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The Effect of Pure Audit Firms, Nonprovision of Nonaudit Services to Audit Clients, and a Statutory Fee Schedule on Audit Quality Perceptions

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ABSTRACT: An ongoing debate revolves around instruments for enhancing the audit quality perceptions of financial statements users. Therefore, we investigate two measures that lack empirical evidence, but could theoretically improve perceived audit quality. These are a nonprovision of NAS (either by pure audit firms, or a nonprovision of NAS to audit clients) and a statutory fee schedule. We conduct an experiment with German bankers and nonprofessional investors. The results indicate that a nonprovision of NAS to audit and to all clients (i.e., pure audit case) increases perceived audit quality only if the audit firm sets audit fees internally. Moreover, a statutory fee schedule only increases perceptions of audit quality in the case of a simultaneous provision of audit services and NAS. Consequently, instead of full-banning NAS, an alternative approach would be to introduce a statutory fee schedule that would still permit the provision of NAS while adhering to existing caps.

JEL Classifications: M42; M48.

Keywords: pure audit firms; audit services; nonaudit services; audit fees; statutory fee schedule; perceived audit quality; perceived auditor independence; perceived auditor competence.

I. INTRODUCTION

This study investigates by means of an experiment how the nonprovision of nonaudit services (NAS), either by pure audit firms or nonprovision of NAS to audit clients, and a statutory fee schedule, impact both banker and nonprofessional investor perceptions of audit quality.[1] Auditors provide an opinion on financial reports prepared by the management of a firm, a task that is critical for investor confidence in financial statements and contributes to capital market stability (Newman, Patterson, and Smith 2005). However, this function can only be fulfilled if adequate audit quality is both provided and perceived by the addressees of audited financial statements (Maijoor and Vanstraelen 2012). Decades of academic and regulatory debate have resulted in ongoing changes to audit regulation

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[1] In the following, we use the term "nonprovision of NAS" to subsume both measures (i.e., pure audit firms and a nonprovision of NAS to audit clients).

with the aim of improving both factual and perceived audit quality.[2] Despite these extensive reforms, there is still an ongoing discussion among audit researchers, regulators, the public, and the auditing profession, as to whether these measures are sufficient. This has revived discussions about certain measures that were initially discussed but ultimately abandoned in earlier regulatory reforms.[3] Recent accounting scandals and auditor failures have fueled these debates (e.g., Carillion and British Home Stores in the United Kingdom (U.K.) or Wirecard and Greensill Bank in Germany). A fundamental, well known criticism is related to the revenue generation of audit firms, especially the dominance of revenue from consulting services (Rapoport 2018; Lisic, Myers, Pawlewicz, and Seidel 2019). As a reaction to the recent scandals, regulators in the U.K. and Germany have already further restricted the provision of NAS. For example, the British Financial Reporting Council (FRC) ordered the Big 4 audit firms to break up their operational business into an audit and a consulting unit by June 2024 (Financial Reporting Council 2020). Currently, the British government is also considering an application of operational split to other statutory auditors (U.K. Government Department for Business, Energy and Industrial Strategy 2021). Moreover, the FRC only allows the provision of specific NAS that are directly linked to the audit (Financial Reporting Council 2019). The German legislator has decided to further restrict the provision of specific tax consulting and valuation services to audit clients (FISG 2021). Furthermore, there are also examples of audit firms that have already started their own initiatives (e.g., KPMG U.K.'s initiative to no longer perform consultancy work for its FTSE 350 audit clients (Jolly 2018) or EY's current plan to split its audit and advisory operations worldwide (O'Dwyer 2022)).

These debates could benefit from evidence on the implications of hitherto untested measures that could alleviate (perceived) audit quality threats from the revenue-generation model of audit firms.[4] Experiments can provide such evidence before related measures are implemented. For this study, we choose to experimentally investigate two variants of a nonprovision of NAS (i.e., pure audit firms, or a nonprovision of NAS to audit clients) as a popular measure for changing audit firm revenue generation. However, such a measure would not change the fundamental contractual features of the audit service. Therefore, we add another, less frequently discussed measure to our experiment that would fundamentally alter the revenue generation of audit services: a statutory fee schedule. Currently, audit fees are less regulated and subject to individual negotiations between the auditor and the client. The idea behind such a fee schedule is also in line with current discussions in the U.K., where the aim is to create an independent and transparent fee-setting process (Brydon 2019; U.K. Government Department for Business, Energy and Industrial Strategy 2021).

Theoretically, a nonprovision of NAS may lead to a loss of client-specific knowledge spillovers from NAS to auditing, hence reducing auditor competence. On the other hand, the auditor might be more independent, as the economic bond between auditor and client is reduced (Ratzinger-Sakel and Schönberger 2015). Furthermore, a nonprovision of NAS could lead to a situation in which the auditor's focus is solely on auditing instead of consulting activities that might be more lucrative, due to higher margins and growth rates. Therefore, there might be positive competence effects through a singular focus on auditing (D. Hermanson, H. Hermanson, and S. Hermanson 2020), but independence could suffer because the auditor might be more dependent on (audit only) clients. However, the net effect on audit quality is unclear.

Numerous studies have examined whether NAS affects audit quality in different jurisdictions. Prior research on the association between the provision of NAS and factual audit quality is mixed. Some studies reveal a negative association (e.g., Kinney, Palmrose, and Scholz 2004; Krishnan and Yu 2011; Campa and Donnelly 2016; Lennox 2016), and a few show a positive relationship (e.g., Svanström 2013; Luo 2019), but the small majority fails to find a significant association (e.g., Ashbaugh, LaFond, and Mayhew 2003; Chung and Kallapur 2003; Ruddock, Taylor, and Taylor 2006; Lim and Tan 2008; Knechel and Sharma 2012; Park, Choi, and Cheung 2017; Castillo-Merino, Garcia-Blandon, and Martinez-Blasco 2020). Various studies confirm negative effects on stakeholder perceptions (e.g., Lowe, Geiger, and Pany 1999; Lim and Tan 2008; Meuwissen and Quick 2019). However, this research generally focuses on the extent of NAS provision to audit clients (versus the complete nonprovision of NAS to audit clients and nonaudit clients as examined here) and does not consider pure audit firms. Exceptions include a few experiments that examine dichotomous (yes/no) differences in NAS provision (e.g., Shockley 1981; Gul 1991; Patel and Psaros 2000).

Regarding the theoretical effects of a statutory fee schedule, downside fee pressure could impair auditor competence. Low fees could result in a reduction of audit effort or the allocation of insufficiently qualified staff. Moreover, low

[2] Major reforms in the last few decades include SOX in the United States (U.S.), and Regulation (EU) No. 537/2014 in the European Union (EU).

[3] For example, the European Commission proposed creating pure audit firms within its 2010 Green Paper (European Commission 2010). However, following extensive feedback and discussion process, the EU only implemented a cap on NAS fees and a detailed blacklist of prohibited NAS (Art. 4 and 5 Regulation (EU) No. 537/2014).

[4] We follow DeAngelo (1981b) and conjecture that audit quality perceptions depend on perceived auditor competence and perceived auditor independence. See Section II for details. Note that, in our theoretical discussion, we do not distinguish between factual and perceived audit quality, because the theoretical arguments are identical for both dimensions.

audit fees increase incentives to sell NAS to audit clients, which, in turn, may threaten auditor independence. By contrast, unusually high audit fees could also threaten auditor independence. Clients could use higher fees to literally pay for dependent auditor behavior (e.g., allowing opportunistic earnings management through the client's management (Choi, Kim, and Zang 2010)). Furthermore, abnormally high audit fees increase the economic bond between auditor and client, posing another independence threat. Therefore, a statutory fee schedule that avoids severe under or overpricing of auditing could guard against such competence and independence impairments. We are not aware of prior empirical evidence on the effect of a statutory fee schedule on perceived audit quality.

Overall, we expect a positive effect of a nonprovision of NAS (by either pure audit firms or a nonprovision of NAS to audit clients) on perceived audit quality, mainly through increased auditor independence. However, this effect might be less pronounced when applying a statutory fee schedule because adequate audit fees may reduce the pressure to sell NAS to audit clients, thus reducing the associated independence risks. Furthermore, by applying a statutory fee schedule, participants might not perceive a threat of negative consequences on quality through insufficient audit fees. By contrast, if audit firms can set the audit fee internally, they may reduce audit fees to keep their clients happy, especially if they know they will likely generate more additional revenue from (independence-threatening) NAS of the same client. As a result, the auditor may have to reduce some costs (e.g., by reducing audit effort or by deploying less qualified staff), which could reduce audit quality. Consequently, we hypothesize that the nonprovision of NAS will lead to higher perceived audit quality, compared to the joint provision of audit service and NAS when audit fees are based on internal calculation rates. Conversely, such an effect is less likely when there is a statutory fee schedule.[5]

To test our hypotheses, we conduct a 3×2 between-subjects experiment with two groups of major capital providers and addressees of audited financial statements, namely bankers and nonprofessional investors. We manipulated the business model of the audit firm regarding the provision of NAS on three levels: pure audit firm versus nonprovision of NAS to audit clients versus simultaneous provision of audit services and NAS. The second manipulation is the determination of audit fees: a statutory fee schedule versus internal calculation rates of the audit firm. As dependent variables, we asked participants about their audit quality, auditor independence, and auditor competence perceptions and received 154 useable responses.

Our findings largely align with our expectations and additional analyses reveal the same pattern of results for perceptions of auditor independence and competence. Moreover, results from simple-effects tests prove that a statutory fee schedule leads only to higher perceptions of audit quality when the auditor simultaneously provides audit services and NAS. Therefore, instead of an outright ban on the provision of NAS to audit clients or all clients, an alternative approach would be to introduce a statutory fee schedule. This fee schedule would still permit the provision of NAS while adhering to existing caps.

Our study contributes to the current debate, in the wake of recent accounting scandals, on potential measures affecting the revenue generation of audit firms. To the best of our knowledge, this is the first study to investigate the impact of pure audit firms and a voluntary self-restraint (i.e., nonprovision of NAS to audit clients) on audit quality perceptions. Accordingly, we provide a new perspective on a traditional research area with (so far) ambiguous results. Furthermore, this is also the first study to empirically investigate the effect of a statutory fee schedule on perceived audit quality. We are thus responding to a call from Beck, Fuller, Muriel, and Reid (2013) to investigate new ways for regulation to improve the ability of investors to evaluate auditor independence. A statutory fee schedule would yield additional and detailed insights into audit fee structures. Currently (except for in Korea), only the total amount of audit fees is publicly available to users.[6] Above and beyond that, our study provides insights from two major stakeholder groups (i.e., representatives of equity and debt capital; informed versus less-informed stakeholders). By contrast, prior studies have predominantly used students to proxy for nonprofessional investor perceptions. Finally, we contribute to the overall discussion on further measures to increase audit quality, and the academic discussion on the related advantages and disadvantages.

Our findings should be of practical relevance by offering regulators further measures to change the revenue-generation model of auditors. Furthermore, auditors might benefit from gaining insight into the benefits of self-constraint in NAS provision. Pure audit firms or a nonprovision of NAS to audit clients can increase relevant stakeholders' positive perceptions, and a statutory fee schedule could protect against insufficient audit fees. Members of audit committees can gain insights into whether they should permit or not permit the provision of NAS by the auditor. In addition, a statutory fee schedule could make it easier for audit committees to negotiate appropriate audit fees. Finally,

[5] The EU has introduced a cap on permissible NAS of a maximum of 70 percent of the average of the fees paid in the last three consecutive financial years for the statutory audit of the audited entity, and a detailed list of prohibited NAS (the blacklist) provided to audit clients (Art. 4 and 5 Regulation (EU) No. 537/2014).

[6] In Korea, the disclosure of audit hours is also required in company annual reports (Bae, Choi, and Rho 2016).

our results can also help users of financial statements to acquire a better sense of how to evaluate the provision of NAS. They can also benefit from a statutory fee schedule because it ensures appropriate audit fee levels and avoids over or underpayment.

The remainder of this paper is organized as follows. In the next section, we describe the theoretical background, review the literature, and develop our hypotheses. Section III reports the research design, including the experimental case and task, the variables, and the participants. In Section IV, we present our experimental results. Section V concludes and summarizes the main findings.

II. THEORETICAL BACKGROUND, LITERATURE REVIEW, AND DEVELOPMENT OF THE HYPOTHESES

Audit fees are usually subject to free negotiations between the auditor and the client. Moreover, many auditors bundle other professional services (i.e., NAS) with the statutory audit, to generate higher revenue from an existing audit client. Accordingly, the specific characteristics of the revenue-generation process could be critical determinants of audit quality. However, the audit can only fulfill its function if adequate quality is provided. Audit services are credence goods (Causholli and Knechel 2012), and essential elements of these services are not observable to the addressees of audited financial statements. Hence, it is not sufficient that the auditor provides high factual audit quality; the audit must also be perceived as high by the users of audited financial statements. Taking this into account, DeAngelo (1981b) defines audit quality as the market-assessed joint probability that a given auditor will discover a breach in the accounting system of the client (perceived auditor competence) and report the breach (perceived auditor independence).[7] We maintain this distinction in our discussion of the potential effects of the studied features of audit firm revenue generation below. Although our focus is on quality, competence, and independence perceptions, these same theoretical mechanisms also affect factual audit quality.

Pure Audit Firms and Nonprovision of NAS to Audit Clients

The bundling of audit services and NAS to generate revenue from audit clients has been the subject of substantial academic and regulatory discussions over the last few decades. For example, the European Commission (EC) started intensive reform discussions by issuing its Green Paper after the 2008/2009 global financial crisis (European Commission 2010). It included debates about prohibiting all NAS-provisions to audit and nonaudit clients (i.e., the creation of so-called pure audit firms). The resulting Regulation (EU) No. 537/2014 (2014) prohibited some NAS, combined with a cap on NAS fees for audits of Public Interest Entities (PIEs) at 70 percent of the audit fee (Ratzinger-Sakel and Schönberger 2015). Nonetheless, recent accounting scandals in the U.K. (e.g., Carillion or British Home Stores) and Germany (e.g., Wirecard or Greensill Bank) have revived discussions on the prohibition of all NAS for audit clients, or even the introduction of pure audit firms (e.g., Ford and Marriage 2018; Competition and Markets Authority 2019) and initiated changes in the audit market.

Theoretical arguments on the simultaneous provision of audit services and NAS are ambiguous. If the auditor provides NAS to audit clients, knowledge spillovers can indeed increase audit quality, but also reduce audit production costs (Beck, Frecka, and Solomon 1988), which in turn may increase quasi-rents, and therefore, the economic bond (DeAngelo 1981a). In addition, the simultaneous provision of audit services and NAS increases total fees from one client, which could threaten independence. Beyond economic bonding, auditor independence may be at risk from: a self-review threat (the auditor may overlook or conceal misstatements resulting from NAS); a familiarity threat (NAS create a special bond of trust between client and auditor); and an advocacy threat (IFAC 2021). The net effect of potential competence gains and independence losses on audit quality remains unclear.

The discussed theoretical effects also apply to a nonprovision of NAS to audit clients and pure audit firms. In both cases, there are substantial independence gains. By contrast, their impact on competence is theoretically unclear. On the one hand, competence might suffer because organizational learning from the NAS provision does not take place. This effect is less pronounced in cases of a nonprovision of NAS to audit clients, since the auditor can still generate knowledge spillovers from NAS provision to other clients within the same industry. On the other hand, competence might improve due to a clearer focus on audit services. Such a focus should be stronger in the case of pure audit firms.

Prior research on the effect of NAS provision on factual audit quality and/or auditor independence is mainly based on archival studies. Audit quality cannot be observed directly, and therefore, audit quality proxies are used, such as earnings management (e.g., Lim and Tan 2008; Knechel and Sharma 2012; Eilifsen and Knivsflå 2016; Castillo-Merino et al. 2020), qualified or going concern opinions (e.g., Hope and Langli 2010; Ratzinger-Sakel 2013; Lennox 2016),

[7] Watkins, Hillison, and Morecroft (2004) expand this view with a factual dimension (audit quality in fact, i.e., factual competence and independence).

restatements (e.g., Kinney et al. 2004; Campa and Donnelly 2016; Lennox 2016; Lisic et al. 2019; Castillo-Merino et al. 2020; Beardsley, Imdieke, and Omer 2021), or auditor litigation (e.g., Bajaj, Gunny, and Sarin 2003). Besides these archival studies, only a few experiments have been conducted (e.g., Kowaleski, Mayhew, and Tegeler 2018).[8] The results are inconclusive, with a small majority of the studies finding mixed evidence on the relationship between NAS fees and audit quality in fact.

There are also many studies analyzing the effect of providing NAS on audit quality and/or auditor independence perceptions. These studies are generally based on interviews (e.g., Sawan, Alzeban, and Hamuda 2013), surveys (e.g., Quick and Warming-Rasmussen 2005, 2009; Svanström 2013; Albaqali and Kukreja 2017; van Liempd, Quick, and Warming-Rasmussen 2019), and archival studies, which mainly uses market reactions to disclosed NAS fees (e.g., Mishra, Raghunandan, and Rama 2005; Khurana and Raman 2006; Lim and Tan 2008; Eilifsen and Knivsflå 2013; Campa and Donnelly 2016; Alsadoun, Naiker, Navissi, and Sharma 2018; Lisic et al. 2019).

Also, many experimental studies on the impact of jointly providing audit services and NAS on perceived audit quality and/or auditor independence have been performed (e.g., Gul 1989, 1991; Lindsay 1990, 1992; Agacer and Doupnik 1991; Lowe and Pany 1995; Teoh and Lim 1996; Lowe et al. 1999; Swanger and Chewning 2001; Hill and Booker 2007; Davis and Hollie 2008; Thornton and Shaub 2014; Church and Zhang 2011; Jenkins and Krawczyk 2002; Patel and Psaros 2000; Mauldin 2003; Quick and Warming-Rasmussen 2015; Aschauer and Quick 2018; Meuwissen and Quick 2019). Most of these studies reveal a negative impact on perceptions of audit quality and/or auditor independence.

To sum up, research results on perceptions of audit quality and auditor independence are ambiguous, potentially due to differences in research designs, the analysis of different types of NAS, cultural differences, and the use of different user groups. However, most of the studies reveal an adverse effect of the joint provision of audit services and NAS on perceived audit quality, mainly through a threat to auditor independence.

Statutory Fee Schedule

In most auditing settings around the world, audit fees are subject to individual, free negotiations between the client and the auditor, with only broad regulatory boundaries. For instance, the EU prescribes in Art. 25, Directive 2006/43/EC (2006), that member state regulations shall ensure that audit fees are not influenced or determined by providing additional services and cannot be based on any form of contingency. Some member states (e.g., Belgium, Germany, France, The Netherlands, and Portugal) have additional professional and ethical rules requiring that audit fees be adequately proportionate to the auditing work (European Economic and Social Committee 2013).[9] Slovakia requires a minimum number of hours for the audit, based on the client's total assets. In France, hourly rates are freely negotiable, but the number of hours is determined (within a range) based on the total assets of the audit client (European Economic and Social Committee 2013). In Tunisia, audit fees are fixed, and the scale depends on the client's number of employees, revenue, and assets (Khrouf and Arnold 2018). However, there are no statutory fee schedules. Such a schedule could entail a complete listing of fees for single audit procedures (e.g., fixed amounts, or hourly rates per audit procedure, differentiated by hierarchical levels). The setting process could be subject to an independent state authority. Until 2006, Section 55 of the Public Accountant Act gave German authorities the power to enact a statutory fee schedule. Nevertheless, such a schedule was desired neither by the audit clients nor the profession, nor was it demanded on a broad level, at the time, resulting in abolishing the authorization (BT-Drucksache 16/2858 2006). However, a fee schedule model does exist for auditors of German cooperatives ("Genossenschaften"), cooperative banks ("Genossenschaftsbanken"), and savings banks ("Sparkassen") due to some legal and organizational particularities.[10] Furthermore, statutory fee schedules also already exist for comparable free professions in Germany (e.g., tax advisors, notaries, or lawyers), mainly to protect clients (Peemöller 2012).

Theoretically, a statutory fee schedule could alleviate downside fee pressure, which would result in impairments of audit quality due to auditor resource constraints and lower auditor effort (Hoitash, Markelevich, and Barragato 2007).[11] Low audit fees restrict auditors in executing necessary audit procedures with qualified staff and pressure them

[8] For a critical overview of proxies for audit quality, see DeFond and Zhang (2014).

[9] Another example of a regulatory boundary in Germany: a flat-fee remuneration is only allowed if there is a provision for the audit fee to be increased in the case of unforeseeable events on the client's side, which leads to a considerable increase in the time and effort required (Professional Charter for Professional Accountants in Public Practice 2016).

[10] Cooperatives and cooperative banks must belong to a cooperative auditing federation ("Genossenschaftlicher Prüfungsverband"), which is responsible for the external audit of its members. These federations use fee schedules, which are determined by their supervisory board, to calculate audit fees. This is quite similar for savings banks, which are audited by the auditing division of the Savings Banks and Giro Association ("Prüfungsstelle des Sparkassen- und Giroverbands"), to which the institute relates. For an overview of German banking industry particularities, see Mare and Gramlich (2021) for cooperative banks and Decker (2018) for savings banks.

[11] Practice-oriented literature has also expressed the idea of using a statutory fee schedule to improve auditor resources (Peemöller 2012; Kirchner 2020).

to use more efficient audit procedures (e.g., using Big Data technologies or outsourcing through shared-service centers), which could significantly negatively affect audit quality perceptions or threaten audit quality by way of overstandardization (Knechel, Thomas, and Driskill 2020).[12] Moreover, low audit fees may increase incentives to sell NAS (even to audit clients), which, in turn, may threaten auditor independence. Researchers have expressed strong concerns regarding broad downside fee pressure in recent years (Ettredge, Fuerherm, and Li 2014). Observations of an overall decline in audit fees are exacerbating these concerns (e.g., in the U.S., the PCAOB expressed concerns about audit fee decreases and its effect on audit quality (Cohn 2014)).

Similarly, a statutory fee schedule could alleviate longstanding concerns about potential low-balling for initial audit engagements (DeAngelo 1981a).[13] Furthermore, it could improve audit fee transparency to users of financial statements (Schmitt 2019), potentially making fees a better indicator of auditor effort and, ultimately, of audit quality.[14] Finally, a statutory fee schedule could also alleviate threats to auditor independence from economic bonding, by giving individual clients less leeway to create stronger bonds through comparably high billing rates (i.e., a fee schedule avoids excessive audit fees/audit fee premiums for favors or giving up independence).

In conclusion, a statutory fee schedule is a measure for ensuring adequate audit fees in support of sufficient auditor competence and independence. As audit fees would be calculated equally, auditors no longer compete on price. At the same time, a statutory fee schedule does not reduce incentives to improve audit efficiency, because efficiency gains would still increase the margin. Moreover, the likelihood of insufficient audit quality decreases, because both downside fee pressure and a situation in which the auditor is willing to accept lower audit fees to retain clients for reputational reasons is avoided. The increased transparency could also counteract potential perceived auditor independence threats from stakeholders, which may arise if audit fee differences across comparable client firms are not easily understood. Although a statutory fee schedule primarily protects the auditor, ensuring independence, competence, and ultimately, audit quality, it also protects other stakeholders. Conversely, a statutory fee schedule may impair market competition and the ability of audit firms to charge higher audit fees in extraordinary situations (Khrouf and Arnold 2018). Initial audit engagements, for instance, cause additional startup costs, which are not covered by a fee schedule. In addition, it is questionable whether a state authority has the necessary expertise to set a fee schedule for auditors.

To the best of our knowledge, prior research on a statutory fee schedule is limited to just two surveys, including a fee schedule covering various features of the audit setting. Both studies were conducted in Germany. Meuwissen and Quick (2009) asked supervisory board members to evaluate various measures aimed at increasing auditor independence. Their results show that supervisory board members do not consider a statutory fee schedule an effective measure for strengthening auditor independence. Schmidt (2019) finds that auditors and professional investors, but not bank directors and supervisory board members, consider a statutory fee schedule to be an appropriate measure for enhancing auditor independence. We are not aware of any evidence of the effects of a statutory fee schedule on auditor competence (perceived or factual) or factual independence.

Development of Hypotheses

In line with our theoretical considerations and results from prior research, we expect a positive effect of the nonprovision of NAS (for both pure audit firms and a nonprovision of NAS to audit clients) on perceived audit quality, mainly through a strong effect of increased auditor independence. However, this influence might be less likely when audit fees are based on a statutory fee schedule. Adequate audit fees may reduce auditor needs for cross-subsidization via the sale of NAS with potentially higher margins. The provision of NAS is associated with factual and perceived independence threats. Furthermore, if there is a statutory fee schedule, there is no reason for auditors to reduce audit costs to achieve a lower audit fee. Therefore, participants might not perceive a threat of negative consequences on quality, through insufficient audit fees. By contrast, if the auditor can set the audit fee internally, s/he may reduce audit fees to keep clients happy, especially if the auditor knows that a generation of additional revenue from NAS of the same client is likely. Because of lower audit fees, the auditor may have to reduce some costs (e.g., the number of procedures to be performed or using less qualified staff), which could reduce audit quality. Therefore, in the case of a nonprovision of NAS (either by pure audit firms or a nonprovision of NAS to audit clients), a statutory fee schedule may not be necessary to ensure adequate audit fees. Consequently, we expect positive effects on perceptions of audit quality in the case of a

[12] Although our focus is on perceived audit quality, these arguments are essentially based on the effects on factual audit quality. However, they should also impact participants' audit quality perceptions.

[13] However, recent research questions low-balling practices (e.g., Barua, Lennox, and Raghunandan 2020) or even finds that low-balling does not impair audit quality (e.g., Cho, Kwon, and Krishnan 2021).

[14] As an example of an attempt to increase transparency, the second-tier audit firm, Baker Tilly Germany, announced that it would develop and introduce a standardized audit fee model to create more transparency (Schmitt 2019).

nonprovision of NAS, only when audit fees are determined by the audit firm's internal calculation rates but not by a statutory fee schedule, and state the following interaction hypotheses:

H1: The nonprovision of NAS will lead to higher perceived audit quality compared to the joint provision of audit service and NAS when audit fees are based on internal calculation rates, but not when there is a statutory fee schedule.

H1a: The nonprovision of NAS to audit clients will lead to higher perceived audit quality compared to the joint provision of audit service and NAS when audit fees are based on internal calculation rates, but not when there is a statutory fee schedule.

H1b: The nonprovision of NAS to all clients (i.e., a form of a pure audit firm) will lead to higher perceived audit quality compared to the joint provision of audit service and NAS when audit fees are based on internal calculation rates, but not when there is a statutory fee schedule.

III. RESEARCH DESIGN

Experimental Case and Task

We used a 3 × 2 between-subjects design to test our hypotheses. We therefore manipulated the business model of the audit firm with respect to the (non)provision of NAS (*BUSINESS_MODEL*) and the basis for calculating audit fees (*FEE_BASIS*) (for details, see the subsection on treatment variables). We follow prior research in designing our experimental material (Gul 1991; Libby and Kinney 2000; Kaplan and Mauldin 2008; Aschauer and Quick 2018; Quick and Schmidt 2018). To prevent participants from identifying the research objectives, which might have resulted in biased responses, we provided more information on the fictitious company than prior experiments (e.g., by including information about the client company's management and supervisory board). Participants responded from their perspective as nonprofessional investors or bankers. The case was administered in German using an online survey platform.[15]

After the approval of voluntary participation, the case presented a description of a fictitious publicly traded, medium-sized ceramic goods manufacturer called "JETO AG."[16] Across all treatments, participants received the same brief information about the company (business model, employees, labor agreement, composition of management and supervisory board, and compensation of members). Furthermore, participants received some pre-audit and unpublished key financial figures, including the pre-audit earnings per share (EPS) (€1.16) and pre-audit consolidated financial statement, and were informed that stocks of "JETO AG" are listed on the Frankfurt Stock Exchange. In addition, participants were told that the financial analyst forecasted consensus EPS is about €1.15 (and therefore €0.01 below the pre-audit EPS).

The information contains a section about the audit, where we include our first treatment variable (*BUSINESS_MODEL*) and inform participants that the supervisory board of "JETO AG" has engaged a Big 4 audit firm after its election at the annual general meeting.[17] Participants also received information about the total revenue of the audit firm and, if the audit firm provides NAS, which part relates to audit services and which to NAS. Furthermore, participants were informed that the auditor had been engaged for three periods, that the audit firm had always issued an unqualified opinion, and that there had never been disagreements between the auditor and management. The audit fee subsection, in which we manipulated the second treatment variable (*FEE_BASIS*), informed participants about the audit fee, the underlying calculation basis, and that the fee agreement had been approved by the supervisory board of "JETO AG."

Following this information, the case explained that the auditor discovered a misstatement, which was caused by an excessively optimistic management assessment of the net realizable value of inventories. This information was held constant across all treatments. Participants were informed that the auditor had communicated the revealed misstatement to

[15] To ensure a realistic setting, we used publicly available financial data of an actual company within the same industry as the fictitious case company. Financial data for the engaged audit firm were approximated from average revenue for audit services and NAS of Big 4 audit firms in Germany. We extracted financial data from Big 4 audit firm transparency reports from 2015/2016 to 2017/2018. On average, 18 percent of the turnover relates to audit services, and 82 percent relates to NAS. We asked two researchers with substantial experience in experimental auditing research whether the case was appropriate for testing our hypotheses. Two public accountants from a Big 4 audit firm provided feedback on whether the case was realistic. Additionally, to ensure the understandability of the experimental case and the technical functionality of the online survey tool, we pretested the instrument with two bankers and two nonprofessional investors. As a result, some minor verbal and technical changes were made. An English translation of the original material can be found in Appendix A.

[16] The final materials and procedures were approved by the Ethics Committee of the authors' university, and we ensured a high degree of scientific ethics, including high standards and transparency of participant rights and data protection.

[17] We chose a Big 4 audit firm, as the Big 4 dominate the German audit market for audits of PIEs (Audit Analytics 2020).

the company management and that s/he believes that the measurement of inventories is too high, leading to an overstatement of pre-audit earnings (by €0.06 per share). Furthermore, the complete correction would reduce EPS to €0.05 below the analyst-consensus forecast. Therefore, a situation in which management has an incentive not to correct the discovered misstatement, as falling short of the analysts' forecast, could have significant adverse consequences (Huang, Pereira, and Wang 2017).[18]

After reading the case material, participants were asked to answer questions regarding the dependent variables. They then completed a comprehension and manipulation check, provided some demographic information in a post-experiment questionnaire (see the following two subsections), and could not then return to the case or their assessment.

Dependent Variables

In line with DeAngelo's (1981b) definition of audit quality, we use three dependent variables in this study, namely participant perceptions of audit quality (*QUALITY*), auditor independence (*INDEPENDENCE*), and auditor competence (*COMPETENCE*). We use the same operationalization for all dependent variables as in prior experimental studies (e.g., Libby and Kinney 2000; Kaplan and Mauldin 2008; Quick and Schmidt 2018). To obtain the first dependent variable, participants had to assess the most likely EPS amount "JETO AG" reported in the audited financial statements, by selecting one of seven amounts ranging from €1.10 (audit difference fully corrected) to €1.16 (audit difference uncorrected). A full correction reflects high audit quality, and no modification indicates low audit quality. For the second (third) dependent variable, participants were asked to assess auditor independence (competence) on a seven-point scale anchored by 1—low independence (competence) and 7—high independence (competence).

Treatment Variables, Comprehension and Manipulation Checks, and Demographics

We manipulated the business model of the audit firm (*BUSINESS_MODEL*) regarding the provision of audit services and NAS at three levels: (1) pure audit firm, (2) nonprovision of NAS to audit clients, and (3) simultaneous provision of audit services and NAS within the legal framework (i.e., under the condition of a cap on NAS fees and a detailed blacklist of prohibited NAS).[19] Thereby, we explained the business model concerning the extent of audit services and NAS provision. In the case of pure audit firms and nonprovision of NAS to audit clients, we mentioned that this business model is unlike that of the audit firm's competitors.[20] Moreover, we also mentioned and defined the term "pure audit firm" for that condition. Our experimental setting refers deliberately to a voluntary nonprovision of NAS, as we intended to reflect strategies recently observed in the audit market. We are aware that this setting does not allow us to directly infer the effectiveness of regulatory measures. The basis for calculating audit fees (*FEE_BASIS*) was manipulated at two levels: statutory fee schedule and the internal calculation rates of the audit firm. For the condition where a statutory fee schedule was applied, we mentioned the term "statutory fee schedule," and explained that it determines the hourly rates and the estimated number of hours for each audit procedure (for details, see the side-by-side comparison in the experimental case (Appendix A)). This resulted in six different experimental conditions, and participants were randomly assigned to one of them (see Table 1).

To test participants' comprehension of the case and the treatments, we included one comprehension and two manipulation checks. All questions were asked after the participants had assessed the audit quality, auditor independence, and auditor competence. First, we asked the participants to choose the correct answer (yes/no) to the statement: "If

[18] As prospect theory (Kahneman and Tversky 1979) shows, individuals evaluate changes not by the absolute level, but by their positive or negative deviations from a reference point (e.g., analyst forecasts). If the outcome deviates positively from the reference point, a gain is perceived, resulting in a valuation premium. With a negative deviation, a loss is perceived, resulting in a negative valuation (discount). Such effects could include, e.g., negative stock price reactions (Skinner and Sloan 2002) or reduced management credibility (Bartov, Givoly, and Hayn 2002). See Huang, Pereira, and Wang (2017) for further effects.

[19] In the original experiment, the participants did not get an explanation of "within the legal framework." To address concerns that participants might lack knowledge of the 70 percent cap on NAS fees and the comprehensive blacklist of prohibited NAS fees prescribed in the EU regulation, we conducted two additional experiments with nonprofessional German investors acquired through Prolific (92 usable responses) and German master's students majoring in accounting whom we asked to assume the role of nonprofessional investors (57 usable responses). The results (untabulated) do not indicate that participants' assessments are different when explicitly informed about the NAS fee cap and the detailed blacklist of prohibited NAS fees compared to when they are simply told about the legal framework.

[20] The phrase "unlike its competitors" highlights the voluntary nature of the business model, which might drive participant responses. Although it reflects current market strategies (e.g., KPMG UK's decision not to provide any NAS to FTSE 350 audit clients), a potential concern is that the comparison to competitors rather than the actual design of the business model drives investor perceptions. To alleviate this potential concern, we conducted a follow-up experiment in which we compared each "nonprovision of NAS" condition (pure audit firm versus nonprovision of NAS to audit clients), including the phrase "unlike its competitors," with the two conditions without the phrase "unlike its competitors." This resulted in four experimental cells. We used nonprofessional German investors acquired through Prolific, and received 120 usable responses. We found no significant differences throughout all three dependent variables (untabulated). Therefore, we believe that our results are unlikely to be biased by this particular phrase.

TABLE 1

Descriptive Statistics

Panel A: Number of Participants per Experimental Condition

Experimental Condition	*BUSINESS_MODEL*	*FEE_BASIS*	Number of Participants		
			Group A	**Group B**	**Total**
1	Pure audit firm	Statutory fee schedule	12	13	25
2	Pure audit firm	Audit firm's internal calculation rates	12	13	25
3	Nonprovision of NAS to audit clients	Statutory fee schedule	13	13	26
4	Nonprovision of NAS to audit clients	Audit firm's internal calculation rates	13	13	26
5	Simultaneous provision of audit services and NAS	Statutory fee schedule	11	13	24
6	Simultaneous provision of audit services and NAS	Audit firm's internal calculation rates	14	14	28
Total			75	79	154

Panel B: Demographic Information

			Frequency				
Variable	**n**	**Mean**	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**
AGE	154	3.0000	27	29	30	53	15
GENDER	154	1.1494	131	23	—	—	—
EDUCATION	154	3.2338	8	37	31	67	11
Variable	**n**	**Mean**	**Std. Dev.**	**Min**	**Max**	**Median**	
EXPERT_AUDIT	154	4.0260	1.680	1	7	4	
EXPERT_ACC	154	4.7857	1.508	1	7	5	
TRUST_REPORT	154	4.5649	1.283	1	7	5	
TRUST_AUDIT	154	4.8961	1.354	1	7	5	

Panel A shows the number of participants per experimental condition. Group A: Nonprofessional investors; Group B: Bankers. The simultaneous provision of audit services and NAS is under the condition of a cap on NAS fees and a detailed blacklist of prohibited NAS. Panel B shows the demographic information.

Variable Definitions:
AGE = age of participant (1 = ≤ 30, 2 = 31–40, 3 = 41–50, 4 = 51–60, 5 ≥ 60);
GENDER = gender of participant (1 = male, 2 = female, 3 = neutral);
EDUCATION = level of participant's education (1 = High school (without a university entrance qualification), 2 = High school (with a university entrance qualification), 3 = Bachelor's degree, 4 = Diploma/Master's degree, 5 = Ph.D.);
EXPERT_AUDIT = self-assessment of auditing expertise on a seven-point Likert scale (1—no expertise, 7—very high expertise);
EXPERT_ACC = self-assessment of financial accounting expertise on a seven-point Likert scale (1—no expertise, 7—very high expertise);
TRUST_REPORT = self-assessment of trust in annual reports on a seven-point Likert scale (1—no trust and 7—very high trust); and
TRUST_AUD = self-assessment of trust in statutory audit on a seven-point Likert scale (1—no trust and 7—very high trust).

management fully corrects the misstatement for inventory valuation, EPS will be below the analyst forecast." This question relates to the participants' understanding of managements' incentives to fulfill analyst forecasts. Second, participants indicated whether the audit firm generally provides NAS to its audit clients (yes, within the legal framework; no, it offers only audit services (so-called pure audit firm); no, it offers no NAS to its audit clients). Third, participants were asked on what basis audit fees were calculated (statutory fee schedule versus internal calculation rates of the audit firm). These two questions relate to understanding the treatment variables.

Finally, participants were asked about their age (from a selection of ranges), gender, and educational level. Nonprofessional investors were also asked whether they hold stocks or not. Furthermore, participants had to self-assess their auditing and financial accounting expertise (on seven-point scales anchored by 1—no expertise and 7—very high expertise), and to self-assess their general trust in annual reports prepared by management and in the statutory audit (on seven-point scales anchored by 1—no trust and 7—very high trust).

Participants

Participants were bankers and nonprofessional investors, comprising two significant groups of debt and equity capital providers. We invited participants during spring and summer 2020. To contact bankers, we used a database from the Federal Financial Supervisory Authority ("BaFin = Bundesanstalt für Finanzdienstleistungsaufsicht") to identify all registered German banks (1,384).[21] We then manually collected corporate and retail banker names and email addresses from the bank websites (5,381 contacts) and invited them via email. Nonprofessional investors were contacted in various ways. First, we used the website of the Federal Association of Stock Exchange Associations at German Universities ("Bundesverband der Börsenvereine an deutschen Hochschulen e.V.") to identify all member associations. We then manually collected the names and email addresses of board members from the association websites (268 contacts) to invite them via email. We also asked them to ask their members to participate. Second, we used Xing (a German career-oriented social networking site) to contact members of the group "finanztreff" (1,104 members as of spring 2020), which is related to "finanztreff.de," an internet-based financial portal focusing on information for nonprofessional investors. Third, we asked members of two large German investment associations representing nonprofessional investors, the German association for the protection of shareholders ("Deutsche Schutzvereinigung für Wertpapierbesitz e.V.") and the association for investor protection ("Schutzgemeinschaft der Kapitalanleger e.V."). These associations use magazines to communicate with their members ("Focus Money" and "AnlegerPlus") and agreed to include information about this study and an invitation to participate in one issue. To motivate and encourage participation, we offered an executive summary of the research outcomes upon request.

Overall, we received 317 usable responses (before the elimination of comprehension and manipulation failures). The response rate for the sample of bankers is about 2.9 percent (155 replies).[22] For the nonprofessional investor sample, we cannot provide a response rate. First, we do not know how many members of the Stock Exchange Associations at German Universities were informed by the board members. Second, we do not know how many members of the two investment associations noticed the information about our research project in their magazines. However, we received 162 responses from nonprofessional investors. To test for nonresponse bias (Rogelberg and Stanton 2007), early and late responses were compared by performing several t-statistics on the dependent variables. These test results do not indicate any significant differences between early and late respondents, so that there is no indication of nonresponse bias.[23]

We excluded all participants who do not hold stocks (15 participants) from the nonprofessional investor sample. Furthermore, we excluded 21 (of the remaining 302 total) participants who did not correctly answer the comprehension check; and a further 99 regarding the first treatment variable (*BUSINESS_MODEL*) and 28 regarding the second treatment variable (*FEE_BASIS*), who failed our manipulation checks.[24] This leaves a final sample size of 154 participants. Table 1, Panel A shows the number of participants per experimental condition, and Panel B presents the demographic characteristics. Based on the results of the self-assessment of auditing and financial accounting expertise, participants appear to have sufficient experience and expertise to understand the experimental material.

IV. RESULTS

Main Results

To analyze our data, we collapsed both subject groups.[25] Table 2 tabulates the means and standard deviations of all dependent variables by experimental conditions.

Our main analysis focuses on the results for the dependent variable *QUALITY*. Table 3, Panel A presents the descriptive statistics for *QUALITY*. Note that lower values of the most likely EPS represent higher perceptions of audit quality. Concerning the audit firm's business model (*BUSINESS_MODEL*), participants perceive higher audit quality

[21] https://portal.mvp.bafin.de/database/InstInfo/?locale=en_G

[22] Furthermore, we received many responses explaining why they were not able to participate in our study, e.g., due to a lack of time because of the COVID-19 pandemic, or bankers who stated that their bank is a specialized one and does not grant credit to companies. Therefore, the response rate is much higher than the participation rate.

[23] We divided the sample by the median response into two groups of early and late responses.

[24] The failure rate for our manipulation checks is comparable to those discussed in prior research on electronic survey methods (e.g., Andrews, Nonnecke, and Preece 2003; Oppenheimer, Meyvis, and Davidenko 2009). One reason for the high failure rate could be that we provided a complex experimental case intended to prevent participants from identifying the research objectives. Furthermore, we did not pay the participants. Therefore, the performance of the participant might suffer as a result (Cameron et al. 2001). Finally, our pass rate (51.0 percent) by far exceeds the random pass rate (8.5 percent).

[25] To analyze whether there are differences between the subject groups, we conducted an ANCOVA including an "investor type" variable. The analysis (untabulated) revealed no significant results (either for the investor type variable itself or the interactions with the other two independent variables).

TABLE 2

Means of the Dependent Variables According to Experimental Conditions

Experimental Cell	n	*QUALITY*		*INDEPENDENCE*		*COMPETENCE*	
		Mean	**Std. Dev.**	**Mean**	**Std. Dev.**	**Mean**	**Std. Dev.**
1	25	€1.1156	0.022	4.6800	1.796	5.3600	1.075
2	25	€1.1148	0.022	5.1200	1.394	5.4400	1.158
3	26	€1.1092	0.017	5.4615	1.303	5.3462	0.797
4	26	€1.1142	0.021	4.5000	1.581	5.8462	0.967
5	24	€1.1154	0.023	5.0417	1.781	5.6667	1.204
6	28	€1.1289	0.024	3.6071	1.792	4.7143	1.536

The table presents the number of observations (n) and the mean and standard deviation of the dependent variables for each experimental cell.

Variable Definitions:
QUALITY = the participant assessment of audit quality (responses were anchored on €1.10—very high and €1.16—very low);
INDEPENDENCE = the participant assessment of auditor independence (responses were anchored on 1—low independence and 7—high independence); and
COMPETENCE = the participant assessment of auditor competence (responses were anchored on 1—low competence and 7—high competence).

TABLE 3

Results for the Dependent Variable *QUALITY*

Panel A: Descriptive Statistics of Participant Assessment of Audit Quality for Each Experimental Cell

	Audit Firm's Internal Calculation Rates	**Statutory Fee Schedule**	**Total**
Simultaneous provision of audit services and NAS	n = *28* €1.1289 (0.024)	n = *24* €1.1154 (0.023)	n = *52* €1.1227 (0.024)
Nonprovision of NAS to audit clients	n = *26* €1.1142 (0.021)	n = *26* €1.1092 (0.017)	n = *52* €1.1117 (0.019)
Pure audit firm	n = *25* €1.1148 (0.022)	n = *25* €1.1156 (0.022)	n = *50* €1.1152 (0.022)
Total	n = *79* €1.1196 (0.023)	n = *75* €1.1133 (0.021)	

Panel B: Results of ANOVA

	Degrees of Freedom	**Type III Sum of Squares**	**F-statistic**	**p-value**
Intercept	1	191.486	407,634.606	<0.001
BUSINESS_MODEL	2	0.003	3.117	0.047
FEE_BASIS	1	0.001	2.850	0.093
BUSINESS_MODEL * *FEE_BASIS*	2	0.001	1.405	0.249
Error	148	0.070		
Total	154	192.068		

(continued on next page)

TABLE 3 (continued)

Panel C: Hypothesis Testing

Hypothesis	F-statistic	p-value
H1: Custom contrast with weights of (+1, +1, +1, +1, +1, −5)	11.332	<0.001
Residual between-cells variance	0.189	0.664
Contrast variance residual, q^2	0.063	
H1a: Custom contrast with weights of (0, 0, +1, +1, +1, −3)	11.477	<0.001
Residual between-cells variance	0.157	0.692
Contrast variance residual, q^2	0.052	
H1b: Custom contrast with weights of (+1, +1, 0, 0, +1, −3)	8.406	0.004
Residual between-cells variance	0.866	0.353
Contrast variance residual, q^2	0.292	

Panel D: Simple Effects Tests of *BUSINESS_MODEL*

	Audit Firm's Internal Calculation Rates	Statutory Fee Schedule
Pure audit firm versus simultaneous provision of audit services and NAS	p = 0.030	p = 0.978
Nonprovision of NAS to audit clients versus simultaneous provision of audit services and NAS	p = 0.019	p = 0.289
Pure audit firm versus nonprovision of NAS to audit clients	p = 0.925	p = 0.256

Panel E: Simple Effects Tests of *FEE_BASIS*

Pure audit firm	p = 0.347
Nonprovision of NAS to audit clients	p = 0.899
Simultaneous provision of audit services and NAS	p = 0.045

Panel A presents the number of observations (n), and the mean and standard deviation (in parentheses) of the participant assessment of audit quality (responses were anchored on €1.10—very high and €1.16—very low) for each experimental cell, and the totals. The simultaneous provision of audit services and NAS is under the condition of a cap on NAS fees and a detailed blacklist of prohibited NAS. Panel B reports the results of a full-factorial ANOVA with the participant assessment of audit quality as the dependent variable, and the business model (pure audit firm versus nonprovision of NAS to audit clients versus simultaneous provision of audit services and NAS) and the fee basis (statutory fee schedule versus internal calculation rates of the audit firm) as factors. Panel C presents the results from hypotheses testing using custom contrast tests following the procedure given in Guggenmos et al. (2018). We test H1 using the custom contrast code (+1, +1, +1, +1, +1, −5) to analyze the overall effect of a nonprovision of NAS, where "−5" is assigned to the condition where there is a simultaneous provision of audit services and NAS and fees are based on internal calculation rates, and "1" is assigned to the other conditions respectively. H1a tests the effect of a nonprovision of NAS to audit clients using the following custom contrast code (0, 0, +1, +1, +1, −3) where the first two "0" are assigned to the pure audit firm conditions, the two "1" are assigned to the two nonprovision of NAS to audit clients conditions, and the last "1" and "−3" are assigned to the two simultaneous provision of audit services and NAS conditions. H1b tests the effect of a nonprovision of NAS to all clients (i.e., pure audit firm) using the following custom contrast code (+1, +1, 0, 0, +1, −3) where the first two "1" are assigned to the pure audit firm conditions, the two "0" are assigned to the two nonprovision of NAS to audit clients conditions, and the last "1" and "−3" are assigned to the two simultaneous provision of audit services and NAS conditions. Panel D presents the results from the simple effects tests of *BUSINESS_MODEL* holding *FEE_BASIS* constant (all p-values are two-tailed). Panel E shows the results from the simple effects tests of *FEE_BASIS* holding *BUSINESS_MODEL* constant (all p-values are two-tailed).

when there is a nonprovision of NAS to audit clients (mean = €1.1117, Std. Dev. = 0.019) or a pure audit firm (mean = €1.1152, Std. Dev. = 0.022) than when audit services and NAS are provided simultaneously (under the condition of a cap on NAS fees and a detailed blacklist of prohibited NAS; mean = €1.1227, Std. Dev. = 0.024). Regarding the calculation basis of audit fees (*FEE_BASIS*), participants perceive higher audit quality when audit fees are based on a statutory fee schedule (mean = €1.1133, Std. Dev. = 0.021) compared to when rates are internally calculated by the audit firm (mean = 1.1196, Std. Dev. = 0.023).

Table 3, Panel B presents the ANOVA results. The main effect of *BUSINESS_MODEL* is significant (F = 3.117, p = 0.047), revealing a significant difference between the treatments. The results from the ANOVA also reveal a significant difference (F = 2.850, p = 0.093) for *FEE_BASIS*. The interaction between *BUSINESS_MODEL* and *FEE_BASIS* is insignificant (F = 1.405, p = 0.249).

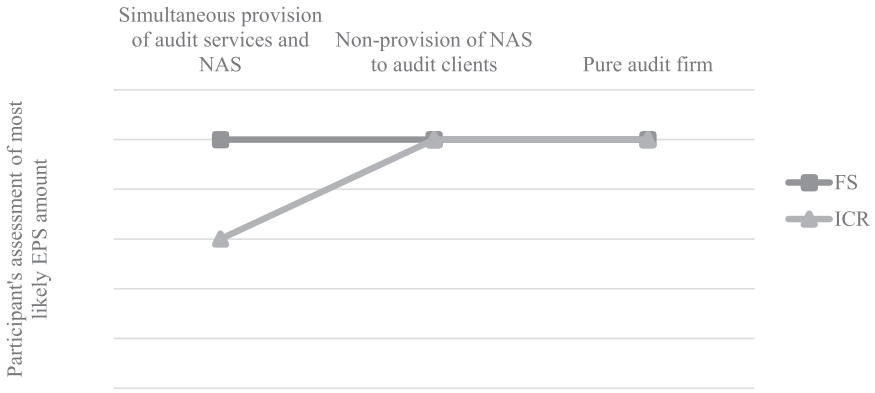
H1 predicts that the nonprovision of NAS will lead to higher perceived audit quality compared to the joint provision of audit service and NAS when audit fees are based on internal calculation rates, but not when there is a statutory fee schedule. We use custom contrast coding following the three-part approach outlined by Guggenmos, Piercey, and Agoglia (2018) to test for the interaction effect predicted and shown in Figure 1, Panel A. We therefore assess the visual fit, evaluate the statistical significance of the contrast and the between-cells residual variance, and evaluate the contrast residual variance (q^2).

To test for H1, we use a custom contrast with weights of (+1, +1, +1, +1, +1, −5) to analyze the overall effect of a nonprovision of NAS, where "−5" is assigned to the condition where there is a simultaneous provision of audit services and NAS, and fees are based on internal calculation rates, and where "1" is assigned to the other conditions respectively. First, the predicted pattern of means in Figure 1, Panel A, arises from the theoretical predictions outlined in our hypothesis development section. Panel B presents the observed results. After a visual evaluation, we conclude that the observed data fit the predicted pattern reasonably well.

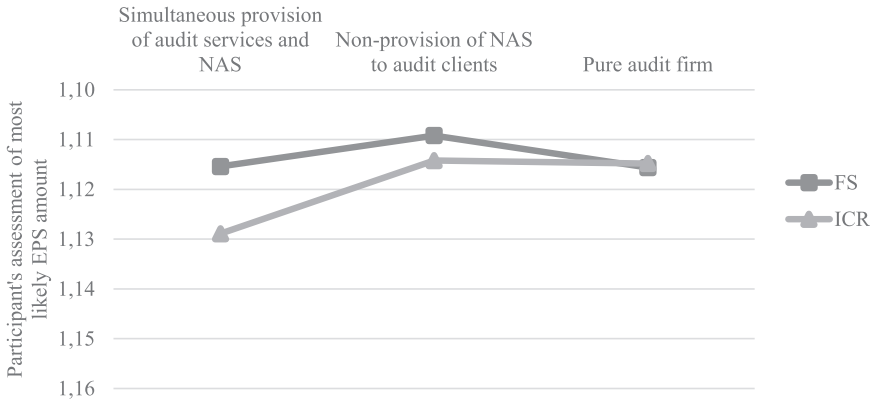
Second, as shown in Table 3, Panel C, this contrast is significant ($F = 11.332$, $p < 0.001$), providing support for our hypothesis. In addition, the residual between-cells variance is not significant ($F = 0.189$, $p = 0.664$), indicating that the

FIGURE 1
Predicted and Observed Effects on *QUALITY* (Estimated Marginal Means)

Panel A: Predicted Results



Panel B: Observed Results



Panel A: The figure presents a graph of the predicted estimated marginal means of the participant assessment of audit quality as the dependent variable and with the *BUSINESS_MODEL* (simultaneous provision of audit services and NAS (under the condition of a cap on NAS fees and a detailed blacklist of prohibited NAS) versus nonprovision of NAS to audit clients versus pure audit firm) and the *FEE_BASIS* (statutory fee schedule versus the internal calculation rates of the audit firm) as factors.
Panel B: The figure reports the respective observed estimated marginal means of the participant assessment of audit quality (responses were anchored on €1.10—very high (all the audit difference corrected) and €1.16—very low (none of the audit difference corrected) in intervals of €0.01). For reasons of readability, the ordinate for *QUALITY* has been labeled with descending values, to show that a high audit quality value (i.e., lower EPS) is further up in the graph.

hypothesized contrast describes the data well (Guggenmos et al. 2018). Third, the contrast variance residual is 0.063, meaning the predicted contrast fails to explain approximately 6.3 percent of the explainable variance. To conclude, the results support H1. To obtain a more comprehensive picture of this pattern, we repeat the analysis separately for the two "nonprovision of NAS" types.

H1a predicts that the nonprovision of NAS to audit clients will lead to higher perceived audit quality compared to the joint provision of audit service and NAS, when audit fees are based on internal calculation rates, but not when there is a statutory fee schedule. We use a custom contrast with weights of (0, 0, +1, +1, +1, −3). The first two "0s" are assigned to the pure audit firm conditions, the two "1s" are assigned to the two nonprovision of NAS to audit clients conditions, and the last "1" and "−3" are assigned to the two simultaneous provision of audit services and NAS conditions. Table 3, Panel C shows a significant result for this contrast ($F = 11.477$, $p < 0.001$) supporting H1a. Moreover, the residual between-cells variance is not significant ($F = 0.157$, $p = 0.692$). Therefore, the hypothesized contrast describes the data quite well. Furthermore, the contrast variance residual of 0.052 indicates that the predicted contrast does not explain approximately 5.2 percent of the explainable variance. To sum up, we can also confirm H1a.

We also repeat the procedure to test for H1b, which predicts the same effect of a nonprovision of NAS to all clients (i.e., a form of pure audit firm) on audit quality perceptions. In line with the hypothesis, we use a custom contrast with weights of (+1, +1, 0, 0, +1, −3). The first two "1s" are assigned to the pure audit firm conditions, the two "0s" are assigned to the two nonprovision of NAS to audit clients conditions, and the last "1" and "−3" are assigned to the two simultaneous provision of audit services and NAS conditions. Again, the result for the contrast is significant ($F = 8.406$, $p = 0.004$; see Table 3, Panel C), which provides support for H1b as well. Furthermore, the residual between-cells variance is not significant ($F = 0.866$, $p = 0.353$). Therefore, the data is well described by the hypothesized contrast. The contrast variance residual of 0.292 shows that the predicted contrast does not explain around 29.2 percent of the explainable variance. To conclude, H1b is also supported.

Furthermore, we conduct several simple-effects tests comparing the means of the experimental cells. First, we conduct the simple effect of *BUSINESS_MODEL* holding *FEE_BASIS* constant (Table 3, Panel D). The results (in line with our hypotheses) suggest that there is only a significant difference between a nonprovision of NAS to audit clients (or to all clients) and a simultaneous provision of audit services and NAS when audit fees are based on the audit firm's internal calculation rates ($p = 0.019$ for a nonprovision of NAS to audit clients; $p = 0.030$ in the case of a pure audit firm). The effect does not hold when fees are based on a statutory fee schedule. Second, we conduct the simple effect of *FEE_BASIS* holding *BUSINESS_MODEL* constant. Table 3, Panel E shows the results. The effect of *FEE_BASIS* is only significant in the simultaneous provision condition ($p = 0.045$), but not in the other two nonprovision of NAS conditions. Therefore, a statutory fee schedule leads only to higher perceptions of audit quality when the auditor provides audit services and NAS simultaneously. Consequently, imposing further restrictions on NAS and implementing a statutory fee schedule is not expected to yield additional improvement in perceived audit quality.

Our findings may indicate that adding one measure (either one version of a nonprovision of NAS or a statutory fee schedule) positively affects perceptions of audit quality. However, the combination of both measures seems to have no incremental effect.

Additional Analyses

In additional analyses, we repeat the tests for the two other dependent variables, *INDEPENDENCE* and *COMPETENCE*, without formulating separate hypotheses. Overall, the pattern of results is entirely consistent with the results for *QUALITY*.

Table 4, Panel A presents the descriptive statistics for *INDEPENDENCE*. The pattern of results for the mean value of the assessment of auditor independence is equal to the assessment of *QUALITY* (for details, we refer to the table).

Table 4, Panel B presents the ANOVA results, indicating a significant main effect for *BUSINESS_MODEL* and for *FEE_BASIS*, which is in line with the results for *QUALITY*. Furthermore, we also find a significant interaction effect ($F = 4.580$, $p = 0.012$).

The results from the custom contrast tests (Table 4, Panel C) are also quite similar to those for *QUALITY*. Therefore, the nonprovision of NAS only improves perceived auditor independence when the audit fee is calculated internally by the audit firm, but not when there is a statutory fee schedule.

We also performed simple effects tests for *BUSINESS_MODEL* (Table 4, Panel D) and *FEE_BASIS* (Table 4, Panel E). The results reveal the same pattern of significant differences across conditions as for *QUALITY*. Furthermore, the results reveal a significant negative difference between the pure audit firm in combination with a statutory fee schedule and the nonprovision of NAS to audit clients in combination with a statutory fee schedule condition ($p = 0.083$). In addition, there is a significantly positive difference between the conditions in which there is a nonprovision of NAS to

TABLE 4

Results for the Dependent Variable *INDEPENDENCE*

Panel A: Descriptive Statistics of Participant Assessment of Auditor Independence for Each Experimental Cell

	Audit Firm's Internal Calculation Rates	Statutory Fee Schedule	Total
Simultaneous provision of audit services and NAS	n = *28*	n = *24*	n = *52*
	3.6071	5.0417	4.2692
	(1.792)	(1.781)	(1.911)
Nonprovision of NAS to audit clients	n = *26*	n = *26*	n = *52*
	4.5000	5.4615	4.9808
	(1.581)	(1.303)	(1.515)
Pure audit firm	n = *25*	n = *25*	n = *50*
	5.1200	4.6800	4.9000
	(1.394)	(1.796)	(1.607)
Total	n = *79*	n = *75*	
	4.3797	5.0667	
	(1.704)	(1.647)	

Panel B: Results of ANOVA

	Degrees of Freedom	Type III Sum of Squares	F-statistic	p-value
Intercept	1	3,444.874	1,311.730	<0.001
BUSINESS_MODEL	2	13.217	2.516	0.084
FEE_BASIS	1	16.330	6.218	0.014
BUSINESS_MODEL * *FEE_BASIS*	2	24.059	4.580	0.012
Error	148	388.678		
Total	154	3,868.000		

Panel C: Custom Contrast Tests

Hypothesis	F-statistic	p-value
Custom contrast with weights of (+1, +1, +1, +1, +1, −5)	15.803	<0.001
Residual between-cells variance	1.102	0.296
Contrast variance residual, q^2	0.218	
Custom contrast with weights of (0, 0, +1, +1, +1, −3)	15.067	<0.001
Residual between-cells variance	1.256	0.264
Contrast variance residual, q^2	0.250	
Custom contrast with weights of (+1, +1, 0, 0, +1, −3)	13.886	<0.001
Residual between-cells variance	1.518	0.220
Contrast variance residual, q^2	0.304	

Panel D: Simple Effects Tests of *BUSINESS_MODEL*

	Audit Firm's Internal Calculation Rates	Statutory Fee Schedule
Pure audit firm versus simultaneous provision of audit services and NAS	p = 0.001	p = 0.483
Nonprovision of NAS to audit clients versus simultaneous provision of audit services and NAS	p = 0.057	p = 0.344
Pure audit firm versus nonprovision of NAS to audit clients	p = 0.144	p = 0.083

(continued on next page)

TABLE 4 (continued)

Panel E: Simple Effects Tests of *FEE_BASIS*

Pure audit firm	p = 0.338
Nonprovision of NAS to audit clients	p = 0.021
Simultaneous provision of audit services and NAS	p = 0.006

Panel A presents the number of observations (n), and the mean and standard deviation (in parentheses) of the participant assessment of auditor independence (responses were anchored on 1—low independence and 7—high independence) for each experimental cell. The simultaneous provision of audit services and NAS is under the condition of a cap on NAS fees and a detailed blacklist of prohibited NAS. Panel B reports the results of a full-factorial ANOVA with the participant assessment of auditor independence as the dependent variable, and the business model (pure audit firm versus nonprovision of NAS to audit clients versus simultaneous provision of audit services and NAS) and the fee basis (statutory fee schedule versus internal calculation rates of the audit firm) as factors. Panel C presents the results from custom contrast tests following the procedure given in Guggenmos et al. (2018) using the same contrasts as for *QUALITY*. Panel D presents the results from the simple effects tests of *BUSINESS_MODEL* holding *FEE_BASIS* constant (all p-values are two-tailed). Panel E shows the results from the simple effects tests of *FEE_BASIS* holding *BUSINESS_MODEL* constant (all p-values are two-tailed).

audit clients in combination with a statutory fee schedule versus a nonprovision of NAS to audit clients in combination with the audit firm's internal calculation rates (p = 0.021).

Table 5, Panel A presents the descriptive statistics for *COMPETENCE*. Again, the highest value of perceived competence can be observed in the case of a nonprovision of NAS to audit clients, followed by the same pattern of results as for *QUALITY* and *INDEPENDENCE*.

TABLE 5

Results for the Dependent Variable *COMPETENCE*

Panel A: Descriptive Statistics of Participant Assessment of Auditor Competence for Each Experimental Cell

	Audit Firm's Internal Calculation Rates	Statutory Fee Schedule	Total
Simultaneous provision of audit services and NAS	n = *28*	n = *24*	n = *52*
	4.7143	5.6667	5.1538
	(1.536)	(1.204)	(1.460)
Nonprovision of NAS to audit clients	n = *26*	n = *26*	n = *52*
	5.8462	5.3462	5.5962
	(0.967)	(0.797)	(0.913)
Pure audit firm	n = *25*	n = *25*	n = *50*
	5.4400	5.3600	5.4000
	(1.158)	(1.075)	(1.107)
Total	n = *79*	n = *75*	
	5.3165	5.4533	
	(1.326)	(1.031)	

Panel B: Results of ANOVA

	Degrees of Freedom	Type III Sum of Squares	F-statistic	p-value
Intercept	1	4,472.940	3,373.450	<0.001
BUSINESS_MODEL	2	4.267	1.609	0.204
FEE_BASIS	1	0.592	0.446	0.505
BUSINESS_MODEL * *FEE_BASIS*	2	14.450	5.449	0.005
Error	148	196.237		
Total	154	4,679.000		

(continued on next page)

TABLE 5 (continued)

Panel C: Custom Contrast Tests

Hypothesis	F-statistic	p-value
Custom contrast with weights of (+1, +1, +1, +1, +1, −5)	11.572	<0.001
Residual between-cells variance	0.758	0.385
Contrast variance residual, q^2	0.208	
Custom contrast with weights of (0, 0, +1, +1, +1, −3)	12.749	<0.001
Residual between-cells variance	0.496	0.482
Contrast variance residual, q^2	0.135	
Custom contrast with weights of (+1, +1, 0, 0, +1, −3)	9.337	0.003
Residual between-cells variance	1.269	0.262
Contrast variance residual, q^2	0.353	

Panel D: Simple Effects Tests of *BUSINESS_MODEL*

	Audit Firm's Internal Calculation Rates	Statutory Fee Schedule
Pure audit firm versus simultaneous provision of audit services and NAS	p = 0.060	p = 0.353
Nonprovision of NAS to audit clients versus simultaneous provision of audit services and NAS	p = 0.002	p = 0.278
Pure audit firm versus nonprovision of NAS to audit clients	p = 0.181	p = 0.959

Panel E: Simple Effects Tests of *FEE_BASIS*

Pure audit firm	p = 0.801
Nonprovision of NAS to audit clients	p = 0.047
Simultaneous provision of audit services and NAS	p = 0.016

Panel A presents the number of observations (n), and the mean and standard deviation (in parentheses) of the participant assessment of auditor competence (responses were anchored on 1—low competence and 7—high competence) for each experimental cell. The simultaneous provision of audit services and NAS is under the condition of a cap on NAS fees and a detailed blacklist of prohibited NAS. Panel B reports the results of a full-factorial ANOVA with the participant assessment of auditor competence as the dependent variable, and the business model (pure audit firm versus nonprovision of NAS to audit clients versus simultaneous provision of audit services and NAS) and the fee basis (statutory fee schedule versus internal calculation rates of the audit firm) as factors. Panel C presents the results from custom contrast tests following the procedure given in Guggenmos et al. (2018) using the same contrasts as for *QUALITY*. Panel D presents the results from the simple effects tests of *BUSINESS_MODEL* holding *FEE_BASIS* constant (all p-values are two-tailed). Panel E shows the results from the simple effects tests of *FEE_BASIS* holding *BUSINESS_MODEL* constant (all p-values are two-tailed).

Table 5, Panel B shows the results of ANOVA. Contrary to the results for *QUALITY* and *INDEPENDENCE*, we do not find a significant main effect for *BUSINESS_MODEL* (F = 1.609, p = 0.204). The main effect of *FEE_BASIS* is also insignificant (F = 0.446, p = 0.505). However, we find a significant interaction between *BUSINESS_MODEL* and *FEE_BASIS* (F = 5.449, p = 0.005).

However, the results from the custom contrast tests (Table 5, Panel C) show the same pattern as for the other dependent variables. Hence, the nonprovision of NAS only improves perceived auditor competence when audit fees are based on internal calculation rates, but not when they are based on a statutory fee schedule.

Simple effects test results for *BUSINESS_MODEL* (Table 5, Panel D) and *FEE_BASIS* (Table 5, Panel E) show the same pattern as for *QUALITY* and *INDEPENDENCE*. Furthermore, the results reveal a significant negative difference between the conditions in which there is a nonprovision of NAS to audit clients in combination with a statutory fee schedule versus a nonprovision of NAS to audit clients in combination with the audit firm's internal calculation rates (p = 0.047).

V. CONCLUSION

Accounting scandals (e.g., recently Carillion in the U.K. or Wirecard in Germany) are usually followed by calls for instruments to strengthen audit quality and the associated perceptions of financial statements users. A regularly raised and fundamental point of criticism is how audit firms generate their revenue (e.g., the range of services offered and the

amount of fees received) and the resulting potentially adverse effects on audit quality. Therefore, this study experimentally investigates how a nonprovision of NAS (either by pure audit firms or nonprovision of NAS to audit clients) and a statutory fee schedule impact banker and nonprofessional investor perceptions of audit quality.

Theoretically, there is a negative effect on perceived auditor independence if audit services and NAS are provided simultaneously, mainly because of the economic bond that develops between the auditor and the client. However, the auditor can transfer and apply client-specific knowledge spillovers from consulting activities that may increase her/his competence. Hence, the net effect on perceived audit quality remains unclear. If there is a nonprovision of NAS, the effects might counteract each other. Furthermore, the intense focus on auditing activities and learning effects through NAS provision to nonaudit clients should compensate for potential competence threats through the loss of knowledge spillovers. Moreover, the strong positive impact on perceived auditor independence should outweigh possible adverse effects on perceived competence. Therefore, a positive net effect on perceived audit quality is expected. Furthermore, a statutory fee schedule might improve auditor independence and competence, as it counteracts potential low-balling practices and downside fee pressure. Therefore, we expect a positive net effect on perceived audit quality.

Our results confirm that a nonprovision of NAS (either to audit clients or all clients, i.e., pure audit firm case) has a significant positive effect on banker and nonprofessional investor perceptions of audit quality, auditor independence, and auditor competence, but only when audit fees are based on the audit firm's internal calculation rates. Furthermore, we find some indications that a statutory fee schedule significantly increases perceptions of audit quality, auditor independence, and auditor competence, but only in cases of a joint provision of audit services and NAS. Consequently, instead of a full ban on the provision of NAS, an alternative approach is to introduce a statutory fee schedule which would still permit the provision of NAS while adhering to existing caps. Furthermore, the study suggests that adding one measure (either one version of a nonprovision of NAS or applying a statutory fee schedule) may positively affect perceptions of audit quality, auditor independence, and auditor competence. However, the combination of both measures seems to have no incremental effect.

Our study contributes to the current debate, following recent accounting scandals, on potential measures for increasing audit quality. We first show that voluntary self-restraint regarding the provision of NAS, and a statutory fee schedule are positively reflected in quality perceptions. Therefore, we provide a new perspective on a traditional research area with ambiguous results, by providing insights from two major stakeholder groups. By contrast, prior studies have predominantly used students to proxy for nonprofessional investor perceptions. Moreover, our results may be useful for regulators considering or introducing similar regulations, since regulatory initiatives could have comparable effects. Finally, our results contribute to the overall discussion on further measures to increase audit quality, and the academic debate on the related advantages and disadvantages. Hence, our findings are of practical relevance for regulators, auditors, members of audit committees, and users of financial statements.

Our study is subject to several limitations. First, the participants were bankers and nonprofessional investors in Germany. Therefore, we cannot guarantee that the results are also valid for other countries and stakeholders. The effects of the statutory fee schedule could be driven especially by the fact that statutory fee schedules are typical for comparable professions in Germany. Therefore, findings from other countries might differ. However, the theory behind these effects neither relies on familiarity nor cultural or setting-specific prerequisites, so it is likely that the findings are generalizable. The fact that statutory fee schedules are well known from comparable professions in the German setting makes it a particularly appealing setting for our experiment. Second, our experimental approach refers to a voluntary nonprovision of NAS. Therefore, from our results, we cannot directly infer the effects of a nonprovision mandated by regulators. Third, our theoretical assumptions with respect to the statutory fee schedule and auditor's revenue-generation model are reduced only to audit services, as we did not include the underlying calculation basis of NAS. There might also be an effect if a statutory fee schedule was applied for NAS. Fourth, around 50 percent of the participants failed the comprehension and manipulation checks. However, it is important to note that we did not pay the participants. Therefore, the performance and effort of participants might have suffered (Cameron, Banko, and Pierce 2001), which could explain the high failure rate. Additionally, and even though there is no indication that our results are affected by any nonresponse bias, we cannot guarantee that our results hold for nonparticipants. Lastly, our scenario does not capture all factors of a real-life setting. Therefore, perceptions might vary, for example, if the company were from another industry or the economic situation were different.

These limitations offer various opportunities for further research. It would be interesting to see how these measures would be evaluated by participants from other countries and other participant groups (e.g., supervisory board members, institutional investors, or financial analysts). It would be useful to study why certain specific participants did or did not perceive a given measure as improving audit quality and its components.

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APPENDIX A

Experimental Case

General and Business Situation

"JETO AG" is a medium-sized ceramic goods manufacturer with headquarters in Germany. The business model is divided into the areas "Bathroom and Wellness" and "Tableware." The company has 8,000 employees and the current labor agreement will end on November 30, 2020.

The Management Board of "JETO AG" consists of four members. They receive a fixed basic salary and some fringe benefits, like cars. In addition, the Supervisory Board determines annually, in December, a performance-related compensation based on existing contracts. The Supervisory Board consists of 13 members, six of them representing employees. All members receive a fixed payment at year-end and reimbursement for expenses. The members of the Management Board and Supervisory Board possess the necessary professional and personal capabilities.

In the last three financial years, the business of "JETO AG" has been very successful. For the current financial year, the company preliminarily reports the following pre-audit and unpublished balance sheet information for its consolidated financial statement, according to the International Financial Reporting Standards (IFRS).

Key financial figures	
Revenue	€ 837 million
Earnings before interest and taxes (EBIT)	€ 50 million
Comprehensive income	€ 30 million
Cashflow from operations	€ 41 million

With the number of "JETO AG" outstanding stocks, the following provisionally pre-audited EPS results:
EPS (preliminary, pre-audited): €1.16

Consolidated financial statement	**12/31**		**12/31**
	€ 688 million		**€ 688 million**
Non-current assets	**€ 269 million**	**Equity**	**€ 195 million**
Intangible assets	€ 38 million	Issued capital	€ 77 million
Property, plant and equipment	€ 165 million	Capital reserve	€ 105 million
Other financial assets	€ 15 million	Retained earnings	€ 13 million
Other non-current assets	€ 14 million		
Deferred tax liabilities and deferred tax assets	€ 37 million	**Liabilities**	
		Non-current liabilities	**€ 274 million**
Current assets	**€ 419 million**	Pension provisions	€ 204 million
Inventories	€ 155 million	Other non-current provisions	€ 11 million
Trade receivables	€ 127 million	Non-current financial liabilities	€ 50 million
Other current assets	€ 28 million	Other non-current liabilities	€ 9 million
Cash and cash equivalents	€ 109 million		
		Current liablities	**€ 219 million**
		Other current provisions	€ 35 million
		Trade payables	€ 84 million
		Other current liabilities	€ 100 million

Analyst Forecast

Stocks of "JETO AG" are listed on the Frankfurt Stock Exchange, where the company has been listed in the "Prime Standard" for eight years. Financial analysts have always followed business developments with great interest. In the run-up to the publication of the figures for the current financial year, the financial analysts' expected EPS forecast for "JETO AG "is (consensus estimate):

Forecasted EPS: €1.15

(continued on next page)

APPENDIX A (continued)

Auditor

"AUDITING audit firm" was appointed to audit the consolidated financial statements. It is one of the four major auditing companies in the German audit market ("Big 4") and was appointed by the Supervisory Board of "JETO AG" after an election at the annual general meeting.

(1)	(2)	(3)
"AUDITING audit firm" **only offers audit services (so-called "pure audit firm"). Unlike its competitors, nonaudit services (such as other assurance services, tax advisory services, or other management consulting services) are not part of the services offered by "AUDITING audit firm" (i.e., they are not provided to nonaudit clients either).** In the last financial year, "AUDITING audit firm" achieved total revenue of €295 million.	"AUDITING audit firm" **offers audit services, as well as nonaudit services (such as other confirmation services, tax consulting services, or other management consulting services). Unlike its competitors, it is part of the business policy of "AUDITING audit firm" not to provide these nonaudit services to its audit clients.** In the last financial year, "AUDITING audit firm" achieved total revenue of **€1,625 million. Of this, around €295 million was from audit services, and €1,330 million from nonaudit services.**	"AUDITING audit firm" **provides audit services, as well as nonaudit services (such as other assurance services, tax advisory services, or other management consulting services). It generally provides these nonaudit services also to its audit clients (within the legal framework).** In the last financial year, "AUDITING audit firm" achieved total revenue of **€1,625 million. Of this, around €295 million was from audit services, and €1,330 million from nonaudit services.**

The audit of the consolidated financial statements is subject to the IFRS, the German Accounting Standards (DRS), the accounting standards of the German Commercial Code (HGB), the national auditing standards of the German Institute of Auditors (IDW), and the international auditing standards (ISA) of the International Federation of Accountants (IFAC).

For the last three financial years, "AUDITING audit firm" is responsible for the statutory audit and has always issued an unqualified audit opinion. To date, there have also been no disagreements between the auditor and the management of "JETO AG" concerning accounting principles, the annual financial statements, the scope of the audit, or the type of audit procedures.

Audit Fees

For the audit of the consolidated financial statements of "JETO AG," a flat fee of €400,000 was set, which is comparable to the fees for the previous year's audits.

(1)	(2)
The fee is based on **a statutory fee schedule, which determines both the amount of the hourly rates and the number of hours to be estimated for each audit procedure.**	The fee is based on **the internal calculation rates of "AUDITING audit firm."**

The fee agreement was approved accordingly by the supervisory board of "JETO AG."

Audit Differences

Within the scope of the consolidated financial statement audit, the auditor revealed one material audit difference, which he communicated informally to the company's management. The difference is due to management's excessively optimistic management assessment of the net realizable value of inventories. The auditor believes that the inventory measurement is too high and overstates pre-audit EPS by €0.06. The extent of the audit difference is €1.6 million.