td>
<td>3,095</td>
</tr>
<tr>
<td>Beta</td>
<td>0.60</td>
<td>0.49</td>
<td>-0.15</td>
<td>0.07</td>
<td>0.60</td>
<td>0.98</td>
<td>1.67</td>
<td>3,095</td>
</tr>
<tr>
<td>Change PPE</td>
<td>0.02</td>
<td>0.16</td>
<td>-0.76</td>
<td>-0.01</td>
<td>0.01</td>
<td>0.04</td>
<td>0.92</td>
<td>2,594</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dummy Variables</th>
<th>Firm-Years</th>
<th>0</th>
<th>1</th>
<th>1 in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>IFRS</td>
<td>3,095</td>
<td>965</td>
<td>2,130</td>
<td>69%</td>
</tr>
<tr>
<td>Early IFRS</td>
<td>3,095</td>
<td>2,139</td>
<td>956</td>
<td>31%</td>
</tr>
<tr>
<td>Mature IFRS</td>
<td>3,095</td>
<td>1,921</td>
<td>1,174</td>
<td>38%</td>
</tr>
<tr>
<td>German GAAP</td>
<td>3,095</td>
<td>2,130</td>
<td>965</td>
<td>31%</td>
</tr>
<tr>
<td>US-Listing</td>
<td>3,095</td>
<td>2,631</td>
<td>464</td>
<td>15%</td>
</tr>
<tr>
<td>LossD</td>
<td>3,095</td>
<td>2,495</td>
<td>600</td>
<td>19%</td>
</tr>
<tr>
<td>CfoD</td>
<td>3,095</td>
<td>2,648</td>
<td>447</td>
<td>14%</td>
</tr>
<tr>
<td>Big4</td>
<td>3,095</td>
<td>1,118</td>
<td>1,977</td>
<td>64%</td>
</tr>
<tr>
<td>New Market</td>
<td>3,095</td>
<td>3,053</td>
<td>42</td>
<td>1%</td>
</tr>
</tbody>
</table>

Panel A of Table 2 exhibits the summary statistics of the main variables used in our analysis. Panel B summarizes the frequencies of dummy variables. Data for the disclosure quality score has been extracted from the annual report 'beauty contest' of manager magazin. The data for all other variables is based on the Thomson Reuters Worldscope database. All variables are defined in Appendix 1.

Table 2: Descriptive statistics and frequencies of dummy variables

The lower (upper) triangle of table 3 presents Pearson (Spearman) correlations of the variables used in our analyses. The correlation between the degree of earnings management and the disclosure score is significantly negative. This is a first indication in support of our hypothesis of a constraining effect of disclosures on earnings management. With regard to the dummy variable IFRS, we see a significantly
positive correlation with the disclosure score which strengthens the results from the univariate analyses. However, the correlation between IFRS and $|DA|$ is insignificant (Spearman) or significantly positive (Pearson), respectively. As the latter result seems to be driven by the early phase of the individual firms’ IFRS accounting, the correlation matrix provides some support for our hypothesis H2.
### Table 3: Pearson-Spearman Correlations among Regression Variables

| DQ | [DA] | Total Assets | Leverage | Sales growth | Cfo | Foreign Sales | ROH | Chow | Change PPE | IFRS | Early IFRS | Mature IFRS | German GAAP | EU Listing | Load | Cfd | Big 4 | New Market | Beta |
|----|------|--------------|----------|-------------|-----|-------------|-----|------|-----------|-------|-----------|------------|------------|------------|--------|-----|-----|-------|--------|-----|
| 0.790 | 0.119 | -0.011 | -0.119 | 0.010 | 0.001 | 0.000 | 0.311 | 0.051 | 0.000 | 0.270 | 0.000 | 0.295 | 0.270 | 0.081 | 0.049 | 0.000 | 0.000 | 0.000 | -0.106 |

**Note:** Pearson-Spearman correlation coefficients are shown in the lower (upper) triangle of the table. Two-tailed p-values are presented in parentheses. All variables are defined in Appendix 1.
Table 4 shows the results of estimating equations (I.) and (II.) with discretionary accruals as the dependent variable.\textsuperscript{43} First, when we solely compare IFRS reporting observations to German GAAP observations, the estimation of equation (I.) shows that discretionary accruals are higher under IFRS even when controlling for firm characteristics, reporting incentives and time, as the coefficient for IFRS is positive and significant at the 5% level. As was the case in our univariate results, this is contrary to our hypothesis H1 but consistent with prior short-term studies that document that IFRS observations exhibit more earnings management than German GAAP observations (van Tendeloo and Vanstraelen, 2005; Callao and Jarne, 2010).

With regard to the distinction between the early phase of IFRS reporting and the mature phase, the estimation of equation (II.) shows that the early phase exhibits significantly higher discretionary accruals as compared to German GAAP, whereas the mature phase does not. This result holds, when we estimate the equation without the early phase observations, which leads us to conclude that there is no significant change in the earnings management behavior of firms in the long run as the increase in earnings management through discretionary accruals in the first years of IFRS application ceases to exist. We suggest that this results from improving compliance, learning curves of preparers and auditors, decreasing effects of the first-time adoption rules of IFRS 1, emerging common guidelines and interpretations as well as the increased effectiveness of enforcement.

\textsuperscript{43} With regard to our control variables, the insignificance of Leverage and Sales Growth is surprising. We attribute this to collinearity, which, however, should not cause trouble here because variance inflation factors are smaller than 3 for all control variables (except industry and year dummies).
Table 4

Results for the effect of IFRS adoption on the degree of earnings management

<table>
<thead>
<tr>
<th>Equation No.</th>
<th>(I.)</th>
<th>(II.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent Variable</td>
<td>$</td>
<td>DA</td>
</tr>
<tr>
<td>Variables</td>
<td>Coefficient</td>
<td>t-statistic</td>
</tr>
<tr>
<td>IFRS</td>
<td>0.017</td>
<td>** 2.25</td>
</tr>
<tr>
<td>Early IFRS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mature IFRS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Assets</td>
<td>-0.004</td>
<td>** -2.02</td>
</tr>
<tr>
<td>Leverage</td>
<td>0.001</td>
<td>0.30</td>
</tr>
<tr>
<td>Sales growth</td>
<td>0.005</td>
<td>1.38</td>
</tr>
<tr>
<td>CFO</td>
<td>0.028</td>
<td>*** 2.75</td>
</tr>
<tr>
<td>Change PPE</td>
<td>0.035</td>
<td>*** 3.01</td>
</tr>
<tr>
<td>CFOD</td>
<td>0.063</td>
<td>*** 8.55</td>
</tr>
<tr>
<td>LossD</td>
<td>0.011</td>
<td>1.48</td>
</tr>
<tr>
<td>Big4</td>
<td>-0.013</td>
<td>** -2.37</td>
</tr>
<tr>
<td>New Market</td>
<td>0.028</td>
<td>1.01</td>
</tr>
<tr>
<td>Industry dummies</td>
<td>Included</td>
<td>Included</td>
</tr>
<tr>
<td>Year dummies</td>
<td>Included</td>
<td>Included</td>
</tr>
<tr>
<td>Firm Years</td>
<td>2,590</td>
<td>2,590</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.1481</td>
<td>0.1486</td>
</tr>
<tr>
<td>Adj. $R^2$</td>
<td>0.1361</td>
<td>0.1362</td>
</tr>
</tbody>
</table>

This table shows the coefficients and t-statistics for estimating equations (I.) and (II.) as an OLS regression that includes fixed effects for fiscal year and industry (not tabulated). The analysis employs heteroskedasticity-adjusted robust standard errors clustered by firm and year (Petersen (2009)). The regression is estimated with an intercept included (not tabulated). ***, **, and * denote p-value significance at the 1%, 5% and 10% levels, with two-tailed tests. All variables are defined in Appendix 1.

Table 4: Multivariate results for the effect of IFRS adoption on earnings management
In a next step, we investigate the effect of IFRS adoption on disclosure quality by estimating equation (III.) as presented in table 5. As the coefficient for IFRS is positive and significant, we conclude that IFRS adoption has a positive effect on the quality of disclosures. Together with our univariate results, this supports our hypothesis H1 and is in line with prior research (Leuz and Verrecchia, 2000; Daske and Gebhardt, 2006; Glaum et al., 2013).

Table 5 further shows the results of estimating equation (IV.) which differentiates between the early and the mature phase of the individual firms’ IFRS accounting. This analysis shows that both the firms’ early phase and the firms’ mature phase exhibit significantly higher disclosure quality scores as compared to German GAAP. Moreover, the coefficient for Mature IFRS is significantly higher than the coefficient for Early IFRS at the 5% level, indicating that disclosure quality not only increases as a result of IFRS adoption but continues to increase in the more mature phase of IFRS reporting. Since our results suggest a concurrent decrease in the level of earnings management, hypothesis H2 is supported by both of our transparency metrics.

44 Again, the insignificance of Total Assets, Leverage and ROA is surprising. However, Leverage is significantly correlated with Total Assets ($\rho = 0.665$) and ROA ($\rho = -0.266$). Without controlling for Leverage, the coefficients for Total Assets and ROA become significant, while our overall results remain unchanged. Furthermore, variance inflation factors are smaller than 3 for all control variables (except for the industry and year dummies). Therefore, we are not concerned about collinearity in the data. The coefficients for Close and US-Listing are insignificant. Exclusion of these variables does not change the results either.
Table 5

Results for the effect of IFRS adoption on disclosure quality

<table>
<thead>
<tr>
<th>Equation No.</th>
<th>(III.)</th>
<th>(IV.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent Variable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DQ</td>
<td>DQ</td>
<td></td>
</tr>
<tr>
<td>Variables</td>
<td>Coefficient</td>
<td>t-statistic</td>
</tr>
<tr>
<td>IFRS</td>
<td>2.381 **</td>
<td>2.00</td>
</tr>
<tr>
<td>Early IFRS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mature IFRS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Assets</td>
<td>0.100</td>
<td>0.50</td>
</tr>
<tr>
<td>Leverage</td>
<td>0.121</td>
<td>1.41</td>
</tr>
<tr>
<td>ROA</td>
<td>4.959</td>
<td>1.22</td>
</tr>
<tr>
<td>Foreign sales</td>
<td>0.034 **</td>
<td>2.44</td>
</tr>
<tr>
<td>Close</td>
<td>-0.012</td>
<td>-0.78</td>
</tr>
<tr>
<td>Beta</td>
<td>2.675 ***</td>
<td>3.32</td>
</tr>
<tr>
<td>Big4</td>
<td>1.672 **</td>
<td>2.07</td>
</tr>
<tr>
<td>US-Listing</td>
<td>1.253</td>
<td>1.05</td>
</tr>
<tr>
<td>New Market</td>
<td>-4.839 **</td>
<td>-2.13</td>
</tr>
<tr>
<td>Industry dummies</td>
<td>Included</td>
<td>Included</td>
</tr>
<tr>
<td>Year dummies</td>
<td>Included</td>
<td>Included</td>
</tr>
<tr>
<td>Firm Years</td>
<td>1,502</td>
<td>1,502</td>
</tr>
<tr>
<td>R²</td>
<td>0.2153</td>
<td>0.2199</td>
</tr>
<tr>
<td>Adj. R²</td>
<td>0.1965</td>
<td>0.2008</td>
</tr>
</tbody>
</table>

This table shows the coefficients and t-statistics for estimating Equations (III.) and (IV.) as OLS regressions that include fixed effects for fiscal year and industry (not tabulated). The analysis employs heteroskedasticity-adjusted robust standard errors clustered by firm and year (Petersen (2009)). The regression is estimated with an intercept included (not tabulated). ***, **, and * denote p-value significance at the 1%, 5% and 10% levels, with two-tailed tests. All variables are defined in Appendix 1.

Table 5: Multivariate results for the effect of IFRS adoption on disclosure quality

The finding of increased earnings management under IFRS while, concurrently, the quality of disclosures provided increased significantly is remarkable, especially in the light of our expectation of a negative relation between the two dimensions of transparency. Table 6 shows the results of estimating equation (V.) with discretionary accruals as the dependent variable. In these regressions, the disclosure quality score serves as an additional explanatory variable.
While the coefficient for IFRS is still significant but only at the 10%-level, the coefficient for DQ is significantly negative at the 1% level, indicating that disclosures limit the scope for earnings management. This is in line with prior research which generally finds a negative (positive) association between disclosure quality and earnings management (quality). Similarly, replacing DQ by prior year disclosure scores (DQ_{t-1}) reveals a significantly negative association between past disclosures and the degree of earnings management at the 5% level (not tabulated). This provides empirical support for the notion that disclosures limit earnings management opportunities in future periods. Together with our univariate results, these results support our hypothesis H3 that higher quality disclosures have a constraining effect on earnings management.

However, when estimating equation (V.) with the dummy variables Early IFRS and Mature IFRS as well as the interaction terms Early IFRS*DQ and Mature IFRS*DQ, the results show the following patterns: Compared to German GAAP, early IFRS observations show significantly higher discretionary accruals which is in line with our results above. Remarkably, this effect is partly offset by the level of disclosures, i.e. there is a constraining effect of disclosures on the association between earnings management and IFRS adoption (significantly negative coefficient for Early IFRS*DQ). With regard to the mature IFRS observations, both the impact of IFRS adoption on the level of earnings management (see results above) and the constraining effect cease to exist.

We interpret this as follows: When accounting standards require a comparatively low level of disclosures (as under German GAAP) and/or when financial statements are influenced by low compliance, little experience, weak enforcement, and, importantly, lack of common guidelines and interpretations requiring judg-
mental decisions (as in the early IFRS phase), disclosures help to limit earnings management. When compliance, experience and enforcement improve and common guidelines and interpretations develop in the course of IFRS application, these factors likely help to limit earnings management so that the marginal effect of more disclosures is reduced.

Further, the fact that we find a negative association for the early phase of the individual firms’ IFRS accounting strengthens our interpretation that disclosures have the potential to limit the scope for earnings management. Since IFRS require more disclosures and, as shown above, disclosure quality increases as a result of the adoption of IFRS, our setting offers a strengthening of disclosure regulation which makes disclosure quality more likely to be determined exogenously in the initial years of IFRS accounting.
Table 6

Results for the relationship between disclosure quality and earnings management

<table>
<thead>
<tr>
<th>Equation No.</th>
<th>(V.)</th>
<th>(V.) modified</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent Variable</td>
<td>$</td>
<td>DA</td>
</tr>
<tr>
<td>Variables</td>
<td>Coefficient</td>
<td>t-statistic</td>
</tr>
<tr>
<td>$DQ$</td>
<td>-0.001 **</td>
<td>-2.73</td>
</tr>
<tr>
<td>$IFRS$</td>
<td>0.014 *</td>
<td>1.75</td>
</tr>
<tr>
<td>Early IFRS</td>
<td>0.103 *</td>
<td>1.78</td>
</tr>
<tr>
<td>Early IFRS * $DQ$</td>
<td>-0.001 *</td>
<td>-1.65</td>
</tr>
<tr>
<td>Mature IFRS</td>
<td>0.003</td>
<td>0.09</td>
</tr>
<tr>
<td>Mature IFRS * $DQ$</td>
<td>0.000</td>
<td>0.41</td>
</tr>
<tr>
<td>Total Assets</td>
<td>-0.002</td>
<td>-1.27</td>
</tr>
<tr>
<td>Leverage</td>
<td>-0.002 *</td>
<td>-1.71</td>
</tr>
<tr>
<td>Sales growth</td>
<td>0.042 ***</td>
<td>5.37</td>
</tr>
<tr>
<td>$Cfo$</td>
<td>0.028 ***</td>
<td>2.56</td>
</tr>
<tr>
<td>Change PPE</td>
<td>0.009</td>
<td>0.65</td>
</tr>
<tr>
<td>$CfoD$</td>
<td>0.046 ***</td>
<td>5.05</td>
</tr>
<tr>
<td>LossD</td>
<td>0.015 **</td>
<td>1.97</td>
</tr>
<tr>
<td>Big4</td>
<td>-0.013 *</td>
<td>-1.71</td>
</tr>
<tr>
<td>New Market</td>
<td>-0.019</td>
<td>-0.79</td>
</tr>
<tr>
<td>Industry dummies</td>
<td>Included</td>
<td></td>
</tr>
<tr>
<td>Year dummies</td>
<td>Included</td>
<td></td>
</tr>
<tr>
<td>Firm Years</td>
<td>1,502</td>
<td></td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.1877</td>
<td></td>
</tr>
<tr>
<td>Adj. $R^2$</td>
<td>0.1677</td>
<td></td>
</tr>
</tbody>
</table>

This table shows the coefficients and t-statistics for estimating Equation (V.) as an OLS regression that includes fixed effects for fiscal year and industry (not tabulated) as well as for estimating Equation (V.) including dummy variables for the early and mature phase of the individual firms' IFRS accounting and interaction terms for these dummy variables and the disclosure quality score. The analysis employs heteroscedasticity-adjusted robust standard errors clustered by firm and year (Petersen (2009)). The regression is estimated with an intercept included (not tabulated). ***, **, and * denote p-value significance at the 1%, 5% and 10% levels, with two-tailed tests. All variables are defined in Appendix 1.

Table 6: Multivariate results for the relationship between disclosure quality and earnings management
5.3 Robustness Checks

Alternative discretionary accruals models and alternative sample compositions

We conduct various robustness checks to validate our results. First, we use alternative models of discretionary accruals, namely the standard Jones (1991) model and the modified Jones model from Dechow et al. (1995). All discretionary accruals models show similar results (not tabulated). Second, we check the robustness of our results for alternative sample compositions. To this end, we run our analyses only with firm-year observations which are included in the annual report ranking and without the individual adoption year, respectively. The latter is based on the notion that the adoption year is likely to be influenced by one-off effects which may influence our results. Both approaches show results similar to our main analyses (not tabulated).

Alternative indicator for earnings management – PM/ATO diagnostic of Jansen et al. (2012)

Third, we take into account that discretionary accruals, despite their widespread use, are only one possible approach to proxy for earnings management and that this methodology has well-known shortcomings. To mitigate concerns regarding our main proxies, we use the PM/ATO diagnostic of Jansen et al. (2012) as an alternative earnings management measure. This diagnostic is based on the notion that contemporaneous changes of profit margin (PM) and asset turnover (ATO) in opposite directions could signal earnings management. For example, if a firm manages earnings downwards by overstating bad debt allowance, both net income and accounts receivable on the balance sheet will decrease. For a given level of sales, this results in a decreasing profit margin and in an increasing asset turnover.
Therefore, we construct a dummy variable $PM/ATO$ equal to 1 if $\Delta PM > 0$ and $\Delta ATO < 0$ or $\Delta PM < 0$ and $\Delta ATO > 0$ and zero otherwise.\textsuperscript{45} Table 7 shows univariate and multivariate results with regard to this measure. In general, the mean of $PM/ATO$ increases significantly from 0.34 to 0.37 as a result of IFRS adoption. When comparing the mean for early and mature IFRS accounting, we see a further increase which is, however, statistically not different from zero.

In panel B of table 7, $PM/ATO$ serves as dependent variable of logistic regressions with fixed effects for industries and years. Although the pseudo $R^2$ is low, the goodness of fit measures of Pearson and Hosmer-Lemeshow indicate that our model fits reasonably well. In general, our results above are supported by this analysis. The IFRS dummy is positively significant in equation (I.) which seems to be driven by the early IFRS observations as indicated in equation (II.). Furthermore, we also find a negative coefficient for the disclosure quality score in equation (V.) which supports our notion of a constraining effect of disclosures on earnings management.

\textsuperscript{45} To prevent cases where the diagnostic is likely to detect only the reversal of earnings management, we require that upward earnings management is not followed by downward earnings management in the subsequent period and vice versa.
Table 7: Results for robustness checks using the PM/ATO diagnostic of Jansen et al. (2012) as an alternative earnings management measure

Panel A: Robustness of earnings management results: PM/ATO-diagnostic based on Jansen et al. (2012) - Comparison of means

<table>
<thead>
<tr>
<th>Variable</th>
<th>German GAAP</th>
<th>IFRS</th>
<th>Difference</th>
<th>Early IFRS</th>
<th>Mature IFRS</th>
<th>Difference</th>
<th>Early IFRS / Early IFRS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM/ATO</td>
<td>0.34</td>
<td>0.37</td>
<td>0.03</td>
<td>0.36</td>
<td>0.39</td>
<td>0.02</td>
<td>*</td>
</tr>
</tbody>
</table>

Panel B: Robustness of earnings management results: PM/ATO-diagnostic based on Jansen et al. (2012) - Multivariate analysis

<table>
<thead>
<tr>
<th>Equation No.</th>
<th>(I.)</th>
<th>(II.)</th>
<th>(V.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent Variable</td>
<td>PM/ATO</td>
<td>PM/ATO</td>
<td>PM/ATO</td>
</tr>
<tr>
<td>Variables</td>
<td>Coefficient</td>
<td>t-statistic</td>
<td>Coefficient</td>
</tr>
<tr>
<td>IFRS</td>
<td>0.204</td>
<td>* 1.73</td>
<td>0.239</td>
</tr>
<tr>
<td>Early IFRS</td>
<td></td>
<td></td>
<td>0.067</td>
</tr>
<tr>
<td>Mature IFRS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DQ</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total assets</td>
<td></td>
<td></td>
<td>0.020</td>
</tr>
<tr>
<td>Leverage</td>
<td>-0.002</td>
<td>-0.12</td>
<td>-0.002</td>
</tr>
<tr>
<td>Sales growth</td>
<td>-0.150</td>
<td>-1.23</td>
<td>-0.152</td>
</tr>
<tr>
<td>CFO</td>
<td>-0.328</td>
<td>-1.24</td>
<td>-0.331</td>
</tr>
<tr>
<td>Change PPE</td>
<td>0.054</td>
<td>0.23</td>
<td>0.051</td>
</tr>
<tr>
<td>CfoD</td>
<td>-0.168</td>
<td>** -2.19</td>
<td>-0.170</td>
</tr>
<tr>
<td>LossD</td>
<td>0.001</td>
<td>0.02</td>
<td>0.006</td>
</tr>
<tr>
<td>Big4</td>
<td>0.013</td>
<td>0.18</td>
<td>0.009</td>
</tr>
<tr>
<td>New market</td>
<td>-0.850</td>
<td>** -2.26</td>
<td>-0.849</td>
</tr>
<tr>
<td>Industry dummys</td>
<td>Included</td>
<td>Included</td>
<td>Included</td>
</tr>
<tr>
<td>Year dummys</td>
<td>Included</td>
<td>Included</td>
<td>Included</td>
</tr>
<tr>
<td>Firm Years</td>
<td>2,590</td>
<td>2,590</td>
<td>1,502</td>
</tr>
<tr>
<td>p-value for Pearson goodness of fit Chi²</td>
<td>0.2739</td>
<td>0.2683</td>
<td>0.2320</td>
</tr>
<tr>
<td>p-value for Hosmer-Lemeshow goodness of fit Chi² using 10 groups</td>
<td>0.8668</td>
<td>0.9546</td>
<td>0.6312</td>
</tr>
<tr>
<td>Percent correctly predicted</td>
<td>0.6042</td>
<td>0.6062</td>
<td>0.6172</td>
</tr>
<tr>
<td>McFadden's Pseudo R²</td>
<td>0.0145</td>
<td>0.0151</td>
<td>0.0271</td>
</tr>
</tbody>
</table>

Panel A of this table shows mean values for another indicator for earnings management: The PM/ATO diagnostic based on Jansen et al. (2012). This measure is based on the notion that contemporaneous increases (decreases) in profit margin and decreases (increases) in asset turnover are a potential indicator for earnings management. ***, ** and * indicate that the means are significantly different at the 1%-level, 5%-level and 10%-level, respectively, using a two tailed t-test with Satterthwaite's degrees of freedom. Panel B presents regression results with the PM/ATO diagnostic as dependent variable. The regressions have been run as logistic regressions that include fixed effects for fiscal year and industry and an intercept (not tabulated). The analysis employs heteroskedasticity-adjusted robust standard errors clustered by industry. All variables are defined in Appendix 1.
Fourth, there are several firms which adopted US GAAP prior to 2005. To focus on IFRS, we exclude these observations in our main analyses. Table 8 presents the results of estimating equations (I.), (II.) and (V.) for the entire sample including US GAAP observations. To this end, we construct the dummy variables International, Early International and Mature International which follow the same logic as before but consist of both IFRS and US GAAP observations.

For equation (I.), International is significantly positive though this association seems to be driven by the early phase of the individual firms’ adoption of international standards as indicated in the results for equation (II.). As the coefficient for Mature International is not significant, we conclude that there is no statistically significant difference in discretionary accruals between German GAAP and the mature phase of accounting under internationally recognized standards. Thus, our results for the effect of international standards on earnings management are robust to the inclusion of US GAAP observations.

With regard to equation (V.), we again see a significantly negative coefficient for the disclosure quality score, which underpins our notion of a constraining effect of disclosures on earnings management. In this equation, however, the coefficient for International becomes insignificant. As the correlation between International and DQ is low (ρ = 0.059), we do not attribute the loss of significance to collinearity. Rather, a possible explanation is the following: When controlling for disclosure quality, the effect of the accounting regime on the degree of earnings management

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46 Univariate results and results of the estimation of the disclosure models do not change due to the inclusion of US GAAP observations. Therefore, these results are not tabulated.

47 Note that the proportion of IFRS observations as compared to US GAAP observations especially within the Mature International dummy increases over time as a result of the mandatory adoption of IFRS.
is reduced. This is also in line with our results above where the significance of the IFRS dummy drops from the 5% level to the 10% level once the disclosure quality score is included. Another possible explanation lies in the lower number of observations in equation (V.) as compared to equation (I.).

Table 8

Robustness of earnings management results: The effect of the adoption of international standards

<table>
<thead>
<tr>
<th>Equation No.</th>
<th>(I.)</th>
<th>(II.)</th>
<th>(V.)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent Variable</strong></td>
<td>$</td>
<td>DA</td>
<td>$</td>
</tr>
<tr>
<td><strong>Variables</strong></td>
<td>Coefficient</td>
<td>t-statistic</td>
<td>Coefficient</td>
</tr>
<tr>
<td>International</td>
<td>0.017 *</td>
<td>1.90</td>
<td>0.025 ***</td>
</tr>
<tr>
<td>Early International</td>
<td>0.010</td>
<td>1.31</td>
<td>-0.004 **</td>
</tr>
<tr>
<td>Mature International</td>
<td>-0.004 **</td>
<td>-2.30</td>
<td>0.000</td>
</tr>
<tr>
<td><strong>DQ</strong></td>
<td>0.007 *</td>
<td>1.65</td>
<td>0.007 *</td>
</tr>
<tr>
<td>Total Assets</td>
<td>-0.001 ***</td>
<td>-3.17</td>
<td>-0.002</td>
</tr>
<tr>
<td>Leverage</td>
<td>0.000</td>
<td>0.26</td>
<td>0.000</td>
</tr>
<tr>
<td>Sales growth</td>
<td>0.028 **</td>
<td>2.40</td>
<td>0.028 **</td>
</tr>
<tr>
<td>Cfo</td>
<td>0.034 ***</td>
<td>3.49</td>
<td>0.032 ***</td>
</tr>
<tr>
<td>Change PPE</td>
<td>0.034 ***</td>
<td>3.49</td>
<td>0.032 ***</td>
</tr>
<tr>
<td>CfoD</td>
<td>0.063 ***</td>
<td>9.14</td>
<td>0.063 ***</td>
</tr>
<tr>
<td>LossD</td>
<td>-0.013 **</td>
<td>-2.28</td>
<td>-0.012 **</td>
</tr>
<tr>
<td>Big4</td>
<td>0.043</td>
<td>1.31</td>
<td>0.044</td>
</tr>
<tr>
<td>New Market</td>
<td>Included</td>
<td>Included</td>
<td>Included</td>
</tr>
<tr>
<td>Industry dummies</td>
<td>Included</td>
<td>Included</td>
<td>Included</td>
</tr>
<tr>
<td>Year dummies</td>
<td>Included</td>
<td>Included</td>
<td>Included</td>
</tr>
<tr>
<td>Firm Years</td>
<td>2,913</td>
<td>2,913</td>
<td>1,698</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.1692</td>
<td>0.1729</td>
<td>0.1964</td>
</tr>
<tr>
<td>Adj. $R^2$</td>
<td>0.1588</td>
<td>0.1623</td>
<td>0.1790</td>
</tr>
</tbody>
</table>

This table shows the coefficients and t-statistics for estimating equations (I.), (II.) and (V.) as an OLS regression that includes fixed effects for fiscal year and industry (not tabulated). The analysis employs heteroskedasticity-adjusted robust standard errors clustered by firm and year (Petersen (2009)). The regression is estimated with an intercept included (not tabulated). ***, **, and * denote p-value significance at the 1%, 5% and 10% levels, with two-tailed tests. All variables are defined in Appendix 1.

Table 8: Results for robustness checks including US GAAP observations
Fifth, we run further analyses with regard to the distinction between voluntary and mandatory adoption, since prior research has shown that the effects of IFRS adoption may differ (see e.g. Soderstrom and Sun, 2007). For this reason, table 9 repeats our univariate analyses for voluntary and mandatory adopters. In this analysis, we define ‘early’ voluntary (mandatory) as the first four years of the individual firms’ IFRS reporting as long as this period has been entirely voluntary (mandatory). For example, if a firm voluntarily adopted IFRS in the year 1997, the years 1997-2000 are defined as early voluntary, whereas the years 2000-2004 are defined as mature voluntary. In case the firm adopted IFRS in 2003, this firm is excluded from this analysis as we do not have sufficient mature voluntary observations.

In general, both voluntary and mandatory IFRS accounting years exhibit (significantly) higher means and medians for the disclosure quality score and for discretionary accruals as compared to German GAAP. When comparing the early and the mature phase of IFRS reporting, this analysis shows a significant increase in the disclosure quality score and a significant decrease in discretionary accruals for both voluntary and mandatory adoption years. Hence, we conclude that our overall results regarding the development of disclosure quality and earnings management do not differ substantially between voluntary and mandatory adopters. Moreover, since mandatory IFRS reporting and accounting enforcement by the German FREP have been introduced contemporaneously, this analysis suggests that our results are not primarily driven by the mere introduction of enforcement.

48 The same logic applies for mandatory adopters, e.g. for firms which mandatorily adopted IFRS in 2005, the early phase is defined as the years 2005-2008 and the mature phase as 2009-2012.

49 With regard to discretionary accruals, only the mean values decrease significantly (at the 1%-level).
Table 9
Panel A: Distinction between German GAAP and voluntary / mandatory IFRS adoption

<table>
<thead>
<tr>
<th></th>
<th>German GAAP</th>
<th>Voluntary IFRS</th>
<th>Mandatory IFRS</th>
<th>Difference German GAAP / Voluntary IFRS</th>
<th>Difference German GAAP / Mandatory IFRS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean DQ</td>
<td>57.47</td>
<td>60.18</td>
<td>58.14</td>
<td>2.71 ***</td>
<td>0.67</td>
</tr>
<tr>
<td>Median DQ</td>
<td>56.33</td>
<td>60.75</td>
<td>57.63</td>
<td>4.42 ***</td>
<td>1.31 **</td>
</tr>
<tr>
<td>Mean</td>
<td>0.062</td>
<td>0.099</td>
<td>0.081</td>
<td>0.038 ***</td>
<td>0.020 ***</td>
</tr>
<tr>
<td>Median</td>
<td>0.034</td>
<td>0.048</td>
<td>0.048</td>
<td>0.013 ***</td>
<td>0.013 ***</td>
</tr>
</tbody>
</table>

Panel B: Distinction between early and mature voluntary adoption and between early and mature mandatory adoption

<table>
<thead>
<tr>
<th></th>
<th>Early Voluntary</th>
<th>Mature Voluntary</th>
<th>Difference Early Voluntary / Mature Voluntary</th>
<th>Early Mandatory</th>
<th>Mature Mandatory</th>
<th>Difference Early Mandatory / Mature Mandatory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean DQ</td>
<td>59.44</td>
<td>61.84</td>
<td>2.40 **</td>
<td>56.92</td>
<td>58.57</td>
<td>1.65 **</td>
</tr>
<tr>
<td>Median DQ</td>
<td>60.02</td>
<td>62.96</td>
<td>2.94 **</td>
<td>56.39</td>
<td>58.41</td>
<td>2.02 ***</td>
</tr>
<tr>
<td>Mean</td>
<td>0.107</td>
<td>0.067</td>
<td>-0.039 ***</td>
<td>0.094</td>
<td>0.075</td>
<td>-0.019 ***</td>
</tr>
<tr>
<td>Median</td>
<td>0.048</td>
<td>0.049</td>
<td>0.001</td>
<td>0.050</td>
<td>0.047</td>
<td>-0.003</td>
</tr>
</tbody>
</table>

Panel A of this table shows mean and median values of disclosure quality scores and discretionary accruals for German GAAP as compared to voluntary and mandatory IFRS adoption. Panel B shows means and medians for early voluntary / mandatory versus mature voluntary / mandatory IFRS adoption. In this analysis, 'early' is defined as the first four years of the individual firms' IFRS adoption as long as this has been entirely voluntary or entirely mandatory. Data for the disclosure quality scores has been extracted from the annual report 'beauty contest' of manager magazin. ***, ** and * indicate that the means (medians) are significantly different at the 1%-level, 5%-level and 10%-level, respectively, using a two tailed t-test with Satterthwaite's degrees of freedom (Mann-Whitney-Wilcoxon test). All variables are defined in Appendix 1.

Table 9: Analysis differentiating with regard to voluntary and mandatory adoption of IFRS

6 Conclusion

The purpose of this study is to examine the effects of IFRS adoption on two different but related measures of the transparency of financial reporting, namely the degree of earnings management and disclosure quality. Based on a German sample ranging from 1995 to 2012, we not only investigate whether transparency increased in the course of IFRS adoption, but also whether there is a difference between the early and the mature phase of IFRS reporting. Furthermore, we assess the relation between disclosure quality and earnings management. Since IFRS
require more disclosures than German GAAP, the regulatory change from national to international accounting standards offers a setting in which the tightening of disclosure requirements allows deeper insights into the constraining effect of disclosures on earnings management. Moreover, enhanced disclosures under IFRS have been brought forward as one argument to expect a decrease in earnings management as a consequence of the adoption of IFRS (see Doukakis, 2014) which makes the association between disclosure quality and earnings management around the regulatory change a matter of great interest.

Prior results for the effect of IFRS adoption on earnings management are mixed (e.g. Ahmed et al., 2013). For Germany, van Tendeloo and Vanstraelen (2005) and Callao and Jarne (2010) find no decrease of discretionary accruals studying some few years around voluntary and mandatory adoption of IFRS, respectively. We attempt to provide an alternative explanation to conflicting findings of prior research by studying a longer time period. Our results indicate that IFRS adoption initially leads to an increase in earnings management through discretionary accruals which is reduced in the mature phase of IFRS reporting. We attribute this to the following: In the early phase of IFRS accounting, compliance was lower as the parties involved (preparers, auditors, and users) were in the process of accumulating the necessary experience. Moreover, the extraordinary effects of the first-time adoption rules of IFRS 1 diminish over time. Further, both emerging guidelines and common interpretations and the creation and development of the German FREP are likely to have contributed to a stepwise increase in accounting quality and, thus, a reduction of earnings management. Considering the dimension of the IFRS adoption, financial reporting stakeholders should clearly be interested in the long-term development rather than in short-term, transitory effects. Thus, our
study may mitigate concerns raised by prior studies examining short time hori-

zons.

With regard to the quality of disclosures, we find a positive effect of IFRS adop-
tion which is in line with the notion of enhanced disclosure requirements under
IFRS as compared to German GAAP and supplements prior research (Leuz and
Verrecchia, 2000; Daske and Gebhardt, 2006; Glaum et al., 2013). Moreover, our
findings indicate that disclosure quality continues to improve under IFRS over
time. Having documented these effects of IFRS adoption on our transparency met-
ricks, we further show that disclosure quality and earnings management are signifi-
cantly negatively related. This is in line with most prior studies which, however,
focused on US and UK settings and therefore, only provide limited evidence for
the IFRS reporting regime. Thus, we are among the first who consider a Continen-
tal European country and deliver evidence for a negative association between dis-
closures and the degree of earnings management under IFRS.

The negative relation holds for German GAAP and early IFRS observations.
When compliance, experience and enforcement improve and guidelines and inter-
pretations develop in the mature phase of IFRS application, these factors likely
mitigate earnings management so that the marginal effect of better disclosures is
reduced. Since we also find evidence for a negative association using prior year’s
disclosure levels and current year’s earnings management levels and the switch to
IFRS can be interpreted as an increase in disclosure quality that is more likely to
be exogenous, our results support the notion that the greater the amount and the
higher the quality of disclosures are, the smaller the room for earnings manage-
ment is. This is in line with one of the IASB’s intentions for disclosure require-
ments, i.e. to ensure that financial statements faithfully represent what they pur-
port to represent. These findings are of interest to standard setters as well as users of financial reporting. The former should feel encouraged to demand high quality disclosures, especially with regard to management’s estimates and assumptions, while the latter should be aware of the use of discretionary accounting in the absence of disclosures.

Our results are robust to various specifications of discretionary accruals, the alternative earnings management diagnostic developed by Jansen et al. (2012) and to other reasonable specifications of the early and the mature phase of IFRS accounting. Furthermore, we show that our results do not differ substantially for voluntary and mandatory adopters of IFRS and for the broader application of ‘international standards’ (IFRS and US GAAP).

However, the accounting numbers and disclosures observed are the results of not only accounting standards, but the whole financial reporting system, including accounting standards, their interpretation as well as enforcement and litigation (Barth et al., 2008) making it impossible to attribute any effects solely to changes in the standards applied. Furthermore, although we only study a single country and control for a range of firm characteristics and incentives, we cannot be sure that our findings can solely be attributed to changes in the financial reporting system. Though, of course, we explicitly address factors which we suggest to contribute to the results observed, especially regarding the improvements over time. Moreover, since our sample is based on the firms covered by the “Best Annual Report” competition published in the manager magazin it is biased towards larger firms which may limit the generalizability of our findings. Nonetheless, bigger firms account for a large share of IFRS applicants and, in our view, there are no
obvious reasons for contrary expectations regarding the development of financial reporting quality of smaller firms under IFRS.

With our study, we respond to the demand for studying a longer time horizon after IFRS adoption (Callao and Jarne, 2010) which might help to reconcile conflicting results of prior research and the underlying assumption of the European regulators introducing IFRS to improve comparability and transparency of financial statements. However, future research should study longer time series for countries other than Germany and different proxies for financial reporting quality. Additionally, further research needs to be done to disentangle the effects of different factors that are contributing to changes in financial reporting quality after the adoption of IFRS. Moreover, by showing that disclosures can have a constraining effect on earnings management, we shed light on the apparent association between these two constructs. This association and how standard setters and regulators can benefit from it could also be a worthwhile area for future research.
References


Short-term and long-term effects of IFRS adoption on disclosure quality and earnings management


Short-term and long-term effects of IFRS adoption on disclosure quality and earnings management


Short-term and long-term effects of IFRS adoption on disclosure quality and earnings management


## Appendix 1

### Variable Definitions

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>$TA$</td>
<td>Total accruals used for the estimation of discretionary accruals. Calculated as change in current assets adjusted for change in cash less change in current liabilities adjusted for change in current portion of long term debt and change in income tax payable less depreciation and amortization expense.</td>
</tr>
<tr>
<td>$A$</td>
<td>Total assets used as denominator for the estimation of discretionary accruals.</td>
</tr>
<tr>
<td>$Δ Sales$</td>
<td>Change in sales used for the estimation of discretionary accruals.</td>
</tr>
<tr>
<td>$Δ Receivables$</td>
<td>Change in receivables used for the estimation of discretionary accruals.</td>
</tr>
<tr>
<td>$DQ$</td>
<td>Disclosure quality score from the best annual report 'beauty contest' of the German business journal manager magazin.</td>
</tr>
<tr>
<td>$</td>
<td>DA</td>
</tr>
<tr>
<td>$Total, Assets$</td>
<td>Total assets scaled by beginning of period market value of equity.</td>
</tr>
<tr>
<td>$Leverage$</td>
<td>Total liabilities divided by beginning of period market value of equity.</td>
</tr>
<tr>
<td>$Sales, growth$</td>
<td>Change in sales divided by beginning of period sales.</td>
</tr>
<tr>
<td>$Cfo$</td>
<td>Cash from operations divided by beginning of period market value of equity.</td>
</tr>
<tr>
<td>$Change, PPE$</td>
<td>Change in property, plant and equipment divided by beginning of period market value of equity.</td>
</tr>
<tr>
<td>$Foreign, sales$</td>
<td>Ratio of foreign sales to total sales.</td>
</tr>
<tr>
<td>$ROA$</td>
<td>Return on assets calculated as net income before extraordinary items plus interest expenses divided by total assets.</td>
</tr>
<tr>
<td>$Close$</td>
<td>Percentage of closely held shares.</td>
</tr>
<tr>
<td>$Beta$</td>
<td>Measure of systematic risk based on how returns co-move with the market.</td>
</tr>
<tr>
<td>$IFRS$</td>
<td>Dummy variable equal to 1 if the financial statements are prepared in accordance with International Financial Reporting Standards (IFRS) and 0 otherwise.</td>
</tr>
<tr>
<td>$Early, IFRS$</td>
<td>Dummy variable equal to 1 if IFRS is applied and the observation belongs to the first four years of the individual firms IFRS reporting and 0 otherwise.</td>
</tr>
<tr>
<td>Variable</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Mature IFRS</td>
<td>Dummy variable equal to 1 if IFRS is applied and the observation does not belong to the first four years of the individual firms IFRS reporting and 0 otherwise.</td>
</tr>
<tr>
<td>US-Listing</td>
<td>Dummy variable equal to 1 if the firm is cross-listed (either directly or OTC) in the United States and 0 otherwise.</td>
</tr>
<tr>
<td>LossD</td>
<td>Dummy variable equal to 1 if the firm encounters losses and 0 otherwise.</td>
</tr>
<tr>
<td>CfoD</td>
<td>Dummy variable equal to 1 if the firm encounters negative operating cash flows and 0 otherwise.</td>
</tr>
<tr>
<td>Big4</td>
<td>Dummy variable equal to 1 if the firm's financial statements are audited by a Big4 auditor (Ernst &amp; Young, PriceWaterhouseCoopers, KPMG, Deloitte Touche Tohmatsu, (Arthur Andersen)) and 0 otherwise.</td>
</tr>
<tr>
<td>New Market</td>
<td>Dummy variable equal to 1 if the firm is listed at the German New Market and 0 otherwise.</td>
</tr>
<tr>
<td>International</td>
<td>Dummy variable equal to 1 if the financial statements are prepared in accordance with International Financial Reporting Standards (IFRS) or US GAAP and 0 otherwise.</td>
</tr>
<tr>
<td>Early International</td>
<td>Dummy variable equal to 1 if IFRS or US GAAP is applied and the observation belongs to the first four years of the individual firms IFRS/US GAAP reporting and 0 otherwise.</td>
</tr>
<tr>
<td>Mature International</td>
<td>Dummy variable equal to 1 if IFRS or US GAAP is applied and the observation does not belong to the first four years of the individual firms IFRS/US GAAP reporting and 0 otherwise.</td>
</tr>
<tr>
<td>PM/ATO</td>
<td>Earnings management diagnostic based on profit margin and asset turnover (Jansen et al., 2012)</td>
</tr>
</tbody>
</table>