Inside the Black Box of Present Value Measurements after IFRS

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What Shapes Management Judgement and Discretion?

Keywords

IFRS, present value measurements, discount rates, judgement, discretion, auditor-client negotiations, third-party specialists

Abstract

Present value measurements (either for estimating entity-based or market-based current values like the Value in Use or internally generated Fair Values) play a key role in financial statements after IFRS as significant financial positions – such as goodwill, most intangibles, many financial instruments, provisions, or defined benefit obligations – are determined by these techniques. While those values based on "management's best estimate" theoretically enrich reporting with private knowledge which is a priori relevant for investors, they imply more than other accounting values uncertainty, subjectivity and complexity and allow substantive discretion potentially diminishing their reliabilty. Prior literature therefore emphasises that their assumed theoretical relevance depends on the neutral and unbiased incorporation of private information and that consequently the warranty of objectivity throughout the valuation process is crucial. This shifts the attention towards the construction process of these accounting measurements. In this connection, the technical complexity of the valuation task is mirrored by a likewise complex structure of actors (in particular management, auditors and third-party specialists) respectively their interplay. I provide interview-based insights how the multi-personal and partly reciprocal process translate into judgement decisions and thereby impacts the weighing of relevance and reliability as the key features of decision usefulness – the purpose of the IFRS. Hence, my study adds to existing literature as it consistently adopts a conceptual view by focusing on the qualitative characteristics of the ultimate values while particularly considering the interplay of auditors and third-party specialists.

1. Introduction

From an economic perspective, financial reporting is a key means of mitigating information asymmetry by providing information about firms' current performance and future prospects to outsiders, particularly capital providers (Wagenhofer, 2004). When focusing on the “ex-ante or valuation role” of financial accounting, which is to assess future cashflows of potential investments, prospective information is especially crucial to overcome the “lemons problem” (Beyer et al., 2010, Akerlof, 1970).

Against this backdrop, the clear alignment of the International Financial Reporting Standards (IFRS) with the valuation role, which is manifested in its commitment to supplying capital providers with useful information for their economic decisions, consequently fosters the incorporation of forward-looking information about long-term value drivers that are a priori highly relevant for financial statement users (e.g. Beretta & Bozzolan, 2008).

On the measurement level of financial reporting, this information is particularly captured by current values determined by present value measurement techniques which encompass future cash flows and a consistent discount rate for single assets or liabilities. By not half-heartedly limiting forward-looking, cash flow-related information to disclosures in the notes, the IFRS demand or allow measurements, requiring such techniques at a comparatively large scale. Correspondingly, the mixed measurement concept of the IFRS incorporates historical cost measures, but also current value measures like the Fair Value, the Value in Use (for assets) resp. the Fulfilment Value (for liabilities) and the Current Cost.[1] Out of these current values the entity-specific concepts Value in Use (pertinent for impairments of assets after IAS 36) and Fulfilment Value (pertinent for provisions after IAS 37) are determined directly by present value measurements as these values aren’t observable.[2] Additionally, the present value measurement technique serves as an indirect measure for the fair value after IFRS 13, namely whenever market prices aren’t available. In these cases the fair value, which conceptually implies a market perspective, is replicated by present value measurements using the assumptions market participants would use (albeit through

[1] Cf. CF (2018), 6.4 ff.

[2] Both concepts are the dominant measurement concepts when applying IAS 36 and IAS 37. However, the fair value after IFRS 13 can be also pertinent in order to determine the recoverable ammount after IAS 36 and for provisions after IAS 37. Usually, in these cases, using fair value leads to the application of present value measurement techniques in these cases.

management eyes). As the Fair Value after IFRS 13 is allowed or demanded by numerous standards and market prices for many assets and liabilities rarely exist, those “level-3-fair-values” take a significant position within the measurement of assets and liabilities. In sum, present value measurements (either for estimating entity-based or market-based current values) play a key role in financial statements after IFRS and thereby in measuring firms’ equity and - regarding subsequent periods - in ascertaining the comprehensive income as the most significant financial positions – such as goodwill, most intangibles, many financial instruments, provisions, or defined benefit obligations – are determined by these techniques.

Apart from the different value concepts and corresponding valuation perspectives stated above, present value measurements require multiple forward-looking inputs like for example future growth and inflation rates or estimates of risk premia which setting also usually isn’t unambiguous. Correspondingly, these measurements are not merely characterised by a high level of complexity but also imply significant estimation uncertainty. The latter can especially be deemed as a key feature of present value measurements. This uncertainty further naturally involves “management’s best estimates” from either a market- or entity-based view, and thereby conveys private respectively confidential information to firm outsiders (Andreicovici, Jeny & Lui, 2020; Barth, 2007).

From a theoretical perspective, incorporating such forward-looking information “through the eyes of the management” in financial statements augments the relevance of the data for market participants by enriching reporting with new, original private knowledge. Generally, the revealing of confidential information reduces information asymmetry (Diamond, 1985; Verrecchia, 2001) and should reduce the “noise” of outsiders’ estimates, solely relying on other publicly available information (Barth, 2007).

However, a potential downside of relying on managers’ estimates is that they could exploit their information advantage for personal benefit, for example to increase personal compensation, instead of arriving at a lower level of ex-post information asymmetry (Landsman, 2007; Barth, 2007, Kothari/Rammanna/Skinner, 2013). Considering that in the case of present value measurement techniques, this problem is exacerbated as firms can select discretionary out of a notable range of values for nearly all inputs and ultimate values are ‘hypersensitive’ to only slight alterations of single inputs and accordingly management of earnings or other pertinent ratios is highly attractive (Christensen/Glover & Wood, 2012) incorporating such types of measurements in financial statements tightens the inherent tension between the two primary requirements of decision usefulness: relevance and faithful presentation (Laux & Leuz, 2009).

Prior literature reflects this tension. The rich literature about fair value measurement provides mixed evidence regarding the value relevance of internally generated fair values (level 3 fair values) which are based on present value measurements. While a number of studies confirm the value relevance of level-3-fair-values but point out that they are discounted relative to level-2 or -1-fair-values (Kolev, 2008; Song, Thomas & Yi, 2010; Goh/Li/Ng & Yong, 2015), other studies suggest that they are of similar (Lawrence, Siriviriyakul & Sloan, 2016) or even superior (Altamuro & Zhang, 2013) value relevance. Some papers demonstrate that an impaired pricing can be theoretically (Lambert, Leuz & Verrechia, 2007) and empirically (Riedl & Serafeim (2011) attributed to a higher information risk associated with measurements mainly based due to unobservable inputs. Although not merely intentional bias but also - due to the inherent uncertainty and complexity of the valuation task - unintentional management errors can cause a lower accounting reliability (Maines & Wahlen, 2006), further research highlights that bolstering objectivity and thereby limiting management's scope of discretion by for example stronger corporate governance mechanisms (Song, Thomas & Yi, 2010) or external appraisers (Chung, Goh, Ng & Yong, 2017) attenuates information risk and discounts in market pricing specifically of internally generated level-3-fair values. Supplementary, Dietrich, Harris & Muller (2000) find that fair value estimates appraised by external specialists and audited by Big 6 auditors are less biased as they significantly better proxy selling prices. In a similar vein, the value relevance of goodwill accounting has been confirmed by a remarkable body of work (e.g. Lee, 2010; Li et al., 2011) and complemented by empirical studies establishing associations between goodwill impairment decisions and managerial incentives (e.g. Ramanna & Watts, 2012) likewise partly indicating that opportunism is impaired when management's discretion is limited, for example in high enforcement environments or by monitoring (whether by institutional investors or in a delegated way by third-party specialists (Glaum, Landsman & Wyrwa, 2018; Zhang & Zhang, 2017; Gietzmann & Wang, 2019).

This outline emphasises that the assumed sufficient or even superior theoretical relevance of present value measurements depends on the neutral and unbiased incorporation of management's private knowledge (Landsman, 2007) and that consequently the warranty of objectivity throughout the valuation process crucial. This shifts the attention towards the implementation of financial accounting. Although this is a general issue, it culminates specifically regarding present value measurement for fair values and other estimates (FVOE) for several reasons. As mentioned before, present value measurements are more than other accounting values subject to uncertainty, subjectivity and complexity (Cannon & Bedard, 2017; Christensen, Glover & Wood, 2012). In particular, the technical complexity of the valuation task conditions its distributive delegation why constructing present value measurements are a 'network' affair of firms, valuation experts and auditors (Huikku/Mouritsen & Silvola, 2017). Correspondingly, the complexity of the valuation task is mirrored by a likewise complex structure of actors respectively their interplay. For exploring the practical implementation issue in such a multi-personal structure, field studies represent the rational choice to address relating "*how*" and "*why*" questions (Cooper & Morgan, 2008). Qualitative interviews are particularly convenient to uncover complex structures of contextual factors and cognitive frames distilling into the processes. Even though rare work (Barker & Schulte, 2017; Huikku/Mouritsen & Silvola, 2017) provides valuable case-based insights about the pertinent actors as well the practical procedures and sheds light on how involved decision makers deal with the reliability issue there is a lack of research which explores how the multi-personal and partly reciprocal process translate into judgement decisions and thereby impacts the weighing of relevance and reliability. Furthermore, to the best of my knowledge there is no study in this field which comprehensively traces the interplay of firms' accountants, valuation specialists and auditors and potential negotiations between these actors. Even though their simultaneous engagement is widely documented most studies relating to the construction of complex estimates concentrate on only either third-party specialists or auditors besides firms. Albeit showing the relevance of these actor groups their interacting seems to be underexplored. Taken together, the following questions shall navigate through the study:

RQ_1: How does the interplay of involved decision makers translate into judgement properties?

RQ2: How do these judgement properties impact the ratio between relevance and reliability as the key features of decision usefulness?

By contributing to these questions, my interview-based field study ties and expands existing literature as a consistently conceptual and more comprehensive view is adopted. Moreover, it adds to the research field by integrating the rich audit research literature, in particularly relating to auditor-client research. For this purpose, I conduct a qualitative empirical study which directs the focus to the measurement level and zooms into the "black box" of present value measurement constructions. Through retracing the multi-personal decision-making process at a granular level for specific discretionary scopes, a deduction basis for general conclusions is to be created.

This paper proceeds as follows. Section two supplies a review of relevant literature which serves as an evidence-based starting point for the interview framework and the sample composition. Section three highlights the contribution of the study. The methodology and the data collection are described in section four. In section five, I present preliminary findings. Finally, the last section offers a glance on further extensions.

2. Relevant strands of literature

2.1 Reliability of present value measurements and their inputs

Reliability and in the terminology of the IASB's Conceptual Framework "Faithful representation", means that information is complete, neutral and free from error.[3] Especially with regard to the requirement of neutrality, present value measurement techniques are often seen critically, since their complex application naturally requires judgments regarding multiple parameters and thereby offers a considerable scope of discretion which is hardly transparent for statement users.

Whereas in terms of reliability mostly the estimation of the cash-flows is viewed as the discretionary part within these calculations, the modelling of the discount rate is often considered as relatively objective and unambiguous because of its market-based derivation (e.g. Andreicovici, Jeny & Lui., 2020). At a second glance, however, this is not the case and as shown by the fact that the IASB addressed the discount issue with

[3] Cf. CF (March 2018), 2.13.

a research project ("discount rates project"), it is by no means trivial.[4] The results of the IASB project highlight that concerning discount rate construction, there are considerable inconsistencies between the different standards requiring present value measurement techniques and that unclear measurement objectives and a lack of detailed specifications, in particular, induce diversity in practice.[5] Moreover – even if the requirements were clear – in valuation theory, it is undisputed that a purposeful adjustment is easily feasible in order to meet desired valuation goals. Against this backdrop, for accounting issues, a target-oriented adaption of discount rates represents an effective accounting tool, especially since discount rates cause a leverage effect, that is, little variation of any component of the discount rate may significantly impact present values (e.g. Carlin & Finch, 2008).

Anecdotal evidence supports these concerns. For instance, it has been shown that Canadian oil, gas and mining firms opportunistically executed the scope of discretion referring to discount rate construction (Schneider, Michelon & Mayer, 2017). Related to this, large German electric supply companies – which recently had to defer huge amounts for nuclear disposal obligations – underestimated their provisions by approximately 39% using a discount rate that – according to predominant opinion – is not in line with IAS 37 (Lenz & Pfautz, 2017). Regarding goodwill accounting, topic-centred research indicates a broad spectrum of diversity in practice (KPMG, 2019) referring to the amount and composition of discount rates and suggests that discount rates are often used strategically (Carlin & Finch, 2008). Against this backdrop, both the forecasts – which represent the numerator in the present value calculus – as well as the discount rate – which represent the denominator – are highly dependent on discretionary judgments.

2.2 Construction of complex accounting estimates

Moreover, my study builds on the small branch of literature which is dedicated to the construction process of accounting numbers and especially to the present value measurement issue. In recent years two key studies in this spirit were published. Barker & Schulte (2017) provide interview-based evidence of how preparers deal with the challenge to construct "level-3-fair-values" in line with the market view paradigm

[4] For further information about the IASB "discount rates project": https://www.ifrs.org/projects/2019/discount-rates/#about.

[5] CF. IASB Staff Paper, Agenda Ref. 17 A (March 2017), para. 14 and 44.

required under IFRS 13. They reveal crucial challenges that are connected with the valuation process and describe which strategies are used in practice to meet the requirements of IFRS 13. Huikku, Mouritsen & Silvola (2017) focus on calculating goodwill impairment value under IAS 36 and highlight that in this case financial accounting represents a distributed affair that comprises human actors from inside and outside the firm as well as non-human sources (like statistics, forecasts etc.). Moreover, they contribute to the question of how the construction process is assessed in terms of reliability. Given a relative understanding of reliability, their interview-based evidence illuminates that recognisability and impersonality are perceived as crucial aspects of the construct. They identify several strategies for how reliability is increasable in the opinion of prepares as well as of auditors who hold a sort of reciprocal position within the financial construction process.

2.3 Role of audit, third-party specialists and relating determinants

Generally, auditors take a key position within the accounting process. Their task consists in assuring that financial statement faithfully portrays a firm's economic situation and accordingly reporting quality represents a function of audit quality as its reliability increases with higher-quality audits (DeFond & Zhang, 2014). External audits thus shape reporting behaviour (e.g. Fang, Maffet & Zhang, 2015) and financial statements represent joint products of auditors and managers (Antle & Nalebuff, 1991). In this connection, auditor-client negotiations are crucial (Beattie, Fearnley & Hines, 2015) because at that point, audits explicitly shape firms' reporting decisions (Gibbins, Salterio & Webb, 2001). The outcome of these discussions are driven by incentives of auditors, especially litigation and reputation (e.g. Hackenbrack & Nelson, 1996, DeAngelo, 1984), and of auditees, especially agency costs (Jensen & Meckling, 1976).

Regarding the reliability of present value measurements, auditors' significance in adding reliability is amplified due to the high estimation uncertainty, subjectivity and complexity of these values. Theoretical work further finds that highly qualified auditors are able to increase both value relevance and reliability of internally generated fair values (Kronenberger, Kronenberger & Waldner, 2020). However, as the enhanced incorporation of such complex estimates simultaneously augments the task complexity of audits (Bratten et al., 2013), there is growing concern, that by the increased incorporation of this kind of measurements in financial statements, "standardsetting may have outstripped auditors' ability to provide the level and nature of assurance currently required" (Christensen, Glover & Wood, 2012). In accordance, literature indicates that auditors may lack the expertise to assess the adequacy of such complex estimates why they regularly fall back on third-party specialists (Glover, Taylor & Wu, 2017). This evidence is complemented by archival research, which suggests that though highly qualified auditors contribute to reliability, but that the involvement of valuation specialists is more effective (Dietrich, Harris & Muller, 2000). To this backdrop, this study particularly focuses on the interplay of both actor groups and its impact on the key features of ultimate values.

Furthermore, prior research highlights that with regard to the IFRS, the principle-based approach of standardsetting may interact with the outlined potential effects of the actor groups. In particular, research suggests that less precise standards (principle-based standards) may diminish as well aggressive accounting of managers as the auditors' demand for adjustments (Agoglia, Doupnik & Tsakumis, 2011; Nelson, Elliott & Tarpley, 2002).

2.4 Contextual factors of discretion

Diversity in practice and the idiosyncratic exercise of discretion may not always serve opportunistic goals, but may also be an opportunity to incorporate the superior knowledge of the management in financial statements. Moreover, prior literature suggests that multiple other contextual factors inside and outside firms might influence the ultimate reporting practices and might thereby shape underlying discretionary decisions.

To outline some aspects, first, empirical literature provides diverse evidence that market best practices and competitive benchmarking plays an important role concerning financial decisions and reporting choices. For instance, a peer effect regarding corporate capital structures and financial policies (Leary & Roberts, 2014), CEO compensation (Bizjak, Lemmon & Naveen, 2008), voluntary disclosure decisions (Lin, Mao & Wang, 2018) as well as to accounting decisions and compliance with accounting standards, have been shown, especially when there is a lack of clarity (Kettunen et al., 2019). Second, a stream of literature reveals the influence of management characteristics on corporate and more specifically on accounting decisions. Based on upper echelons theory, various studies have documented evidence of correlations between manager-specific measures and corporate decisions in general. Ge, Matsumoto & Zhang (2011) demonstrate specifically for accounting choices that a CFO's cognitive frame or style impacts discretionary decisions. Brochet & Welch (2018) provide evidence that the functional background of top executives (CEOs and CFOs) is a considerable explanatory factor of financial reporting discretion referring to goodwill impairment decisions. They notably identify valuation expertise and transaction experience as crucial factors. Closely intertwined with these findings, the management can frame accounting decisions indirectly by shaping institutional logic that influences further actors in the accounting departments like chief accountants or team leaders (Oberwallner, Pelger & Sellhorn, 2020). Third, research highlights that complex, calculative accounting decisions are a "networked and distributed" affair (Huikku, Mouritsen & Silvola, 2017), which means that ultimate valuations depend on a coordination process between accountants, auditors and valuation experts. In this respect, conflicts between the different objectives of the persons involved might be a considerable issue. In addition, it is conceivable that intra-firm conflicts between different functions might matter. For instance, some requirements imply a management approach, which means that measures used for internal purposes flow into calculations. While in theory measures for internal and external purposes should be identical, in practice internal measures are often driven by budgeting or incentive motives, whereas accounting numbers are rather aligned with external communication and capital market reactions. Moreover, paying additional attention to the corresponding disclosure, research documents the reciprocal nature of financial reporting communication (Kettunen et al., 2019). In particular, it has been shown that financial statement users (typically represented by analysts) shape voluntary disclosure by posing questions during conference calls and that firms often answer by adapting their official reports in subsequent years (e.g. Matsumoto, Pronk & Roelofsen, 2011; Kettunen et al., 2019).

This non-exhaustive overview points out that complex accounting practices are potentially driven by multiple contextual factors and that vital dynamics exist, due to the numerous actors involved.

3. Contribution

The study extends prior research on complex accounting respectively valuation judgments in several ways.

First, as already mentioned, the study aims to aid to a more holistic and systematic picture of decision processes and mechanisms relevant for the examined issues – and in general – of the translation of standard requirements in accounting practices (Huikku, Mouritsen & Silvola, 2017). Besides this overall contribution, the qualitative approach can complement secondly certain quantitative empirical findings which highlight several contextual drivers of accounting decisions and judgment. While most studies only focus on certain aspects, there is a lack of research trying to attain a more comprehensive understanding of the processes associated with the construction of present value measurements. In particular, little is known about how the different drivers are interlocked in practice, which aspects possibly dominate under which conditions and how personal characteristics of decision-makers potentially flow into the dynamic processes. For instance, concerning the framing function of manager characteristics, most studies don't provide further insights into the determinants of manager style differences for methodological reasons (Ge, Matsumoto & Zhang (2011), others pick specific aspects of all conceivable aspects (Brochet & Welch, 2018). By approaching the "style"-issue with questions like: "Do you think you are different from other managers on this point?" or "What aspects have you personally brought to the process and why?" the "black box" of determinants of idiosyncratic manager styles shaping accounting processes shall be opened. For this purpose, the sample of interviewees comprises CFOs, the top managers who have the most direct impact on accounting decisions (Ge, Matsumoto & Zhang, 2011). Regarding the mentioned distributed and reciprocal processes the group of interviewees will further comprise decision-makers from different hierarchy levels (CFOs, CAOs [Chief Accountant Officer], and further team members) for each firm and outside actors like valuation experts and auditors. This sample composition shall enable the shedding light on the overall interplay and potential external and internal conflicts.

Third, my study builds on and enhances the small branch of literature which is dedicated to the construction process of accounting numbers and especially to the present value measurement issue. I contribute specifically to this study by not merely focusing on reliability, but trying to figure out more about in what way the network affair influences both reliability as well as relevance. I assess both criteria as follows: Whereas reliability is proxied by the Framework definition (complete, neutral and free from error), I capture relevance by the basic possibility to incorporate the management perspective which reflects private knowledge. Moreover, as my first interview evidence highlighted the catalyst role of related auditor-client negotiation in this context, I aim to use the lens of negotiation theory to organise the ultimate findings. A particular extension is further to include the interaction between auditors and third-party specialists into the analysis.

Moreover, as the introduced studies mainly focus on the cash flow forecasts, there is a lack of in-depth investigation of the discount rates issue. Though the study of Huikku, Mouritsen & Silvola (2017) comprises a section about the discount rate estimation under IFRS 36, my study shall broaden and deepen their insights. In order to broaden the scope, all main standards under IFRS (IAS 36, IFRS 13, IAS 19, IAS 37) requiring present value measurement techniques are included. The cross-standard consideration enables the gathering of evidence of more generalisable patterns which seem to be characteristic for the translation of theoretic measurement objectives into valuations. In order to deepen the insights especially the discretionary judgment issue of the process is focused. Besides the identification of determinants shaping discretion, the study shall contribute to the open question of whether or to what extent the dealing with discretion in the investigated cases can be interpreted as an expression of a professional judgment or rather, as an expression of opportunistic influences, industry standards or similar framing conditions (Sridhar & Dye, 2008). Although the study focuses on the measurement aspect, one question section addresses the corresponding disclosure. Accordingly, the interviews shall shed light on the underlying reasons for the quantity and the quality of the related disclosure and a potential reciprocal relationship of accounting figures and disclosure will be addressed. A relevant topic which is further explicitly considered in this context is the provision of sensitivity analysis.

4. Methodology and data

The motivation of this study is, firstly, to have a closer look at the practical implementation of present value measurements under IFRS and secondly, to examine the multi-personal process which ultimately defines the corresponding judgment of discretion through the lens of negotiation theory. In order to gain such in-depth insights into the “black box” of those complex accounting judgments a fieldwork design was chosen. This approach generally enables the uncovering of proprietary knowledge as it builds on close interaction with the decision-makers offering a glance at practice settings and thereby on the evolutionary processes behind the curtain of accounting numbers (Bloomfeld, Nelson & Soltes, 2016). Hence, this methodological approach is particularly suitable for zooming into the hidden world of accounting judgements for present value measurements.

I draw on personal interviews with relevant decision-makers involved in the processes in question. The semi-structured, open-ended questions of the interview framework address in a granular way the scopes of discretion, namely general modelling alternatives as well as the concrete judgments within the estimations of certain parameters and corresponding disclosure decisions. Moreover, the question guide (Appendix 1) covers sections about the interplay of intra-firm functions as well as about coordination processes with external actors, especially valuation experts and auditors. Further sections address the roles of personal styles of decision makers, peer effects and reciprocal communication with users such analysts. All sections are substantiated by potential sub-questions. The questionnaire has been tested and adapted by several pre-interviews. Throughout the interview collection the guide might be continuously slightly adjusted to integrate further relevant topics raised by the interviewees (e.g. Brühne & Schanz, 2018).

With regard to the distributed and reciprocal processes related to complex accounting constructions the sample of interviewees shall comprise preparers of different hierarchy levels and auditors. Additionally, the sample is complemented by external valuation consultants because they can be attributed to the extended circle of preparers (Huikku, Mouritsen & Silvola, 2017). These consultants are mainly represented by high-level valuation experts of the Big 4 and supplemented by other high-profile experts of other audit and valuation firms. Regarding the preparers in the classic sense, the interviewees are relevant decision makers of German companies listed in the DAX. As the latter one is the most important German index with the highest level of disclosure requirements and public attention (e.g. analyst or media coverage), the companies included in the sample have a comparatively sophisticated accounting and audit quality. This is a crucial assumption for identifying the taxonomic determinants and drivers of the judgment processes rather than unintentionally capturing general factors (e.g. size or index level) shaping the quality of accounting. In total, at least 25 interviews are planned. Interview partners are basically required by both personal contacts and cold-emailing, whereas the circle is extended by snowball sampling (Georgiou & Mantzari, 2021). The latter is most effective in terms in matters of spotting and getting access to key decision makers. Although this way of sampling requires significantly more time, it additionally delivers in most cases interviewees who have more specialist knowledge and/or are more able to assess and describe the complex personal interplay within the reporting traces.

So far, I have conducted and carefully analysed fifteen interviews. A considerable number of further interviews are already planned. Currently, my actual sample is compiled as shown in Appendix 2.

5. Findings

5.1 The valuation process: distribution of decisions

In line with prior literature (especially Huikku, Mouritsen & Silvola, 2017) the evidence collected emphasizes that constructing complex accounting measurements, especially present value measurements, is widely distributed, which means that a cooperative interplay of different functions and decision-makers is required. In my preliminary sample, differences regarding the localization and allocation of specific calculation steps within the companies can be observed, but an overall chain of functions and persons involved is identifiable. With this study, this chain is not mapped for every single firm, but at least for the entire cohort of the sample firms (see section 3).

When considering this chain, a basic question is whether and to which extent external valuation experts are involved in the process. In this regard, the insights so far point out, that for example in the case of large and complex[6] transactions even the complete measurement process (related to the purchase price allocation) is regularly outsourced to external valuation experts (Big4, Second Tiers or other valuation firms). This might be due to short term limited "*personnel and specialistic resources*" (Firm Expert, M&A Accounting Policies, C1), but moreover this also seems to be relevant in order to increase the trustworthiness of the valuations and and for a more powerful justification of the own position:

"With large acquisitions, you don't do it yourself, but have an external consultant who does it, if only because I look much better to my auditor - in a large acquisition - if I can say: I have an expert opinion here." (Chief Accountant Officer, A1)

In cases when accounting measurements are mainly constructed in-house, certain parameters may be delivered by external experts. Regarding the significant issue of

[6] For example legally complex transactions like carve-outs (Firm Expert, M&A Accounting Policies, C1).

goodwill impairment testing, for example several inputs for discount rates are often „*delivered by a Big4*“ (e.g. Chief Accountant Officer, A1/Head of Valuation, B1).

Beyond this general distribution of the process between in-house calculation and outsourcing there is considerable heterogeneity regarding the engaged firm departments. For example in some firms there is a corporate planning department where forecasts are made based on the reports of the different business units, whereas in other firms different business units may be associated with decentralized planning departments. Regarding the discount rates, they are often delivered completely or partly by external consultants (see above) or they may be centrally constructed (for each business unit) on by corporate level, for example by a corporate valuation department or from a valuation team within the corporate accounting policy unit. In this context, the involvement of a separate, powerful and highly-expert valuation department/unit can possibly influence the proportion of in-house engagement (Head of Valuation, B1/Firm Expert, M&A Accounting Policies, C1).

Moreover, there are differences regarding the question of where building blocks of calculations, for example for the impairment tests, flow together. In certain cases, the tests are performed on the business unit level, in other cases they are performed on a corporate level, whereas this may be in the planning and/or the valuation department and/or in the accounting department directly.

This central calculation process, in which partly or completely external consultants are involved, is procedurally framed on one side by communication with management, in particular, the CFO and on the other side by the audit process. Against this backdrop, the next section illuminates the roles and the interplay of the different actors concerning the judgmental decisions when constructing present value measurements.

5.2 Present value measurements as joint products

As stated above, the complex calculation process of present value measurements is reflected by an equally complex distribution of the valuation task. First, this broad allocation of valuation tasks requires a smooth interplay of the involved functions within the firms:

”So the most important stakeholders are the accounting colleagues. Another important stakeholder is for example our strategy department, which deals with assumptions, i.e. when we calculate company values, we need certain assumptions for planning (like inflation rates,

labor costs, certain electricity prices, CO_2 prices). These assumptions are determined by our strategy department and are of course also included in the goodwill impairment test.“ (Head of Valuation, B1)

Second, the insights highlight that this distributed process is augmented by the guidance and monitoring on the corporate level:

„*Regarding the goodwill impairment test, we see ourselves as an internal control system, i.e. we challenge the units very tough because we want to have valuations that are in line with the market, so we always do plausibility checks and we also look at the units in comparison: what are the assumptions and then we ask: ‘Why do they differ?‘ And we always demand explanations in these cases*.“ (Head of Valuation, B1)

“*What is done then, is that we demand the business units to fill this test (we supply a uniform template). By doing that, they provide us their 5-year plan, their assumptions for revenue growth and the terminal value growth rate. Regarding the latter, we provide an upper limit, in this asen we say: ‘Do not go beyond the upper limit, within that upper limit please think about what is adequate for your business*.’” (Fim Expert, M&A Accounting Policies, C1)

Third, as companies regularly hire external experts for complex transactions or the calculation of other valuation inputs the teamwork usually goes beyond company boundaries, because the external experts aren’t able to prepare their valuations independently, but need detailed input from the company side:

“*Of course there are things that have to come from the company, e.g. cost synergies (‘What do you plan? - Are you going to cut out the entire administrative area or are you going to leave it?’), so of course they always need input - both from the buyer and the purchased company*.“ (Chief Accounting Officer, A1)

This collaboration involves on the one hand multiple staff members of the company (“*There are a lot of different people involved.*”, Chief Accounting Officer, A1) and is on the other hand described as an iterative and reciprocal process:

“*It's not that the consultant sits down in a dark room and prepares something and then comes back and gets feedback, it's very iterative: they make a suggestion, they ask for it and say: ‘Listen, how do you want this, the experience values look like this, should we take them or do you say there are reasons not to take them?’*” (Chief Accounting Officer, A1)

Taken together, the valuation outcomes at this point are seen as joint products between different firm functions and the external experts often involved. Furthermore, the auditor is regularly already integrated into the process at this stage:

"*In the final analysis, this is something joint, in part also with the auditor. Because if these are material points, then you also go to the auditor quite early*." (Chief Accounting Officer, A1)

"I differentiate between intra-firm stakeholders and those who come after, that would be the auditors: we also have very close coordination with them on how the process actually works. And we always have a kick-off event where we discuss the entire process." (Head of Valuation, B1)

This insight is very important because it contradicts the usual idea, which is also represented in literature, that the company sets up and the auditor only audits at the end (see for example Earley, Hoffmann &Joe, 2008). Even if the company certainly does "first" steps", the process is in reality much more overlapping.

Hence, this upstream involvement of the auditor is meaningful regarding the exercise of discretion. So the auditor's role obviously isn't limited to testifying. Actually, he has a significant part in shaping discretionary estimates:

"*This is not necessarily downstream. In other words, the illusion that an expert opinion is drawn up and then the auditor comes in and checks everything, that doesn't work like that in practice. When exercising discretion, all thoughts are thrown into a context, i.e. the consultant, the company and the auditor then sit at one table and if the auditor says: 'I can't go along with that.' (...) Then it will usually be the case that a corresponding adjustment is made in the expert opinion.*" (Big4 Manager, Enforcement Expert, Z2)

The involvement of the auditor is likewise perceived to be iterative and reciprocal, but moreover, often induces serious negotiations:

"*It starts with the auditor looking at it and saying: 'Wow, that's honestly a bit too much for me.' Then he first asks for more documentation, then you write a memo about it, for example. The memo goes back to the auditor, the auditor in turn says: "I need something more.' It goes back and forth again and the auditor still says: 'I'm sorry, I can't say yes to that.' And then this escalates to the next level*." (Chief Accounting Officer, A1)

In this connection, between the auditor side and the client side (which may comprise external valuation experts) discussions concerning alternative valuation methods, assumptions and ultimately amounts usually take place. These working-level meetings are held whenever in the process disagreements between the persons involved arise. If no agreement is found at this level, higher levels may be involved: on the auditor side the partner and on the client side the Head of Valuation, the Chief Accounting Officer or ultimately the CFO. The involvement of higher levels may not necessarily indicate a higher escalation stage:

”*That can be the manager of the team, that they try it first, before it ends up with me and the partner; but it is also possible, that if I have my regular jour fix with the partner two days later, I won't wait until they discuss it further. If I'll have him sitting here tomorrow anyway, then I'll do it tomorrow or even the partner says: ’Listen, I've heard that our people are battling, let's see if we two can't get it over the finish line now‘*.“ (Chief Accounting Officer, A1)

So there is no fixed template regarding the involved levels – nevertheless the materiality of the issue is crucial regarding the potential involvement of the top management. When asked about the level on the company side in case of disputed assumptions that may induce a goodwill impairment the company tries to prevent, a Big4 valuation expert who regularly supports auditor teams as a reviewer stated: “*Then certainly at the top*.” (Partner, Valuation, Z1).

In addition to the possible involvement of higher hierarchical levels up to top management, the usual and possible temporal scope of such negotiations also emphasizes their relevance in the evaluation process:

“*It may take several rounds*.“ (Head of Valuation, B1)

„*It could be anything from several weeks down to two hours*.“ (Chief Accounting Officer, A1)

Considering this overall process, a first finding is, that the construction of complex present value measurements induce an equally complex calculation process which is significantly driven by the following characteristics. First, it is distributed within the companies and across their boundaries (as third-party specialists are usually involved). Second it is reciprocal as well as iterative and third, and this is crucial, it is a product of negotiation with the auditor side which is in turn driven by expertise and enforcement experience. Regarding the valuation outcomes this highlights that these complex measurements are joint products between the auditor and the client-side including external consultants.

The last aspect indicates that - contrary to some literature views who oppose present value measurements with the argument that, when used for accounting purposes, in contrast to company valuation the corrective of negotiation is missing – a similar calibrating negotiation process takes place. Consequently, the question of how this process affects the two conflicting ingredients of decision usefulness – namely relevance and faithful representation (which will be used in the following with the term “reliability” interchangeable) is raised. In light of this, in the next section I zoom into the negotiation process and have a closer look at how both sides deal within this process and what this means for the valuation outcome regarding the two features.

5.3 Shaping of judgment and discretion – a negotiation affair

Within this iterative and reciprocal process the negotiation between auditors and clients plays a significant role regarding the exercise of discretion because on the one hand, the negotiation process determines the limitation of discretionary leeway and can thus serve the reliability feature of the accounting numbers. On the other hand, it is crucial that companies are able to bring their better knowledge into the accounting numbers and thereby making them more relevant to investors – while ensuring the reliability.

By qualitatively capturing these two poles I will zoom into the different sub-processes through the eyes of involved actor groups. In particular, I thereby proxy the reliabilty feature qualitatively with influences that are either driven by external evidence or by an impinging impact of the audit and enforcement function as well as with its associated feedback through other channels (like the anticipation of audit opinions by consultants). In contrast, I proxy the relevance feature by the extent to which management perspectives are enforceable by firms. The underlying rationale is that - although the Conceptual Framework unfortunately doesn’t define how much fulfillment of the two criteria is sufficient (Barth, Beaver & Landsman, 2001), the optimal configuration is a sort of equilibrium, in which both properties are as high as possible but no property can be increased without the other being worsened. Additionally, sufficient reliability is a secondary condition as relevance without sufficient reliability isn’t useful.

Fundamentally, in Germany there are several pertinant valuation guidelines (especially regarding to the cost of capital), mainly issued by the IDW[7], which are perceived as "guard rails":

"*Nevertheless, there are also a lot of regulations, a lot of pronouncements, a lot of guard rails, I would say, that you have to adhere to and within which we always move, so that it is always important to us that we are conceptually clean and that we don't exploit too much leeway there*." (Firm Expert, M&A Accounting Policies, C1)

However, the lack of clear standards concerning remaining issues offers room for negotiations and their own argumentations:

"*And as I said, many questions have not yet been answered even in the academic world and therefore you can say: 'Yes, I understood that is your house opinion, but look at this and this and this, there's this opinion and this question is not yet settled.' And so we can put ourselves in this direction and can discuss*." (Head of Valuation, B1)

So, in terms of potential argumentations fundamentally a level playing field between the auditor and the client-side exists which implies an open outcome.

„*There's no template for who has the last call, that the auditor always implements it, that I always get my way, that this certain strategy always prevails, that's really very dependent on the individual case*." (Firm Expert, M&A Accounting Policies, C1)

However, the enforcement of the client position requires serious and plausible argumentation and furthermore temporal effort:

"*There's freedom, there's no right or wrong, there are different ways to do it. It is much more important to document it cleanly once with the auditor and then apply it consistently*." (Head of Valuation, B1)

"*Then, what the audit firms also do is to ask for alternative calculations. So it's not just that we say, "We see it differently," and they say: 'Ah, cool, checked off and done!' That's then two, three or four meetings.*" (Head of Valuation, B1)

Referring to the negotiation outcome which impacts the ultimate valuations, the first evidence stresses that it is less about an approximation in the sense of a (value-based)

[7] The German IDW (Institute of Certified Public Accountants) is the national professional representation of auditors.

compromise, but about the plausibility of methods or assumptions for individual valuation inputs:

"So it's not a bazaar, it's not like I go in with 100, the auditor goes in with 150 and we agree on 130. It's more like: So here's our reasoning, it leads to this number. And the auditor doesn't agree with the reasoning, with the model or the methodology." (Chief Accounting Officer, A1).

This pattern fundamentally contributes to both the relevance and the reliability feature because firms are able to bring in their better knowledge into the valuation process, but they are required to work with assumptions that are plausible and comprehensible.

In addition, it is reported that management discretion is regularly limited by sensitivity analyses required by the auditors. These analyses can clarify that the assumptions made by the companies are not material and are therefore not likely to bias the results of the financial statements:

"*But one can also approximate via scenarios. If I say: 'We see yield parameter of 4% (if these are our yields that we have observed in the past), and the auditors were to come along and say: 'We don't see the 4% in the long term, we see it at 3% percent.', then we also calculate it with 3% and say: 'Look at the values, everything still looks good, but we see the value at 4%.', then the auditor is also reassured, because this is not a critical issue at all*." (Head of Valuation, B1)

This approach is clearly classified as quality assurance of the audit, the value of which is also appreciated by the client. Consequently, we also see here a contribution to the reliability feature, which implies besides faultlessness also neutrality:

"*The auditor is very good at looking at what is sensitive - at looking at what the risks are - and they do that well, it has to be said, and it's also good for us, because we look at the issues again and that often brings us closer*." (Head of Valuation, B1)

This general pattern are also visible when looking more granularly at the derivation of different inputs. For example, regarding the cost of capital the determination of the peer group is noted as key issue in such negotiatians because it allows substantial discretion and implies a significant impact on the amount of the discount rates:

„That is a very central point for the level of the cost of capital. How are the peer group companies selected? How are they then also coordinated with the auditors? That is, that they

also agree that this is an adequate set of peer companies.“ (Firm Expert, M&A Accounting Policies, C1)

This statement demonstrates as well, that firms move between the possibility to influence the peer group set as a central parameter of the discount rates and the limitation of the negotiation scope by the auditor. Further statements illustrate that again the usual procedure contributes to both the relevance and the reliabilty feature as firms are able to enforce their views and bring their better knowledge into the valuation, but in turn only on the basis of a well-founded argumentation:

“*So it happens quite often that a Big4 then proposes other or further peer companies and then we look at them. Sometimes one of the companies suggested by the auditor is accepted, but again only in consultation with the business unit. Often, however, the business then says: 'Yes, at first glance you might think so, but at second glance it's a different business risk that they have there.' So something like that does take place, but it's not the case that the auditor is constantly changing the sets completely, but from time to time the auditor makes exactly these kinds of suggestions*.“ (Firm Expert, M&A Accounting Policies, C1)

Notwithstanding, some statements reveal, that beyond this factual level, there are other contextual drivers who can affect the outcome of the negotiation. First, behavioural patterns might be crucial regarding the effort the parties involved make to enforce their point of view:

“*And of course there are people who say: ‘No, great, then we'll do what they do - done, discussion saved.‘ While others put on their boxing gloves and say: ‚No, I want to go into battle now.‘ You can find that both with auditors and in your own company*.“ (Chief Accounting Officer, A1)

In this regard, personal characteristics, but as well technical expertise and longstanding experience might influence the assertiveness and thereby the bargaining of the involved negotiation partners:

“*So, when I talk to the auditors, I am a very precise person, I really discuss every decimal place (...) and I think it also makes a lot of sense that my person (or my predecessor, who was also very strong professionally), that you are able to go into the conversation with the auditors and explain to them the other point of view and - not to call it ‘boxing through‘ - argue it in such a way that the auditor then also sees it like this.*“ (Head of Valuation, B1)

Apart from that, interviewees highlight the relevance of pragmatism and the ability to deviate from one's own point of view which is possibly related to personal sensitivities:

“*So very often it is also characterized by a bit of pragmatism. (...) Myself I am also not someone who, when he thinks A is right, switches to B easily. So I know that from myself, that one has a hard time with something like that and then sometimes has to give oneself a jolt, that pragmatism is more important here than asserting one's own position*.“ (Chief Accounting Officer, A1)

Last, but not least, the preliminary set of findings, sheds first light on the role of CFOs and raises meaningful consideratons regarding to the illuminated features of decision usefulness. Starting with the relevance feature, the CFOs seem more associated with the „management lens“ due to their superior, mainly strategic knowledge than lower hierachy levels. According to this, their engagement is perceived as potentially pivotal regarding the negotiation outcome:

“*If, for example, you have an M&A transaction in which the CFO was directly involved, then he has insights and usually has an interest in being permanently involved in the deal. And a piece of the puzzle that has been missed so far, which has been simply not available in accounting and then he explains this (...) and then this is also new information which must be mirrored or reprocessed again from the auditor's point of view together with the consultant and therefore it makes sense if the CFO has an involvement in the special transactions*.“ (Big4 Manager, Enforcement Expert, Z2)

In contrast, some statements address incentive-driven negotiation behaviour in certain cases. In this connection, the following statements of a Big4 consultant (Big4 Manager, Enforcement Expert, Z2) point out, that some CFOs seem to battle harder in the case of negative P&L effects.

“*Does this have a P+L effect? Good, then we don't need to talk about it*.“

“*The CFOs are sometimes very crisp in this respect. (...) Then there is definitely more of a struggle, then there is more of a fight (...) because it is not only one's own bonus that is attached from it, but also the accountability ('Do I achieve my plannings with it, do I achieve my forecast with it, do I have to justify myself with it to my other committees as well?')*.“

Furthermore, the personal character is considered to be a driving contextual factor:

“*There are CFOs who don't like to have an impairment, they negotiate even if it's for a very small amount, there are others who say 'Yeah, sure, you're right!* ‘“(Partner, Valuation, Z1).

6 Conclusion and further steps

This study aims to contribute to a more comprehensive understanding of the construction of present value measurements. As highlighted in the previous sections by interview evidence, the negotiation with the auditor is at the center of the distributed construction process involving many functions and decision-makers whereas third-party specialists play a key role. It could also be shown that both key characteristics of decision usefulness - the relevance and the reliability respectively faithful representation - are taken into account regarding the procedures which are used to arrive at an agreement.

However, these findings are preliminary as the sample will be continuously expanded. Regarding to the actor groups, the sample will be particularly supplemented by more auditors and CFOs. As an initial glance at the latter emphasises their significance regarding the key features of decision usefulness, it is essential to have a closer look at their perceptions. Furthermore, as I focus on the negotiation topic, it is necessary to augment the number of interviewed auditors, in particular, auditor partners, as they are the negotiation counterparts oft he CFOs. Moreover, I will add some more valuation experts, who are responsible for the actual valuations, in order to get more granular insights. A considerable number of these interviews will take place the upcoming weeks.

Another point which could be adressed more detailly with further interviews, is the issue, how valuation specialists deal with their double role (albeit in different mandates), as the following statement of an Chief accounting Officer (A1) suggests:

“Of course, the consultants, especially if they are of the Big 4, also have their own auditing experience, but there are also some that you don't recognize when they have the auditor's hat on and the consultant's hat on. So we've already seen things that the consultants have suggested where we've said: ‘Wow, I've just heard something similar, and there your audit colleagues didn't accept this.‘“

Appendix 1: Summarised interview guide

(case-specific: for each actor group and accounting issue)

1. Interviewee and fundamental decision process

- Function, experience and expertise of interviewee
- Localization of calculation process (case specific)
  - Involved decision makers and functions
  - Personal engagement in the calculation processes
  - Collaboration with other functions/decision makers

2. In-depth examination of decision process

- Case specific, granular examination of discretionary decisions
  - Firm decisions
  - Intra-firm econciliation with other engaged functions/decision makers
  - Role of consultants
  - Role of auditors and auditor-client negotiations
  - Role of personal characteristics within the overall coordination process
  - Role of other contextual factors (for example time pressure, peers)

Appendix 2: Interview structure

Actor Group	Code	Duration 1st round	2nd Round
Firms			
1. Chief Accounting Officer (until 2020)	**A1**	1 h 30 min	
2. Head of Valuation	**B1**	1 h 30 min	1 h 50 min
3. Valuation Expert CFO Office	**B2**	planned	
4. Head of Accounting Principles	**B3**	planned	
5. Valuation Expert Accounting Policies	**C1**	1 h 50 min	
6. CFO	**D1**	1 h	planned
8. CFO	**E1**	planned	
9.CFO	**F1**	planned	
Specialists and auditors:			
1. Partner, Valuation	**Z1**	2 h 10 min	
2. Manager, Enforcement Expert	**Z2**	1 h	1 h 50 min
3. Partner, Enforcement Expert	**Z3**	planned	
4. Senior Manager, Valuation	**Z4**	1 h 50 min	
5. Partner, Audit	**Z5**	1 h 11 min	
6. Valuation Expert (independent)	**Z6**	1 h	
7. Partner, Valuation	**Z7**	56 min	1 h 05
8. Partner, Valuation	**Z8**	1 h	
9. Partner, Audit	**Z9**	1 h 10	

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