Determinants of Audit Partner Compensation

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ABSTRACT

In this paper, we empirically examine whether audit partners are subject to performance-based pay. Using a proprietary dataset from the Big 6 audit firms in the Netherlands over the period 2007 – 2017, we hypothesize and find that a significant part of audit partners' compensation is based on individual performance in addition to competence. We further find that the individual performance of audit partners determines the chances of getting promoted and demoted in their audit firms. In addition, we find that subpar-performing partners are more likely to exit their positions as audit partners. Importantly, our qualitative evidence indicates that audit firms have moved in a direction where audit quality has become more influential on individual audit partners' performance evaluation and compensation. However, this development is only weakly supported by quantitative evidence.

Keywords: audit partner compensation, audit partner performance, audit quality, Big 6

INTRODUCTION

Who sets the equity partners' pay in a partnership? In this paper, we examine whether and if so, how performance-based pay systems are used to motivate and retain audit partners in an audit partnership. Partnerships use profit-sharing systems to incentivize individual partners as each time when firm profit increases, so will each partner's profit share. However, since partnerships are typically in the business of activities that feature high information asymmetry, it is more difficult to attribute the work of individual partners to the firm's products or services which, in turn, allows moral-hazard problems to surface (Gaynor and Pauly, 1990). This is especially the case for audit services as it is very hard for audit services to establish whether partners put in the appropriate level of effort and to gauge the quality of the final product (Causholli and Knechel 2012). Given that partner-level performance measures can direct partners' effort to benefit the partnership, performance management and performance-based pay may be used to motivate individual partners to maximize partnership wealth.

Audit partners play a central role in audit engagement and are therefore held responsible for audit performance (e.g. Zerni 2012; PCAOB 2015; Bik and Hooghiemstra 2016). We learn primarily from anecdotal evidence how partners are incentivized to deliver high-quality audits and yet for decades, public policymakers and regulators have been trying to gain insight into the working of audit firm incentive systems and to improve their work (e.g. IOSCO 2009; NBA 2014). While some academic work has appeared, these studies without exception conclude that much is to be learned when it comes to audit partner incentive systems in audit firms (e.g. Francis 2011; Knechel, Niemi, and Zerni 2013; Dekeyser et al. 2014; Lennox and Wu 2018). A major limitation in this regard is that most studies rely on publicly available data (Knechel, Niemi, and Zerni 2013; DeFond and Zhang 2014; Lennox and Wu 2018; Lennox, Wang, and Wu 2018; Dekeyser et al. 2019; Knechel et al. 2019;

Ernstberger et al. 2019) or surveys or interviews (e.g., Trompeter 1994; Burrows and Black 1998; Coram and Robinson 2017), rather than the actual performance measurement or compensation data directly collected from the firm's files. While all these data sources are available to a very limited extent, it is extremely difficult to gain direct access to archival data . In this study, we were able to collect data directly from the archives from the audit firms.

We examine empirically whether partners in audit firms are subject to performance-based pay and whether their promotion and retention are associated with performance levels. We also examine whether changing external conditions where auditors are held accountable for their performance, affect their compensation system design. With audit partners[1], we refer to equity partners who are entitled to sign off external audit opinions, as opposed to salary partners or directors who may have a similar mandate.

Our sample comprises of partner performance measurement and compensation policies data as well as of actual performance and compensation data covering the period from 2007 to 2017 from the Big 6 audit firms in the Netherlands. The Dutch institutional setting is of specific relevance to this study given the public debate on the topic over the past decade (e.g. NBA 2014) and the recent regulatory changes on implementing financial incentives for audit quality. Specifically, new regulation requires the remuneration system of the audit firms, including their profit-sharing system, to appropriately reflect audit quality incentives (Article 18b of the Dutch corporate law on audit firm supervision).

Our findings suggest that audit firms do have pay-for-performance systems in place. That is, partners' compensation levels are not only explained by their roles and responsibilities

[1] We use the term "audit partner" to refer to the signing auditor, consistent with recent literature (e.g. Knechel, Niemi, and Zerni 2013; Lennox and Wu 2018). Others refer to "audit engagement partner" (e.g. PCAOB 2009; Ittonen, Vähämaa, and Vähämaa 2013), "engagement auditor" (e.g. Chen, Sun, and Wu 2010), "signing partner"(e.g. Chi and Chin 2011) , and "Auditor-in-charge" (e.g. Sundgren and Svanström 2014; Bik and Hooghiemstra 2016).

(i.e., level of seniority, which audit firms refer to as “level of competence” or “competency”), but also by their individual performance. The deployment of these individual performance metrics allows the audit firms to encourage (and monitor) its individual partners to make decisions in favor of the partnership, rather than to take risks at the cost of the partnership (Narayanan, 1995). We also find that audit partners are more likely to leave their positions if their performance gauged through the performance management system is evaluated as subpar. Lastly, we explore whether growing pressure from society and regulators leads audit firms to increase transparency of their compensation practice. However, statistical evidence suggests that this is not the case.

We believe that our findings contribute to recent calls from regulators and academics to provide more insight into audit partner compensation practices (Lennox and Wu 2018). This paper answers their calls by addressing two questions: first, how do audit firms measure partner performance? And second, what are the determinants of partner promotions and departures? To our knowledge, this is one of the first studies that use archival performance and remuneration data directly collected from audit firms to investigate these two empirical questions.

LITERATURE AND HYPOTHESES

In this section, we develop our hypotheses. The hypotheses are related to the extent to which individual audit partner performance and competency levels are associated to his / her pay levels and how well audit firms are able to justify their audit partner performance management and profit-sharing systems.

Partnerships

Audit firms are often organized as partnerships. To retain its profitability an important concern for audit firms is to maintain their reputation for independence and audit quality (Van Lent

1999). Levin and Tadelis (2005) argue that partnerships vis-à-vis corporations feature a more potent mechanism to enhance the quality of its products and services. This mechanism pertains to how these two different organizations appoint new entrants. Levin and Tadelis (2005) argue that a corporation will hire a new employee up to the point where the expected marginal product of the newly hired worker equals the relevant hiring cost. Any additional worker that in sum increases firm profit would therefore be appointed. Partnerships, on the other hand, make a different trade-off. Assuming partnerships deploy an equal profit-sharing system, the criterion to appoint an additional partner is that the average profit per partner remains at least the same. Hence, it is not sufficient that the overall partnership profit goes up after appointing a new partner. As a consequence, corporations apply *de facto* a lower threshold for hiring additional workers than partnerships. A higher hiring threshold would affect the service quality as partnerships are encouraged to appoint higher ability workers (Levin and Tadelis 2005).

Once new partners assume their positions in the firm, other partners would want to make sure that each individual partner continues to deliver performance at a level where (s)he at least matches or even exceeds the performance of the other partners and builds the reputation of the firm. In the following section, we argue that the profit-sharing system alone is insufficient to assure that individual partners perform at desired levels.

While the incoming partner selection criterion functions as an ex-ante mechanism to evaluate whether a new partner can perform at a required level, it is important that partners continue to perform at required levels in the future. The main risk audit firms run is that their reputation is affected by the decisions of individual partners. However, as audits qualify as a credence good (Causholli and Knechel 2012), individual partners have the opportunity to shirk as significant information asymmetries between auditors and clients exist. This characteristic makes it inherently difficult to ascertain whether the individual partner devotes the required

effort (hours and quality of the effort) to audit engagements. This does not only challenge the clients but also, for example, reviewing partners who must assess the work of their colleagues. Each individual partner has an inherent incentive to shirk as his / her individual profit share only depends on 1/N of his / her individual performance (N being the total number of audit partners in the firm). Van Lent (1999) shows for one audit firm that it adopts a monitoring system, while survey evidence (Greenwood, Hinings, and Brown 1990) suggests that audit firms in addition use performance evaluation to manage individual partner performance. Lennox et al. (2018) note that audit partners are therefore "motivated to monitor each other" which monitoring is "less effective in corporations where most of the equity is owned by outsiders" (p.9).

Individual performance, information asymmetry: mutual monitoring

Reputation of the firm and individual auditors

To maintain their reputation for independence and audit quality, audit firms have adopted at least three mechanisms to incentivize individual partners: its profit-sharing system, (mutual) monitoring, and performance measurement. Audit firms generally employ profit-sharing systems wherein individual audit partners are awarded shares out of firm profit. Individual audit partners may conduct a variety of activities that affect the (future) profitability of their firms. In this section, we emphasize the reputation of the audit firm as the pivotal determinant of (future) profitability.

In large audit firms, a profit-sharing system may not provide sufficient incentives to prevent individual partners from putting their firm at reputation risk. Especially in a large partnership, individual partners may make decisions that can be highly profitable if worked out positively, but harmful when the dire scenario unfolds. The profit-sharing system, however, features an implicit quality control mechanism as it is costly to the collective if one auditor makes decisions that jeopardize the reputation of the whole partnership. Individual

partners may, in general, put the profitability of the audit firm at risk. To deter individual partners from taking such risks, audit firms deploy (1) direct monitoring systems and (2) performance measures that gauge whether individual partners make such (undesired) decisions.

Monitoring system

The monitoring system pertains to the audit engagements individual partners are involved with. As individual decisions potentially affect all collective (future) profit pools, the collective of equity partners has incentives to monitor individual partners to assure that no partner makes decisions that may harm the reputation of the firm. For instance, Van Lent (1999) argues for the firm he examined that (two) other partners have to approve a going-concern opinion before an individual partner can release this opinion. In addition, audit firms have quality assurance systems in place to gauge the quality of the work, both during and after completion of an audit engagement. For example, the so-called "hot file reviews" are conducted during the audit engagement and before the auditor's report is issued. The prime objective of these hot reviews is to assure that the audit engagement is conducted in accordance with relevant auditing standards and that the audit team pursues the engagement's objectives appropriately. Audit firms also conduct cold file reviews or cold reviews to examine whether the audit team (and the lead partner) perform their work according to the firm's quality control procedures and systems. The audit firm's monitoring systems inform the audit partner performance management system, which by itself is a monitoring system too.

Performance measures

Performance measures present a second means to guarantee that individual partners make congruent decisions. Performance measures[2] provide a more indirect means to monitor

[2] The performance measurement systems may encompass a large variety of activities including acquisitions (proposal success rate), networking, publications, position on professional boards, client portfolio management,

the decisions individual partners make. That is, the outcomes recorded by each metric provide a signal to the firm about the extent to which the individual partner contributes to firm objectives.

Performance levels gauged by these metrics may or may not have significant consequences to the compensation of the individual partners. These consequences depend on how steep performance levels and compensation levels are related, i.e., the incentive intensity (e.g. Milgrom and Roberts 1992, 221). In case the intensity is low, individual partners may see their income increase even if they report adverse performance measures by their metrics. This is true as rewards are typically related to the firm-level performance where each partner acquires profit-sharing-points based on competence[3] and performance.

The interplay between individual performance levels and profit share

Since partners are the residual claimants in the firm, partnerships must decide on what basis each individual partner should be granted a profit share. In their model, Levin and Tadelis (2005) examine how corporations differ from partnerships when the firm makes an addition to its labor force. Where it is sufficient for corporations to expand its labor force if firm profit rises with adding a new employee, the requirement to be fulfilled in the partnership is that the average profit remains untouched (or rises). Given the profit-sharing system, partner income is dependent on the performance of other partners on a continuous basis. The firm's monitoring and performance measurements system may help audit firms to ascertain whether this is the case.

There are ample reasons why audit firms want to ascertain what the contribution of individual partners is and to make sure that performance-based pay systems affect the

professional expertise, audit quality, financial management of client portfolio, management of audit teams, coaching of team members, behaviour towards colleagues and subordinates, and effort (Van Lent 1999).

[3] The audit firms apply the label competence level of competency to reflect seniority of audit partners. Competency reflects the level complexity and leadership of individual partners.

decision-making process. Dekeyser, Gaeremynck, Knechel, and Willekens (2019) find a negative association between compensation and audit quality measured by discretionary accruals, discretionary revenues, and abnormal working capital accruals. Ernstberger, Koch, Schreiber, and Trompeter (2019) find in Germany that partners who share in a small profit pool and partners whose compensation is highly variable produce lower levels of quality measured by discretionary accruals. Lennox, Wang, and Wu (2018) find that larger ownership stakes (i.e., capital at risk) motivate audit partners in their review role to monitor audit quality more closely. On the other hand, larger ownership stakes do not seem to motivate audit engagement partners to improve the quality of their audits, Lennox et al. (2018) find. Greenwood et al. (1990) observe that audit firms put performance measurement systems in place to establish the contribution of individual partners. Knechel, Niemi and Zerni (2013) find that audit firms do respond with an income cut when quality issues surface. They also find that audit partners' competence levels relate to compensation: those who service large clients, specialize, and acquire new clients are awarded higher compensation.

While these findings indicate that individual performance levels matter, the studies do not reveal what these performance measures are or how performance measures are used to determine compensation levels. Indeed, the auditing literature does hardy provide any evidence on how performance measures are designed in the partnerships (Lennox and Wu 2018). Some evidence put forward in the management accounting literature may be informative to help predict how these performance measures may be structured. Bouwens and Van Lent (2007) find, for instance, those performance measures are used for two separate purposes: career steps and variable pay. Campbell (2008) shows that the performance measure of service quality in a fast-food chain is an important determinant of promotion and demotion decisions, while financial performance is an important determinant of exit decisions. He also finds that service of managers who proceed above the promotion threshold deteriorates as

their service performance is no longer useful to advance their career. A recent study by Knechel, Mao, Qi, and Zhuang (2019), suggests that the specific partner's contribution to the audit firm affects his / her income. They find that competence levels measured as the auditor's revenue-generating ability and audit quality are negatively related to the likelihood that partners leave the audit profession. In terms of contribution, they find that the audit firm loses clients when partners depart, while, if they stay, firm auditees pay lower audit fees.

Taken together, the literature suggests that audit firms may benefit from keeping track of the contribution of individual partners to firm-level achievements. The activities affecting these contributions of individual partners vary as they include, in addition to conducting audit engagements, "such elements as staff development, rain-making, and civic involvement" (Huddart and Liang 2003). While audit partners are compensated and motivated by profit-sharing schemes (Levin and Tadelis, 2005) and individual performance measures are likely playing a role to decide on pay (Huddart and Liang 2003), Huddart (2013) observed that "theories that relate compensation arrangements to recruitment, retention, and effort remain largely untested in the partnership arena". Lennox and Wu (2018) observe that we have a very limited understanding of how partners are compensated and how audit firms measure partner performance. They continue to argue that "the extant literature has mostly explored one dimension of profit-sharing schemes (i.e., large versus small profit pools)" and "encourage researchers to explore other dimensions of partner compensation, such as the performance metrics that firms use to determine partner compensation and the weights accorded to those metrics". One important finding in Knechel et al. (2013) is that partner income "is more sensitive to performance-related incentives, such as attracting new clients, as partners progress in their career". They also find that the size of a partners' clients is related to a partner's compensation. As their study suggests partners may advance their career if they are able to attract and audit bigger clients, it implies that compensation of auditors depends on at least

two factors: their seniority or competence levels and their performance given their level of seniority and competence. This expectation is reflected in the following hypothesis:

H1: Pay levels of audit partners are to a significant extent explained by individual performance in addition to competence levels.

The activities individual partners perform are by nature similar. However, the complexity of these activities is arguably larger for senior partners vis-à-vis junior partners. This relation is reflected in Knechel et al. (2013) who find that the size of the client matters in terms of the level of compensation. Still, the firm must establish which partner is able to deliver an audit for more complex clients. That is, the firm does not want to run the risk of promoting a partner whose skills are insufficient to deal with the next level of complexity. Given that activities of senior partners are similar but more complex than those performed by junior partners, it is likely that current performance is an appropriate indicator of such potential. We therefore expect that current individual performance is predictive of future competence levels and propose to test the flowing hypothesis (we follow firm practice and refer to competency level rather than to seniority):

H2: Future audit partner competence levels are associated with previous levels of performance.

While current performance levels may affect variable pay and future permanent profit shares, it is still important that the firm can take actions against individual partners whose actions potentially affect the reputation of the partnerships and thus the income potential of all partners. It appears that partners are sensitive to incentives to affect their wealth. Lennox, Wang, and Wu (2018) for instance show that individual partners with a high equity stake put in more effort in reviewing the quality of their peers' audits, compared to their counterparts with a lower equity stake. The work by Lennox et al. (2018) suggests that partners care about the amount of wealth that is at stake. In case that a partner reports subpar performance the firm

may demote or may even decide that the partner has to go – irrespective of any immediate effect of an audit partner's performance on his / her compensation or profit-share (H1). Provided that the firm can observe the adverse performance, partners whose performance unfavorably affects the profit potential of the firm are likely to be called out to see whether their performance can be improved and if not will be demoted or asked to leave their position. To the extent that audit firms observe individual partners adversely affect the profit potential, it will be reflected in their individual performance measures. Given the importance audit firms attach to the contribution of each partner, we expect that adverse performance reflected in the performance metrics is associated with partner retention. We therefore propose to test the following hypothesis:

H3: Adverse performance has a negative association with audit partner retention.

SAMPLE AND DATA

Our data is comprised of firm-level compensation policy descriptions and actual performance and compensation data from three years over the period 2007 to 2017 from the Big 4 and two mid-tier audit firms in the Netherlands.

The Dutch institutional setting is of specific relevance to this study given the public debate on the topic over the past decade (e.g. NBA 2014) and the recent regulatory change on implementing financial incentives for audit quality. Specifically, new regulation requiring the remuneration system of the audit firms, including their profit-sharing system, to appropriately reflect audit quality incentives (Article 18b of the Dutch corporate law on audit firm supervision). The six audit firms we focus on in this study are responsible for the majority of the audit engagements in the Netherlands. According to the Netherlands Authority for the Financial Markets (AFM) report, in 2014, the Big 4 firms on their own are in charge of around 90% of all statutory audits of Public Interest Entities (PIEs) and almost 50% of all statutory

audits of non-PIEs. As a result, the Big 4 receive approximately 76% of all audit revenue among the statutory audits in the country (AFM 2014).

All data has been gathered through an information request of the Foundation for Auditing Research (FAR) to the audit firms in November 2017 and was released for examination after anonymization from the Dutch audit firms. We received full and original policies, plans, and procedures over partner performance management and remuneration systems applicable for the years 2007, 2012, and 2017. Meetings and firm visits are involved to check data validity. For some observations in 2007, we had to collect the data on site as relevant records were unavailable electronically. Descriptions in this paper originate from this policy data.

Our sample of actual performance and compensation data is comprised of 368 partner-year observations from 173 unique audit partners in three discrete years[4] over the decade 2007-2017. The financial years 2007, 2012 and 2017 are selected as sampled years to examine the changes in audit partner compensation in the wake of the 2008-2009 financial crisis and the extensive regulatory calls in 2014 to develop remuneration policies that better secure audit quality (European Union 2014; NBA 2014). We start by identifying available audit partners in the financial years 2007, 2012 and 2017 in the Dutch Big 6, leading to a pool of 762 valid partner-year cases. This partner pool is then filtered by the following criteria. First, we exclude partners who reach their retirement age before 2017. Second, we omit partners from the sample who are in their positions for less than a year i.e. entry partners in 2017. The filtered pool consists of 526 unique partners. Lastly, we randomly selected approximately one-third of the partners from the pool which forms the final sample of 173 unique partners, and 368 partner-year cases.

[Insert Table 1 Here]

[4] Data across continuous years is not supplied by the audit firms due to confidentiality concerns.

A detailed structure of the partner selection process and a sample composition across years and firms are presented in Table 1 Panel A and B. Data confidentiality and anonymity are ensured in such a way that information and analyses cannot be traced back to any firm or any individual partner specifically (e.g., we have replaced firm names by letters A to F randomly presented differently in each table or exhibit, generalized firm-specific language, and where needed normalized ranges in relation to, for example, earnings points, ratings, or competence groups). For the same reason, some descriptive statistics is only reported in total but not per firm. Therefore, any assumed resemblance is purely coincidental.

RESEARCH DESIGN

Our examination strategy comprises of two panels. In the first panel, we examine qualitatively how the compensation structure of the partners developed over the sample period of 2007-2017. In the second panel, we formally test our hypotheses using the actual payments, professional competence and performance evaluation, as well as partners' departure from audit firms.

Panel 1: Qualitative approach

In this approach, we describe the structures of the audit partner performance management and profit-sharing systems, and try to explore how the compensation structures evolved over time. Based on our hypothesis, we expect that audit quality measures and outcomes recorded in the formal measures gain importance over time. We operationalize our variables in a descriptive fashion. Specifically, we discuss how each firm determines its funds available for distribution among its partners. We then discuss how each firm establishes the profit share to which each partner is eligible given her/his competence and performance. Lastly, we analyze the role of performance measures and the extent to which individual performance, especially in audit quality, plays a role.

Panel 2: Quantitative Approach

Model Specification of Compensation for Performance

To quantitatively test Hypothesis 1, we aim to examine whether data supports the development of performance and compensation systems established in the qualitative analysis (Panel 1) using the following baseline model:

$$Compensation_{i,t} = \alpha_0 + \alpha_1 Competency_{i,t} + \alpha_2 Performance_{i,t} + CONTROLS + \varepsilon_{i,t} \quad (1)$$

This model estimates individual partners' compensation in alignment with firm policies – a function of each partner's competency levels and annual performance. Model (1) is tested in three sampled years separately. Under H1, we predict a positive relationship between compensation and performance ($\alpha_2>0$).

In the main tests, compensation is proxied by *Total_Profitshare*, the percentage of each partner's total pay in his/her firm-year profit pool. Of important note, as the actual amount of firm profit pools is not accessible for all sampled firm-years, we develop a proxy profit pool as the total amount of partner salaries paid in each firm-year in our sample. Hence, though not being the actual profit share, *Total_Profitshare* reflects each partner's relative pay level in the corresponding firm and year. The main test variable for competency is *Competency_Rating*, a score that reflects individual partners' competency levels at the beginning of each year. This score is derived based on the position each partner ranks among the competence framework according to his/her firm policies. Detailed discussions on competence framework policies are provided in Table 2. As policies vary across firms and years, we standardize all ratings into a 0-5 spectrum, with a higher score indicating higher levels of competence (i.e., seniority). An alternative measure for competency is *Competency_Rank*, reflecting a firm-year rank of individual partner's *Competency_Rating*, which is used for robustness checks.

The test our hypotheses we examine the relationship between compensation and aggregate performance rating (*Performance_Overall*) or specific ratings in the dimensions of *Clients*, *People*, *Firm* and *Quality*. We perform the latter test as each firm uses these specific measures in addition to overall levels of performance. The definitions of these specific metrics and their nature are summarized in Table 2 Panel B. Because one sampled firm embeds its *Quality* measure in *Clients*, we average *Clients* and *Quality* as *Clients2* for all other firms as a combined specific performance measure for *Clients* and *Quality*. Similar as competency, performance ratings are standardized into a 0-5 score, with a higher score representing better performance. To test for robustness, we use performance ranks rather than performance levels of individual partner's performance ratings in his/her firm and year (*Performance_Rank*, *Clients_Rank*, *People_Rank*, *Firm_Rank*, *Quality_Rank* and *Clients2_Rank*). For the one firm which does not adopt overall performance measures, we proxy their overall performance assessment results using weighted average scores from their specific performance ratings.

In line with extant studies (e.g. Francis 2004; Hay, Baskerville, and Qiu 2007; Zerni 2012; Hardies, Breesch, and Branson 2015; Goodwin and Wu 2016), we control for partner demographics (*Age*, *Gender*), workload (*ln_Engage*), home office location (*Location FE*) and expertise (*Expertise FE*) as they may affect partner compensation. Auditor fixed effect (*Auditor FE*) is also introduced to consider for unobservable differences across firms. Formal definitions of each variable are available in Appendix A.

Model Specification of Promotion and Retention Following Adverse Performance

In order to test Hypotheses 2 and 3, we specify the following two baseline models for partner promotion and retention:

$$Competency_{i,t+1} = \alpha_0 + \alpha_1 Competency_{i,t} + \alpha_2 AdversePerformance_{i,t} + CONTROLS + \varepsilon_{i,t} \quad (2)$$

$$Exit_{i,t} = \alpha_0 + \alpha_1 Competency_{i,t} + \alpha_2 AdversePerformance_{i,t} + CONTROLS + \varepsilon_{i,t} \quad (3)$$

Data from three sampled years are examined separately for both models. Under H2 and H3, we expect partners' adverse performance to be negatively associated with future competence levels (seniority) ($\alpha_2<0$ in model (2)), and positively linked with the likelihood of future departure ($\alpha_2>0$ in model (3)).

In Model (2), the dependent variable reflects an audit partner's competency level following the performance evaluation year. In Model (3), Exit equals 1 if an audit partner leaves his/her position within 5 years after the performance evaluation year[5]. Same as in Model (1), competency is measured as *Competency_Rating* in the main tests and as *Competency_Rank* in the robustness checks. We define adverse performance as partners that score below-average results, both for overall evaluation, *Performance_Bad*, and for specific assessments, *Clients_Bad, People_Bad, Firm_Bad, Quality_Bad* and *Clients2_Bad*. To safeguard results robustness, we alternatively specify adverse performance if a partner performance ranked below firm-year median, both in terms of overall performance, *Performance_RankBad*, and performance in specific areas, *Clients_RankBad, People_RankBad, Firm_RankBad, Quality_RankBad* and *Clients2_RankBad*.

In addition, we control for partner characteristics that may affect partner departure and promotion, namely age (*Age*), gender (*Gender*), workload (*ln_Engage*), home office location (*Location FE*) and general expertise (*Expertise FE*). Lastly, both models include auditor fixed effects (*Auditor FE*) to control for cross-sectional variation.

[5] For evaluation year 2017, Exit equals 1 if an audit partner leaves the firm by 2018 (last sample year).

RESULTS

In this section, we describe the results of our paper and use two panels to examine our hypotheses. In panel 1 we discuss the qualitative results and in panel 2 the quantitative results. We will use these two pieces to examine the extent to which the data support our expectation.

Panel 1: Qualitative Analysis

Recall from the theory section we expect that the audit firms put a performance-based pay system in place. Consequently, we distinguish in this section between: (1) the audit partner performance management system and (2) the audit partner compensation and profit-sharing system, as two mechanisms for audit firms to incentivize and control individual audit partner performance. In this section, we describe how these two systems have evolved – policy-wise – in the six largest audit firms in the Netherlands over the past 10 years. Following our hypotheses, we are specifically interested in analyzing (1) how audit partners' performance is measured and evaluated, (2) the extent to which partner compensation and profit-sharing depend on individual partner performance, and (3) to what extent adverse performance, e.g., regarding audit quality, affects performance evaluation, compensation levels and the position of audit partners.

How are audit partners' performance targets measured and evaluated?

Table 2 Panel A describes the policy development of the audit partner performance management cycles of the firms over the period 2007 to 2017. Consistent with our first hypothesis, we find that all audit firms in our sample have implemented a performance management system for their audit partners. This generally means an annual cycle of target setting at the beginning of the year, performance evaluation at the end of the year, and – following from that – setting of new targets and (personal) development objectives for the next year(s). Most of the firms have done so since the start of our analysis (2007), although policy development does differ between firms. For instance, while performance evaluations

for audit partners occur twice a year in firm C since 2007 or earlier, firms A and B implemented “mid-year” performance evaluations by 2012. The other firms apply a “year-end” partner performance evaluation meeting, although performance evaluations were not yet mandatory at all (but “expected”) for audit partners in firms D by 2012.

Performance rating

Performance evaluations are generally based on a partner’s self-assessed performance and one (or more) evaluator(s) rated performance on a set of performance measures, personal strengths and weaknesses, and development goals and needs. The evaluators generally are two other partners that rank at least one level higher in terms of (functional) hierarchy, for example in the function of business unit leadership or a management board (either in the auditing line of service or overall firm management board). Such performance evaluations generally result in an “overall” performance rating ranging from “unsatisfactory” or “below expectation” to “excellent” or “exceeding expectations” on a four- or five-point scale, as well as in a rating on each of the main performance areas: for firm C and F since 2007 or earlier, for firms B and E by 2012, and for firms A by 2017, while firm D applies qualitative assessments on the sub-measures. In addition, some firms (firm C since 2007 or earlier and firms A and B in 2012 and 2017) impose a “forced distribution: in the aggregate of their partner “overall” evaluations (e.g., five to 10% of partners are to be rated at level one (lowest); 20% at level two, 40 to 50% at level three, 20 to 30% at level four, and five to 10% at the higher level five).

[Insert Table 2 Panel A here]

Performance measures

The set of performance measures can be broken down in four main dimensions for all six audit firms: clients, people, firm, and quality.[6] However, the breadth, depth, and detailed policy descriptions vary per firm. For example, firms describe the *client* performance area as "markets", "market leadership and growth", or "client service and delivery", which may include client satisfaction (e.g., a "net promotor score"), relationship management, market or industry position, sales and business development (e.g., "Exceptional client service and audit revenues won and audit pipeline"). The *people* performance entails personal development as well as development of colleagues. The notions referred to are "people engagement and teaming", "people leadership", or "talent and teamwork", "developing and coaching future talents", "dedication and commitment", "developing yourself", and "developing others within the firm". The *firm* performance area is generally referred to using terms such as "accelerated growth", "operational excellence", "financial performance", and "growing the firm" (including, for example, productivity, revenues, margin, portfolio management, and risk management). Noteworthy is that, other than the other three performance areas, *firm* is generally measured at different levels varying between the individual partner, the office, and the line-of-service and is often benchmarked against best-in-class or average financial performance. The *quality* metric is called "eminence and quality" in one firm or "quality and effective risk management" in the others.

Table 2 Panel B presents a more complete description of the performance measures included in each of these four performance areas. Note that the breadth and levels of detail differ among firms, while labels appear under different dimensions in different firms (e.g., client satisfaction appears under clients in one firm and under quality in another). Furthermore, the performance measures employed differ in terms of quantitative versus

[6] Note: performance measures are grouped to these four areas for two firms that apply six main performance measures and the quality metric is presented separately, but is part of the *Clients* performance area in one firm that applies three main performance measures (not disclosed for reasons of confidentiality).

qualitative measurement. For example, performance measures such as quality reviews, contribution to audit quality initiatives, and roles in professional bodies are more objective metrics and are based on measurements that occur systematically. The same holds true for employee turnover, audit revenues, and productivity. Metrics such as client and employee satisfaction and team leadership are harder to assert as such factors are measured in a less systematic fashion (e.g., an employee satisfaction survey may be done annually and client satisfaction surveys once every three years). Performance measures such as quality, tone at the top, professional skepticism, and acting in the public interest would require the highest level of judgment and qualitative assessment and are more subjective by nature. Note that the set of performance measures encompasses the full circle of activities performed in an audit firm: input (e.g., development and retention of talent), process (e.g., knowledge sharing, partner involvement), and output (e.g., quality reviews) (Francis 2011; Knechel, Niemi, and Zerni 2013).

[Insert Table 2 Panel B here]

Audit quality performance measure

The *quality* performance area has developed more distinctively over the last decade than the other three performance areas. In 2007 and 2012, quality was defined in relatively generic terms across the firms. For example, "strengthening public trust, enhance reputation, and build the brand" or "demonstrating technical and industry expertise, promoting quality and managing risk appropriately, and providing relevant insight and demonstrating understanding of client issues". One of the firms defined quality in their performance evaluation forms as being the "strategic quality of the client portfolio" up to and including 2012. However, all firms have developed and refined their definition of audit quality performance areas and measures in recent years. For example, audit quality is explicated to include audit engagement quality reviews, client satisfaction surveys, permanent education, technical accreditations,

compliance with risk management, and contributions to quality improvement initiatives of the firm, and may include a number of "audit quality indicators". Most substantially, firm C has introduced a "quality dashboard" to assess audit partners' quality performance, comprising over ten metrics, such as quality review outcomes and follow-up of findings, quality tone at the top, compliance, being a lecturer, consultation behavior, and attendance of mandatory technical training. Measurement of these metrics is based on qualitative and quantitative input from different functions throughout the firm (e.g., input from the audit firm's technical department on an audit partner's consultation behavior, reported to audit firm management as input on partners' evaluations).

Furthermore, as illustrated in Table 2 Panel A, for some firms these ratings have developed into differentiated weightings of, for example, audit quality relative to other performance areas. Specifically, by 2017 audit quality performance ratings weigh 40% compared to 20% for each of the other three performance areas at firm A. Policy at firm E states that quality should at least be at par and that "revoking a partner's audit license is possible in case quality issues sustain". Finally, a non-compliant outcome of an audit engagement quality review results in a performance rating on the client performance area not exceeding the second-lowest level for partners in firm B (with that impacting an audit partner's current year compensation).

Consequences of performance

While according to the policy documents, individual partner performance in the four performance measure dimensions of client, people, firm quality purportedly has an impact on a partner's current year compensation for some of the firms, evaluations generally result into setting new targets and/or (personal) development objectives for the next year(s). Furthermore, audit firms' policies are quite clear that multi-year adverse performance can result in partners being asked (or forced) to accept an alternative position within the firm or to

resign from being a partner with the firm. For example, "revoking a partner's audit license is possible in case quality issues sustain" or "demotion is possible in case of performance issues for two years in a row and resignation in case of quality issues for two years in a row". This implies that irrespective of its effect on audit partner compensation, an audit partner's performance evaluation has real consequences by itself. For example, firm F applies an equal sharing profit-sharing-system, but nevertheless already had the most granular performance evaluation system in place in 2007 (jointly with firm C), resulting in performance ratings on each of their main sub-performance target areas. Noteworthy is that the performance evaluation for partners in firm F still now does not result in an "overall rating", possibly because this is not needed as input in their "equal sharing" profit-sharing-system.[7]

How do audit firms share their profit amongst their audit partners?

We find that the profit-sharing-systems come in three types: (1) performance-based profit-sharing within "classes" of partners based on a competency framework, on the one hand; (2) full equal sharing of profits, on the other; and (3) equal profit-sharing within "classes" of partners based on a competency framework, as a "hybrid" of the first two. Table 2 Panel C summarizes how audit firms share profits amongst their partners and how audit partners' compensation is determined. For each of the six audit firms in our sample, we further show how partner compensation policies have developed over the past decade. We start the overview with policies in 2007 and illustrate if and how these policies have changed in 2012 and 2017 (all else equal). Before we analyze differences in profit-sharing-systems across firms, we note that across all firms, an audit partner's profit share is based on a number of "units" and the "unit value" is based on an aggregate audit firm-level profit pool (i.e., profit of

[7] At firm D, on the other hand, audit partner performance evaluations results in an "overall rating" only, while this firm applies qualitative performance assessment on the sub-performance measures.

more than the audit line of service alone) divided by the total number of units attributed to partners of the firm.

[Insert Table 2 Panel C here]

Competency "classes"

Both performance-based and equal profit sharing "within classes of partners" (profit sharing systems 1 and 3 above) are based on a competency framework (but differ in the weight of a partner's individual current-year performance in determining his / her profit share – see later). The competency framework reflects different levels of seniority and responsibilities, for example ranging from competence group A for base-level partners to D for senior partners – and often sub-groups within these competence groups (e.g., A1 to A6). Each of these (sub-) competence groups are defined by skills, competencies, and other criteria a partner should meet, and / or roles and responsibilities a partner has. Firms generally assign their partners to these "classes" at the beginning of each year (e.g., firms A and B) or once every two to three years (e.g., firms C and D) and is by large irrespective of a partner's one-year's performance (as evaluated). However, a partner's performance over the years does affect a partner's assigned "class", as such multi-year performance signals whether a partner has the skills, competencies, and experience to be promoted (or not) to a higher class with increased responsibilities and roles. Firms have generally allocated a fixed number of profit-sharing units. For example, firm D allocated 200 to 320 units for the junior class (with three sub-classes), 380 units for the base partner level (level four), from 475 to 780 for development-classes five to eight, and up to 900 units for group nine for exceptional roles and responsibilities. In other words, partners within each of these classes are allocated the exact same number of units and, hence, share equally in the firm's profit – irrespective of a partner's individual current-year performance. This competence-based allocation of profit-sharing units is denoted "competency-based compensation" or "competence rating" in this study.

Equal profit-sharing within "classes" of partners based on a competency framework

From our interviews, we learned that all firms establish the performance of individual partners. While the variation in individual performance is rather limited, it takes the audit firm considerable effort and thought to decide on this number. In most cases, the focal partner proposes a score to the geographical and business leader who subsequently propose a rating to a performance appraisal committee. This committee has the final say over the score.

Firm D's profit-sharing-system qualifies as an "equal profit sharing within classes of partners" (system 3) and hasn't changed over the sample period. Its policy documents note that the bi-annual competence group mapping instills "that promotions are not depending on one-time success or failures, but on sustainable performance and contributions over a number of years". The profit-sharing system of firm A can also be categorized as an "equal sharing within the same class" system, but in this case four competence classes are added to reflect differing roles and responsibilities, while the firm additionally applies five to eight "maturity levels" (five maturity levels for their base competence class, eight maturity levels for the higher competence class). These maturity levels can be seen as in-growth of junior partners, reflecting growth in competencies, skills, and experience. Partners generally step-up one maturity level per year at par performance, after which all mature partners within the same competence group share equally. Firm A's policies state that "partner compensation within the same competence group is based on the same performance and contributions are expected from each of these partners within the competence group". This means that a partner's income in firm A is relatively stable and predictive (not dependent on current-year performance). This seems to have been the case as from 2007 (or earlier), although the competence classes have been further developed in terms of concrete competencies, skills, roles and responsibilities.

Similar as in firm A, a partner's profit share in Firm C is primarily based on his or her mapping in three competence classes. Over the sample years, firm C has reduced the role of current-year performance to determine a partner's profit-share. Where a partner's overall performance for the year directly determined the number of units awarded in 2007, by 2012 the firm replaced this system with a cash bonus system: 10% of the firm's profit pool was to be reserved for cash bonuses based on current-year performance, which could be awarded to a maximum of 45% of the partners. By 2017 a partner's income for the year is not only fixed within the "class", but also known at the beginning of each year based on a "reference profit-pool" based on the firm's previous year's profit. In addition, a further decreased part of the profit pool of 2% is available for variable income for 5 to 10 percent of partners. This variable income element of the incentive system is to award "exceptional results", which "should reward exceptional actions (…) while top ratings do not automatically justify an award". This means that firm C's profit-sharing system has largely developed over the last decade into an "equal profit sharing within classes of partners" system (system 3).

Performance-based profit-sharing within competence "classes" of partners

Firm B's profit-sharing system in large parts is also based on competence units. In 2017, these competence units reflect 17 sub-classes over four competence groups, which range from 25 to 35 units for group 1; 40 to 60 units for group 2; 70 to 97.5 units for group 3; and 107.5 to 180 units for group 4. However, firm B also applies a "performance multiplier" on a base number of "performance units" (45 to 55 for group 1; 60 to 80 for group 2; 90 to 117.5 for group 3; 127.5 to 200 for group 4). The firm's policy documents note that this is geared "to emphasize that those who actually perform very well receive a substantially larger profit share than those whose performance is average or below average". This performance multiplier depends on a partner's current year performance evaluation, in 2017 ranging from nil for the lowest annual rating to 1.67 for the highest rating per each of the main performance measures.

This means that a partner with the highest ratings on all performance measures can be awarded 167% of the base number of "performance units" while a partner in the same competence group, but with the lowest performance ratings is awarded with no "performance units" at all (thus being left with "competency units" only). Noteworthy is that this multiplier was steeper for competence group 1 (amongst which are the junior partners) in 2012 (2.00, 1.67, and 1.46 for the highest rating in competence groups 1, 2, and 3 respectively) compared to 2017 (1.67 for all competency groups). Given the distinctive impact of an individual partner's current-year performance evaluation, we categorize firm B's system as performance-based profit-sharing within "classes" of partners (system 1).

Full equal sharing of profits

Full equal sharing means that all partners share equally in the firm's profit. Firm F applies such a system, where the base number of units is equal for all partners irrespective of role and responsibility. However, incoming partners start at approximately 60% of base units, growing to 100% in 7 years (10 years in 2007). This firm too reserves a part of the profit-pool for monetary bonuses but has decreased its size from 20% in 2007 to 10% in 2017. The basis of the profit-sharing system of firm E can also be categorized as full equal sharing of profits (all partners receive the same number of base units, irrespective of role and responsibility). However, firm E also applies a relatively steep slope of in-growth of junior partners: incoming partners start at 25% of base units, growing to 100% in 7 years. It is noteworthy that this firm abandoned its 10% monetary bonus scheme by 2012 – based on interview we learned it was felt that this system did not fit the philosophy of the firm or equal sharing. Nevertheless, this firm E did implement a quality penalty to comply with the new regulation in the Netherlands.

Audit quality bonus and penalty

Current-year performance can impact a partner's current-year compensation at all audit firms in our sample when it concerns the so-called "audit quality penalty". In terms of an

explicit financial incentive for audit quality, firm B has imposed an audit quality penalty over the whole 10-year period, in that a non-compliant outcome of an audit file quality review would result in an overall client & quality-performance rating that cannot exceed the second-lowest of five rating levels, which in turn directly affects a partner's income through the performance multiplier (see earlier). In addition, firms B increased the weighting of the client & quality performance metric in 2017 compared to 2012 by applying a 50:25:25 weighting of the performance measures (clients and quality jointly, people, and firm respectively), compared to 1/3rd each in 2012, which again increases the potential effect on a partner's income through the performance multiplier.

Firm A and C had included an audit quality bonus/penalty in their policies by 2012 and firms D, E, and F by 2017. Based on the policy documents, we find four forms of financial incentives attached to levels of audit quality which can be applied individually or in combination: (1) a monetary audit quality penalty (for example, a quality penalty of a maximum of EUR 30,000 at firm F); (2) an audit quality in a percentage of a partner's full cash bonus (e.g., 100% at firm F) or profit share (e.g., a penalty of maximum of 25% of a partner's allocated profit share in case of the second lowest or lowest rating levels on the quality performance measure at firm A – while at the same time the potential for a discretionary bonus has been made less automatic); (3) an audit quality penalty in terms of "capping" of a partners overall performance rating in case of sub-par quality performance (for example, when audit quality is under par, the overall performance rating is lower irrespective of performance on other areas at firm C; and (4) an explicit bonus: a variable pay rewarded only in exceptional cases (e.g., in 2017 firm B added a quality bonus to their long-existing penalty: in case the quality component is rated on the (second) highest of five levels, the overall client-performance measure is also at least at the second highest rating level (again affecting a partner's income directly through the performance multiplier). It should be noted

that the audit quality impact can be more or less direct and significant, because the actual impact depends on “multiples” and distribution of units over performance, responsibility, and contribution.

A partner’s capital contribution

On a final note, based on our current understanding we find that all firms, except for firm A, require their partners to provide the firm with a capital contribution to be paid in full upon when the partner assumes his/her position. This contribution ranges from EUR 200,000 (firm B) to EUR 500,000 (firm D) and is generally refunded when the partner retires. This does not only illustrate that audit firms at least in part generally depend on their partners for financing, but also that partners generally have a financial stake at risk in the audit firms in which they are partners. Firm A does not require a capital contribution from its partners but applies one of the steepest slopes of in-growth for their junior partners: incoming partners start at 25% of base-units, growing-in to 100% of base units over six years (at par performance). Noteworthy is that firm E applies a similar slope for incoming partners (25% to 100% over seven years) in addition to a capital contribution requirement of EUR 300,000. The firms with this capital contribution requirement request this amount in full at the beginning of the partnership. Given the competence-based pay schedule, this practice would suggest that partners make a lower ROI than senior partners do.

Discussion of the development in partner income

The performance appraisal systems appear to have become more formal over time. The qualitative data implies that firms have tried to develop performance measures that better reflect performance of their partners in terms of how their endeavors contribute to firm value. We observe that the commercial success as an indirect measure of audit quality has lost territory while a more direct measure of audit quality as in findings reflected in quality reviews, and for some firms more broader quality dashboards or metrics, have gained

importance. From 2007 to 2017, while an audit partner's performance decreased in weighting in determining the profit share and monetary bonuses have become less feasible to get awarded, audit quality has become more influential on an audit partner's performance. In addition, all firms have implemented a form of an audit quality bonus/penalty system. Hence, adverse performance, specifically in relation to audit quality, increasingly affects performance evaluation and compensation levels of audit partners.

From the discussion above, it would appear that periodic outcomes captured in the metrics of client, people, firms and quality and the sum of these metrics in aggregate do affect the compensation (H1) of individual partners and that performance measures do affect partner promotion, demotion (H2), and retention (H3).

Panel 2: Quantitative Analysis

In this section, we describe the results of the statistical tests we ran to examine our hypotheses. We start with a discussion of the descriptive statistics and then turn to the regressions that we use to examine our research questions.

Descriptive Statistics

Descriptive statistics of our main research variables and control variables across financial year 2007, 2012 and 2017 are presented in Tables 3 to 4.

[Insert Table 3 Here]

Table 3 presents an overview audit partner individual compensation, assessed competency and performance results over the last decade. The average total compensation (*Total_Pay*) among the Big 6 audit partners in our sample has been relatively stable at around €422,000, while the Kruskal-Wallis test suggests that a significant difference in pay levels exits between Big 4 and non-Big 4. The standard deviation in the total pay is between 37% and 46% of the average total pay, and the spread in total pay (maximum *Total_Pay* minus

minimum *Total_Pay*) ranges from approximately €900,000 to €1,079,000. Care should be taken while interpreting descriptive statistics on *Total_Profitshare* given firm profit pool is proxied as the total amount of partner compensation paid per firm-year in the sample. In other words, *Total_Profitshare* only reflects the relative compensation levels of individual partners when compared within the same firm and year. Based on this sample, the percentage of audit partners departing their firms within each 5-year interval ranges from 12% to 17%, with minor differences between Big 4 and non-Big 4.

Corresponding to policy analysis above, competency ratings have been employed in all firms to determine partner pay over the years, while an improvement in the usage and variety of yearly performance evaluations can be seen. In 2007, current year performance is evaluated for only 55% of the partners, while the coverage increased to over 95% in 2017. Assessing partners' performance in specific dimensions has also grown in prevalence across the years. Although the specific dimensions for most firms can be roughly categorized into 4 metrics (*Clients, People, Firm* and *Quality*), one firm embeds audit quality as an inherent criterion for clientele management.

The average competency ratings range from 2.3 to 3 over the decade. As indicated by the Kruskal-Wallis test statistics, there are significant differences between Big 4 and non-Big 4, possibly due to compensation policy differences (e.g., the "steepness" of competency development scales) and policy changes over the years. Scores awarded for current year performance, both overall and specific evaluation, are not always symmetric around the average results.

[Insert Table 4 Here]

Information on audit partners' demographics, workload, general home office location and general expertise is summarized in Table 4. Audit partners on average are becoming older over the years, while Big 4 partners generally are slightly older than non-Big 4 partners, with

the difference being significant in 2012. Male has been the dominant gender for audit partners across all firms and years. It worth noting that an improvement of gender equality can be observed in Big 4 partners, with the percentage of males decreased from 98% in 2007 to 89% in 2017. Meanwhile, audit partners sampled from non-Big 4 are all male. The number of audit engagements each partner is responsible for is employed as a rough measure for partner workload[8]. Consistently across years, audit partners on average are accountable for approximately 30 audit engagements each year.

Panel D offers interesting insights regarding partner geographical location and general expertise. The majority of audit partners are based on the west of the Netherlands, which includes several relatively more economically developed cities such as Amsterdam, Rotterdam and the Hague. We generalize partner expertise provided by audit firms into eight broad categories, as expertise classifications vary substantially across firms. Most audit partners specialize in Corporate Client cases, regardless of Big 4 or non-Big 4 auditors.

[Insert Table 5 Here]

Table 5 reports Pearson's correlation matrix among the main regression variables. It shows that partners' compensation levels (*Total_Profitshare*) are positively correlated with individual competence (*Competency_Rating* (T), coef.=0.61) and overall annual performance (*Performance_Overall*, coef.=0.15). Interestingly, except for audit quality (*Quality*, coef.=0.01), all other specific performance positively correlate with partners' profit share levels. The probability of departure (*Exit*) is positively related to adverse performance, both overall evaluation (*Performance_Bad*, coef.=0.21) and assessments in specific dimensions (*Clients_Bad*, coef.=0.14; *Firm_Bad*, coef.=0.14; *Quality_Bad*, coef.=0.18; *Clients_Bad*,

[8] Ideally, we would like to access further details for each engagement, such as billable hours and client size to measure work intensity. However, such information is unavailable at current stage due to confidentiality concern.

coef.=0.18), except for human resource management (*People_Bad*). Table 5 also exhibits that following adverse performance, both aggregately (*Performance_Overall*, coef. =-0.1) and specifically in firm operation (*Firm_Bad*, coef.=0.19) and audit quality (*Quality_Bad*, coef.=-0.2), partners are likely to be rated lower for competence, which accordingly to firm policies lead to lower fixed pay levels. Lastly, no multicollinearity problem (Kennedy 2003) is suggested by the analysis of variance inflation factors (VIF) as all VIF values are below 2 (untabulated).

Hypothesis 1

As shown in our correlation matrix (Table 5), we find positive and significant correlations between partner profit shares and all types of individual performance measures except for quality. These relationships are further examined year by year using model (1), and regression results are presented in Table 6. We find that after controlling for partner seniority (*Competency_Rating*), individual partner performance significantly determines partner's profit shares, where the significance levels of these metrics vary over time.

[Insert Table 6 Here]

Performance_Overall is positive and significant in the year 2007 (coef.=0.455) and 2012 (coef.=0.518), but not in 2017. On average, performance improvements with one-unit results in a 0.5% increase in total profit share in 2007 and 2012. With regards to evaluation results for specific performance, none of the dimension explains compensations in 2007, while clientele management and audit quality (*Clients*, *Quality*, and *Clients2*, in column (5) and (8)) are positively related with partner compensation in 2012. The coefficients of *Firm* and *People* are positively and negatively, respectively, significant in 2017, indicating that in 2017, partners whose performance in policy compliance is evaluated higher tend to receive higher compensation, while those who are assessed to devote more effort to creating teams are more likely to be compensated lower. Similar results accrue when performance is alternatively

proxied using rankings rather than ratings. Partners who gain one rank are awarded a 0.08% and a 0.04% increase, respectively, in total profit share percentages in 2007 and 2012.

Note that while in 2007, the relationship between *Total_Profitshare* and *Quality_Rank* is moderately negative, it turns to be significantly positive in 2012 but becomes insignificant in 2017. Here when performance is measured in rankings rather than ratings, the negative association between team management and compensation disappears, however the monetary reward for contributing to firm operation is still evident in 2012 and 2017. This evidence in sum suggests the association between partner compensation and audit quality has gained importance of the years.

[Insert Table 7 Here]

Overall, we conclude that the data supports Hypothesis 1 in that *Total_Profitshare* is explained by individual partner performance in addition to the level of partner seniority (*Competency_Rating*).

Hypothesis 2

Table 8 reveals the effect of adverse performance on next year promotions. While generally, partners' competency ratings in the following year are largely based on current year ratings, adverse performance brings significant negative influence on potential promotion. In column (1)-(3) where individual performance is assessed with an overall score, a below-average performance (*Performance_Bad*) in 2007 and 2012 negatively impacts partners' next year fixed pay levels, i.e. $\text{Competency_Rating}_{t+1}$. However, this negative impact is not evident using 2017 data. When performance is alternatively evaluated in specific dimensions, partners who do not comply with firm policies to the same extent as firm peers do are on average punished in 2017 for reaching less promotion potential (column 9).

[Insert Table 8 Here]

In the supplementary tests where partner performance and competency are measured as relative rankings rather than levels within corresponding firm and year, we confirm the evidence of a negative relationship between adverse performance and next-year evaluated competence, however the regressions produce statistically significant in 2012 and 2017 only. Among specific performance measures, the worse-than-average performance in firm operation lead the firm to punish their partners in 2012, while subpar performance in clientele management and audit quality bring significant negative effect on next-year promotion in 2012 and 2017 (column 8 and 9).

[Insert Table 9 Here]

Based on the results in Table 8 and 9, we conclude that our Hypothesis 2 is empirically supported in that adverse performance impacts the likelihood of getting demoted.

Hypothesis 3

Our third line of inquiry pertains to whether partners with subpar performance that potentially harm firm reputation and future profitability may have to leave their position. We test H3 using logistic regression model (3) and results are produced in Table 10.

[Insert Table 10 Here]

Our main interest is the association between *Performance_Overall* and *Exit*. *Exit* is an indicator variable which equals to 1 if a partner departs the position within five years (2007 and 2012 data) or two years (2017 data) after the performance evaluation year. Note that 'exiting' from the position is not equivalent to leaving the firm, as in some cases (seven) we observe that the departed audit partners were transferred to different departments within the same firm. Sample selection procedures, as well as qualitative information such as internal email records, are used to exclude natural turnovers from the sample, such as retirement or death.

Similar to correlations in Table 10, results in column (1) to (3) suggest that the likelihood that a partner leaves the position while reporting subpar performance is positive and significant in 2012 and 2017. Since coefficients are reported as the change in odds ratios, the economic interpretation is as follows: ceteris paribus, if a partner's overall performance in year 2012 is rated below firm average, then in the next 5 years, the odds ratio of this partner leaving the position (versus staying) increases by 117% (111% for 2017), regardless whether the departure is a voluntary or forced resignation. Only certain specific performance measures are found to predict future retention likelihood in certain years. Adverse audit quality (*Quality_Bad*) is positive in 2012 (column 5), and adverse human resource management (People_Bad) is positive in 2012 as well when clientele management and audit quality are measured as a single performance indicator (column 8). This indicate that the odds ratio of future departure for partners who produce subpar audit quality or performance worse than average in managing their teams in 2012 is increased by around 123%.

Additional results using alternative proxies for performance and competencies are summarized in Table 11. Consistent with results reproduced in Table 10, we find that partners who are ranked lower than the firm median in 2012 and 2017 are significantly more likely to depart their positions in the future. The predictive power of adverse human resource management (*People_RankBad*) for future departures remains high in 2012 (column 8). Lastly, the significant increase of pseudo R^2 from 2007 to the more recent years demonstrates the improved explanatory power of partner performance for future retention.

Therefore, we conclude that H3 is supported in that individual partners' adverse performance is positively associated with future departure, or negatively related with retention.

DISCUSSION AND CONCLUSION

Lennox and Wu (2018) argue that little is known of whether and how performance metrics play a role in motivating audit partners. In this study, we shed some light on the working of the incentive system for audit partners. We predict that under the equal profit-sharing system, partners have incentives to shirk as the costs of their actions accrue to all partners, while the benefits are reaped by individual partners. Given that the firm is able to measure individual partner performance, this agency problem can be mitigated. In addition, even if partners do their best, their effort may suffer from a lack of learning affecting their performance potential relative to other partners. Again, using metrics that gauge individual performance helps other partners to establish whether individual partners contribute positively to the firm.

The findings reported in this study suggest that audit firms do use individual performance measures to decide how much profit share each individual partner is entitled to. In addition, partners are eligible for a fixed share of the profit based on their competence (level of seniority). This competence-based profit share exists because the firm must make sure that the compensation reflects the expected contribution of its partners. This requires that equal levels of seniority ("competence classes") are in sync with the levels of compensation. For instance, partners who are trusted with the responsibility to audit large listed corporations are more senior than partners who audit smaller private firms. Their competence rating reflects this competence levels. We find that partners who achieve high-performance appraisals are also likely to be promoted to higher competency levels over time. That is, partners enhance their likelihood to be promoted to a higher bracket in the competency classes by achieving higher current performance.

Variance within each competency class is generally relatively limited (except for one firm), as audit firms set high expectation within each class of competence levels. This means

that performance has to be exceptional for partners to score above par. In addition, from the interviews we conducted, we learned that promotion decisions require a fairly intensive decision process. The limited variance in each competency class explains why individual performance levels only to a limited extent explain the current profit share and future competence levels. Note that current higher levels of competency ratings are positively associated with future competency ratings (see Table 8 and 9). This result suggests that the likelihood of getting promoted accelerates with every step into the next competency class. The fact that we find a negative association between subpar performance and future competence indicates that partners get demoted in case their performance is trailing.

Finally, we find that subpar performance is indicative of audit partners resigning from their positions. Such resignations do not necessarily entail partners leaving the firm. In fact, we found that in seven cases of partner departures, partners were actually transferred from the auditing department to another line of service (e.g., advisory or compilation services). This means that irrespective of its direct effect on audit partner compensation, an audit partner's performance evaluation has significant consequences for the individual partner.

Our qualitative analysis suggests that the importance of specific performance (e.g., audit quality) grows over time, for which we find weak support from our quantitative data. Further, we find no evidence in the quantitative data to conclude that individual performance in general has become more important over time, as the statistical results imply that the aggregate performance is less related to compensation in 2017 than in the preceding period.

In sum, the results would support the idea that audit firms do want to make sure that individual partners keep delivering desired levels of performance. That is, the audit firms do not rely exclusively on an equal profit-sharing system in the hope that each partner will put in sufficient effort, but use individualized performance measures to ascertain that their partners are actually delivering performance such that the profit generation potential of the firm is

retained. Scores on these individualized performance measures have real consequences as they determine the size of the profit share each partner is entitled to over the current period and in the future. That is, current individual performance affects current pay and the chances of getting promoted or demoted/dismissed in the following years.

A striking finding from this database is that audit firms use subjective measures of performance to establish the contribution to firm's objectives by individual partners. While individual items represent objective dimensions of performance (e.g., fees, productivity, number of hours of partner involvement, quality review scores), each firm establishes a performance rating that allows even for the more objective items to be interpreted before the recorded performance is impounded in the performance rating. The observation that the entire performance evaluation is subjective warrants further study in terms of how this affects audit partner motivation. Motivation may suffer for instance when subjectivity provides a means by which the implicit contract between the firm and the individual partner can be reneged on (e.g. Levin 2003).

Although our qualitative analyses show that audit quality metrics have gained importance over commercial metrics in audit partners' compensation, we find only weak evidence for the idea that public and social pressure led the audit firms to step up their effort overtime to make sure that they are able to explain pay levels to external stakeholders. This result suggests that audit firms give priority to assure that pay levels motivate their partners rather than that to better explain these pay levels to the outside world.

Of course, our results are subject to several caveats. In the first place, our data is limited as it was collected in intervals of 5 years. A more extensive dataset would have allowed us to make more extensive analyses. For instance, the availability of specific performance measures included in our sample varies depending on the development of the pay-for-performance practice over time. We also collect data reflecting performance levels and not the underlying

targets. Adding target data would have allowed us to develop more precise measures of performance than the levels of performance we apply in the study. Finally, we do not have direct data on the quality of the audit. Such data would have enabled us to further validate our results. Notwithstanding these limitations, we believe that our dataset provides a unique insight into the working of audit partner performance management and incentives systems in an audit firm. We admit that this paper only gives us some first insights that should help us better understand the working of incentives in partnerships.

Notwithstanding these limitations, we believe that our findings are consistent with existing theories and that the practices we describe are informative to academics and practitioners to understand how performance measures and incentives work in partnerships.

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Table 1 Sample Construction

Panel A: Partner Selection Process			
			Total
Number of partners available in financial year 2007			533
Number of partners available in financial year 2012			463
Number of partners available in financial year 2017			395
Average number of available partners per year			**467**
Total number of unique partners			762
Exclude: Retiring partners before financial year 2018			223
Exclude: Entry partners in financial year 2017			13
Total number of valid partners			526
Sampled partners (1/3)			**173**
Panel B: Sample Composition			
Number of Partner-Year Cases	**Big 4**	**Non-Big 4**	**Total**
Financial year 2007	87	17	104
Financial year 2012	104	25	129
Financial year 2017	109	26	135
Total	**300**	**68**	**368**

Table 2 Description of the Performance Targets and Evaluation

Panel A – How audit partners' performance targets are set and evaluated (i.e., rating and weightings)

	Partner performance management cycle	Performance target areas*	Performance evaluation
Firm A			
2007	Annual goal setting, performance evaluation, and development objectives for each of four areas of a "balanced score card".	• Clients • People • Firm • Quality	Performance evaluations take place during year-end partner evaluation interviews, based on a self-assessment and performance review, resulting into an overall rating ranging from 1 (highest / "Exceeds Expectation") to 4 (lowest / "Unsatisfactory").
2012	Idem.	Audit quality further defined as technical knowledge, process management, thought leadership, and knowledge sharing. All else equal.	Performance evaluations take place during mid-year and year-end partner evaluation interviews. All else equal.
2017	Idem.	Performance areas are redefined based on the firm's strategic objectives and balanced score card KPI's. Audit quality is explicated to include audit engagement quality reviews, permanent education, technical accreditations, compliance with risk management, and contributions to quality improvements of the firm. All else equal.	Performance evaluations result into a rating on each of the main performance areas and an overall rating. Audit quality performance ratings weigh 40% compared to 20% for each of the other three performance areas. The overall performance rating is expanded to a 5-step scale, from 1 (highest/"Exceeds Expectation") to 5 (lowest/ "Unsatisfactory"). All else equal.
Firm B			
2007	Annual goal setting, performance evaluation, and development objectives for each of the four areas of a "balanced score card".	• Clients • People • Firm • Quality	Performance evaluations take place during year-end partner evaluation interviews, based on a self-assessment and performance review, resulting into an overall rating ranging from 1 (highest / "Excellent") to 5 (lowest / "Below Expectation").
2012	Idem.	Idem.	Performance evaluations take place during mid-year and year-end partner evaluation interviews, resulting into a rating on each of the main performance areas and an overall rating. All else equal.
2017	Partners are expected to set two to five goals for each of the four areas of a "balanced score card", including how, next to what. All else equal.	Audit quality is explicated part of each of the performance areas. All else equal.	A non-compliant outcome of an audit engagement quality review will result in a performance rating on the client performance area non exceeding 4 (the second lowest level). Mid-year evaluation is optional. All else equal.
Firm C			
2007	Annual goal setting, performance evaluation, and development objectives	• Clients • People • Firm	Performance evaluations take place during mid-year and year-end partner evaluation interviews, based on a self-assessment and performance review, resulting into a

	for each of four areas of a “balanced score card”.	• Quality	rating on each of the four performance areas and overall rating ranging from 1 (lowest / “Significantly below expectation”) to 5 (highest / “Significantly exceeds expectation”).
2012	Partners are expected to set a maximum of eight goals for each of the four areas of a “balanced score card”. All else equal.	Idem.	Idem.
2017	Idem.	Audit quality further explicated to encompass audit engagement quality review outcomes, quality tone at the top, example behavior, employing the firm’s quality controls, and putting public interest centrally. A highest-level performance rating on the quality metric can be achieved if more than one of eight (but not necessarily all) quality KPI’s is met. All else equal.	Quality is assessed based on a quality dashboard (based on qualitative and quantitative input throughout firm functions) comprising over ten metrics, such as quality review outcomes and follow-up of findings, quality tone at the top, compliance, being a lecturer, consultation behavior, and attendance of mandatory technical trainings. All else equal.
Firm D			
2007	Annual goal setting and performance evaluation for each of four areas of a “balanced score card” and competence group development criteria.	• Clients • People • Firm • Quality	Performance evaluations (non-mandatory, but expected) take place during year-end and mid-year partner evaluation interviews, based on a self-assessment and performance review, resulting into an overall rating ranging from 1 (lowest / “Below Expectation”) to 4 (highest / “Exceeds Expectation”).
2012	Idem.	Idem.	Idem.
2017	Idem.	Audit quality further defined to include audit engagement quality review outcomes, client satisfaction surveys, contributions to quality improvement initiatives, and a number of audit quality indicators.	Performance evaluations are mandatory for all partners. All else equal.
Firm E			
2007	Annual goal setting and performance evaluation on each of four performance areas.	• Clients • People • Firm • Quality	Performance evaluations take place during a year-end partner evaluation interview, based on a self-assessment and performance review, resulting into an overall rating ranging from 1 (lowest / “Targets and growth not realized”) to 5 (highest / “Exceeding expectations and significant growth”).
2012	Idem.	Idem.	Performance evaluations result into a rating on each of three performance areas (firm, quality, and targets set) and an overall rating ranging from 1 (lowest / “Below Expectation”) to 5 (highest / “Exceeds Expectation”). All else equal.

2017	Idem.	Quality has been further detailed to include quality review scores, partner involvement, permanent education, and claims and audit deficiencies.	Idem.
Firm F			
2007	Annual goal setting and performance evaluation on each of the performance areas and a development cycle geared toward a partner's development at least every three years.	• Clients • People • Firm • Quality	Performance evaluations take place during a year-end partner evaluation interview, based on a self-assessment and performance review, resulting into a rating on each of the main performance areas ranging from 1 (lowest / "Has not met expectations at all") to 4 (highest / "Has consistently met or exceeds expectations"). There is no overall rating applied.
2012	Idem.	Idem.	Idem.
2017	Idem.	Idem.	The performance ratings are expanded to a 5-step scale, from 1 (highest / "Exceeds Expectation") to 5 (lowest / "Unsatisfactory"). All else equal.

* Note: performance measures are grouped to these four areas for two firms that apply six main performance measures and the quality metric is presented separately,but is part of the *Clients* performance area in one firm that applies three main performance measures (untabulated for reasons of confidentiality).

Panel B – Current performance measures used to assess audit partners' performance

Current performance measure per performance area			
Clients	**People**	**Firm**	**Quality**
• Client satisfaction. • Strategic client portfolio. • Risk profile. • Client selectivity. • Introduction of new audit services. • Industry position.	• Team leadership. • Diversity. • Retention of talent. • Coaching. • 360-feedback. • Partner involvement. • Employee satisfaction survey. • Employee turnover.	• Audit revenues and margin. • Revenue growth. • Productivity. • Realization. • Debtors / WIP. • Client wins and pipeline. • "Base line" expectations. • Independence. • Operational excellence.	• Client satisfaction. • Quality reviews (in- & external). • Quality tone at the top. • Knowledge sharing. • Consultative behavior. • Mandatory / permanent education. • Contribution to AQ initiatives. • Use of new audit techniques and tools. • Acting in the public interest. • Professional skepticism • Partner involvement (e.g., 6%) • Risk management & compliance. • Roles in professional bodies.

Panel C – How audit partners are compensated (including profit share and variable pay)

	Profit pool	Profit sharing scheme	Audit quality bonus / penalty	Capital contribution
Firm A				
2007	An audit partner's profit share is based on a number of units. The unit value is based on an aggregate audit firm level profit divided by the total number of units attributed to partners.	The number of units is based on a combination of (1) maturity and (2) competence class ranging from 25% of base units for a first-year partner (growing-in over a period of 6 years), 100% of units on average, to more than 100% of units based on clearly above average or excellent performance or responsibilities.	Not applicable.	Not applicable.
2012	Idem.	Partners are categorized in three partner profiles with each four competence levels. All else equal (i.e., the same range of units applies).	A bonus (penalty) of maximum of 15% of a partner's allocated profit share in case of distinguishable performance (the second lowest or lowest performance rating) on measures of people, markets, and/or quality (high performance on other measures can alleviate a penalty).	Not applicable.
2017	Idem.	The number of units is based on (1) maturity based on step-wise increase of maturity units over a number of years within one of four competence groups (ranging from 150 to 250 maturity units over five years in group 1; from 150 to 325 over six years in group 2; from 150 to 400 over seven years in group 3; from 150 to 500 over 8 years in group 4) after which all mature partners within the same competence group share equally (irrespective of year-performance) and (2) competence-based classes reflecting a partner's roles and responsibilities (ranging from 80 competence units for group 1; 100 for group 2; 125 for group 3; 155 for group 4).	A maximum of 5% of total profits is available for a discretionary bonus in exceptional cases with a maximum of 25% of a partner's allocated profit share. A penalty of maximum of 25% of a partner's allocated profit share in case of the second lowest or lowest rating levels on the quality performance measure.	Not applicable.
Firm B				
2007	An audit partner's profit share is based on a number of units. The unit value is based on an aggregate audit firm level profit divided by the total number of units attributed to partners.	The number of units is based on (1) equity units to cover for capital invested (growing in four years from five to 35 units); (2) competence units reflecting a partner's roles and responsibilities in 15 categories over three competence groups (ranging from 40 to 100 units for group 1; 70 to 145 for group 2; 100 to 245 for group 3); and (3) performance units based on a multiplier reflecting a partner's overall annual performance (ranging from nil for the lowest of five rating levels to 1.5 for the highest rating) applied to a base	A non-compliant outcome of a quality review results in an overall client performance rating that cannot exceed the second lowest of five rating levels (affecting the performance multiplier).	Partner provide the firm with a capital contribution of EUR 200,000.

		number of performance units within the competence group (45 for group 1, 75 for group 2, and 120 for group 3).		
2012	Idem.	Performance units are based on a multiplier (ranging from nil for the lowest rating to 2.0, 1.67, and 1.46 for the highest rating in competence groups 1, 2, and 3 respectively) for each of the three performance measures applied to 1/3rd of the base number of performance units within the competence group (45 for group 1, 75 for group 2, and 120 for group 3). All else equal.	Idem.	Idem.
2017	Idem.	The number of equity units is set at 20 for all partner equal. Competence units reflect 17 categories over four competence groups (ranging from 25 to 35 for group 1; 40 to 60 for group 2; 70 to 97.5 for group 3; 107.5 to 180 for group 4). Performance units are based on a multiplier (ranging from nil for the lowest annual rating to 1.67 for the highest rating for all competence groups equal) for each of the performance measures applied in a 50:25:25 weighting of the performance measures (clients and quality jointly, people, and firm respectively) to the base number of performance units within the competence group (45 to 55 for group 1; 60 to 80 for group 2; 90 to 117.5 for group 3; 127.5 to 200 for group 4). All else equal.	In addition, in case of the quality component is rated on the (second) highest of five levels, the overall client performance measure is also at least at the second highest rating level (affecting the performance multiplier). All else equal.	Idem.
Firm C				
2007	An audit partner's profit share is based on a number of units. The unit value is based on 90% of an aggregate audit firm level profit divided by the total number of units attributed to partners.	The number of units (starting at 200 for a first year's partner) is based on a mix of (1) maturity (…), (2) competence reflecting a partner's roles, responsibilities, and market position (ranging from 280 points or less for competence group 1 and 2; from 200 to 480 points for group 3; 400 to 600 points for group 4; and 500 or more points for group 5); and (3) a partner's overall performance of the year (rated on a scale from one to five).	Not applicable.	Partner provide the firm with a capital contribution of EUR 350,000.
2012	Idem.	The number of units is based on (1) competence units in four competence groups (ranging from 1,000 to 1,900 units for group 1; 1,600 to 2,600 for group 2; 2,500 to 4,600 for group 3; and 4,400 to 8,400 for group 4 – with a forced distribution of 50/30/12.5/7.5 for groups 1 to 4) which mapping is evaluated when roles or responsibilities change, and (2) maturity units up to 20% of competence points awarded over	A partner's overall rating is capped at level 3 (at level 2) if the rating of performance measures people or quality is at level 2 (at level 1), which may impact multi-year competence mapping.	Idem.

		20 years of maturity (i.e., 1% per maturity year, irrespective of performance or competency mapping). 10% of profit is reserved for a cash bonus for a maximum of 45% of partners based on current-year performance.		
2017	An aggregate audit firm level profit of year t-1 is the basis for setting a reference profit amount in year t on which a partner's fixed part compensation is based for year t.	An audit partner's income comprises of (1) fixed income for the year (t) based on a partner's share in the audit firm's reference profit (t-1) set at the beginning of the year (based on a partner's multi-year mapping in one of three competence groups ranging from incoming, general, to high profile partners – and step-wise development within each of these groups based on performance and potential), and (2) variable income for five to 10 percent of partners for a total maximum amount of two percent of reference profit.	In case of quality issues, a quality penalty can be applied of five to 15% of a partner's income (no upward variable income can apply on other metrics). All else equal.	Idem.
Firm D				
2007	An audit partner's profit share is based on a number of units. The unit value is based on an aggregate audit firm level profit divided by the total number of units attributed to partners.	The number of units is based on competence units in nine competence groups (ranging from 200 to 320 points for induction groups 1 to 3; 380 units for base-partner level four; from 475 to 780 for development classes 5 to 8; and to 900 units for group 9 for exceptional roles and responsibilities). A partner's mapping is set bi-annually based on the partner's performance, roles, and responsibilities relative to competence group profiles on the four performance measures: clients, people, firm, and quality.	Not applicable.	Partner provide the firm with a capital contribution of EUR 500,000.
2012	Idem.	Idem.	Not applicable.	Idem.
2017	Idem.	Idem.	A quality bonus and penalty of a maximum of 15% of a partner's allocated units (in steps of 10 units).	Idem.
Firm E				
2007	An audit partner's profit share is based on a number of units. The unit value is based on an aggregate audit firm level profit divided by the total number of units attributed to partners.	The base number of units is equal for all partners irrespective of role and responsibility. However, incoming partners start at 25% of base units, growing to 100% in 7 years. In addition, 10% of base units plus or minus can be awarded based on current year performance.	Quality should at least be at par to get awarded the base number of units.	Partners provide the firm with a subordinated loan of EUR 300,000.
2012	Idem.	Firm abandoned the 10% range of units based on performance. All else equal.	Idem.	Idem.

2017	Idem.	Idem.	A quality penalty of a maximum of EUR 30,000 (in steps of 30, 60, and 100%).	Idem.
Firm F				
2007	An audit partner's profit share is based on a number of units. The unit value is based on an aggregate audit firm level profit divided by the total number of units attributed to partners.	The base number of units is equal for all partners irrespective of role and responsibility. However, incoming partners start at approximately 60% of base units, growing to 100% in 10 years, and audit firm board functions can be awarded up to approximately 25% additional responsibility units. In addition, 20% of base units can be awarded as bonus based on current year performance.	Not applicable.	Partner provide the firm with a capital contribution of approximately EUR 200,000.
2012	Idem.	Incoming partners grow from 60 to 100% of base points in 7 years. All else equal.	Not applicable.	Capital contribution is approximately EUR 225,000.
2017	Idem.	10% of base units plus (bonus) or minus (penalty) can be awarded based on current year performance (total bonus plusses and minuses are to result in a zero-sum redistribution of profit). All else equal.	A quality penalty of 10% (the maximum of the general bonus / malus range) may be applied.	Capital contribution is approximately EUR 235,000.

Table 3 Descriptive Statistics of Main Research Variables

This table presents descriptive statistics for research variables used in main regression analyses. All variables are defined in Appendix A. *, ** and *** respectively represents statistical significance at 90%, 95% and 99% level.

Panel A: 2007

	All								Big 4		Non-Big 4		Kruskal-Wallis Test
Statistic	N	Mean	Std.Dev.	Min	P25	P50	P75	Max	Mean	SD	Mean	SD	Chi-Square
Total_Pay (€000)	104	432.00	200.41	89.89	297.17	371.47	530.73	1128.19	463.10	203.25	272.82	65.85	19.15***
Total_Profitshare(%)	104	5.77	4.00	0.63	3.36	4.66	6.42	22.02	4.60	1.95	11.76	6.07	31.64***
Exit	104	0.15	0.36	0.00	0.00	0.00	0.00	1.00	0.18	0.39	0.00	0.00	3.66*
Competency_Rating(T)	104	2.91	1.16	0.83	2.05	3.00	3.33	5.00	2.66	0.98	4.19	1.17	17.01***
Competency_Rating(T+1)	92	2.42	1.37	0.31	1.25	2.04	3.33	5.00	2.31	1.29	4.40	1.34	7.86***
Performance_Overall	57	3.43	0.65	1.00	3.00	3.50	4.00	5.00	3.39	0.68	3.54	0.56	0.91
Performance_Bad	57	0.49	0.50	0.00	0.00	0.00	1.00	1.00	0.55	0.50	0.35	0.49	1.82
Clients	32	3.66	0.68	2.50	3.00	3.75	4.06	5.00	3.60	0.74	3.71	0.64	0.56
Clients_Bad	32	0.44	0.50	0.00	0.00	0.00	1.00	1.00	0.55	0.50	0.35	0.49	1.02
People	32	3.55	0.67	1.88	3.00	3.75	3.95	5.00	3.47	0.74	3.63	0.62	1.51
People_Bad	32	0.50	0.51	0.00	0.00	0.50	1.00	1.00	0.67	0.49	0.35	0.49	3.04*
Firm	32	3.51	0.71	1.88	3.00	3.44	4.00	5.00	3.67	0.72	3.37	0.68	0.19
Firm_Bad	32	0.50	0.51	0.00	0.00	0.50	1.00	1.00	0.47	0.52	0.53	0.51	0.12
Quality	20	3.58	0.67	2.92	3.00	3.44	4.00	5.00	3.60	0.74	3.54	0.46	0.00
Quality_Bad	20	0.55	0.51	0.00	0.00	1.00	1.00	1.00	0.53	0.52	0.60	0.55	0.06
Clients2	32	3.62	0.57	2.50	3.23	3.59	4.06	4.50	3.60	0.54	3.64	0.60	0.49
Clients2_Bad	32	0.56	0.50	0.00	0.00	1.00	1.00	1.00	0.73	0.46	0.41	0.51	3.24*

Panel B: 2012

	All								Big 4		Non-Big 4		Kruskal-Wallis Test
Statistic	N	Mean	Std.Dev.	Min	P25	P50	P75	Max	Mean	SD	Mean	SD	Chi-Square
Total_Pay (€000)	129	390.51	174.70	121.36	268.86	353.78	474.48	1022.40	428.75	170.90	231.43	68.73	35.94***
Total_Profitshare(%)	129	4.63	2.60	1.08	3.12	3.81	5.47	15.30	3.82	1.42	8.00	3.57	41.66***
Exit	129	0.17	0.38	0.00	0.00	0.00	0.00	1.00	0.18	0.39	0.12	0.33	0.56
Competency_Rating(T)	129	2.27	1.36	0.17	1.00	2.00	3.33	5.00	2.01	1.29	3.33	1.12	19.62***
Competency_Rating(T+1)	112	2.15	1.37	0.00	1.21	1.67	2.83	5.00	2.01	1.28	4.00	1.22	12.01***
Performance_Overall	126	3.24	0.72	1.95	3.00	3.00	3.50	5.00	3.36	0.71	2.67	0.48	23.90***
Performance_Bad	126	0.59	0.49	0.00	0.00	1.00	1.00	1.00	0.62	0.49	0.45	0.51	1.92
Clients	73	3.25	0.71	2.00	3.00	3.00	4.00	5.00	3.45	0.70	2.78	0.50	18.74***
Clients_Bad	73	0.62	0.49	0.00	0.00	1.00	1.00	1.00	0.59	0.50	0.68	0.48	0.56
People	73	3.08	0.71	1.67	3.00	3.00	3.00	5.00	3.25	0.52	2.66	0.91	15.08***
People_Bad	73	0.29	0.46	0.00	0.00	0.00	1.00	1.00	0.24	0.43	0.41	0.50	2.23
Firm	73	2.92	0.88	1.00	2.22	3.00	4.00	5.00	3.29	0.64	2.07	0.77	27.42***
Firm_Bad	73	0.63	0.49	0.00	0.00	1.00	1.00	1.00	0.65	0.48	0.59	0.50	0.21

Quality	45	3.47	0.94	1.00	3.00	3.00	4.00	5.00	3.74	0.69	3.18	1.10	4.90**
Quality_Bad	45	0.44	0.50	0.00	0.00	0.00	1.00	1.00	0.39	0.50	0.50	0.51	0.53
Clients2	73	3.32	0.65	1.75	3.00	3.00	4.00	5.00	3.46	0.65	2.98	0.55	10.04***
Clients2_Bad	73	0.58	0.50	0.00	0.00	1.00	1.00	1.00	0.61	0.49	0.50	0.51	0.72
Panel C: 2017													
	All								Big 4		Non-Big 4		Kruskal-Wallis Test
Statistic	N	Mean	Std.Dev.	Min	P25	P50	P75	Max	Mean	SD	Mean	SD	Chi-Square
Total_Pay (€000)	135	444.26	164.66	100.74	350.02	405.92	540.45	1179.62	468.01	173.43	344.70	51.20	17.39***
Total_Profitshare(%)	135	4.44	2.71	0.62	2.90	3.81	5.04	15.42	3.67	1.32	7.69	4.28	37.58***
Exit	135	0.12	0.32	0.00	0.00	0.00	0.00	1.00	0.12	0.33	0.12	0.33	0.00
Competency_Rating(T)	135	2.99	1.29	1.00	2.00	3.00	4.17	5.00	2.68	1.18	4.32	0.83	31.83***
Competency_Rating(T+1)	116	2.78	1.33	0.76	1.39	2.69	3.75	5.00	2.67	1.27	4.50	1.12	10.39***
Performance_Overall	129	3.17	0.57	2.00	3.00	3.00	3.26	5.00	3.14	0.57	3.35	0.57	8.18***
Performance_Bad	129	0.60	0.49	0.00	0.00	1.00	1.00	1.00	0.62	0.49	0.45	0.51	2.11
Clients	106	3.27	0.67	2.00	3.00	3.00	3.95	5.00	3.27	0.68	3.27	0.63	0.05
Clients_Bad	106	0.46	0.50	0.00	0.00	0.00	1.00	1.00	0.45	0.50	0.50	0.51	0.14
People	106	3.21	0.63	2.00	3.00	3.00	3.33	5.00	3.21	0.60	3.20	0.74	0.05
People_Bad	106	0.75	0.44	0.00	0.00	1.00	1.00	1.00	0.78	0.42	0.60	0.50	2.72*
Firm	106	3.20	0.64	2.00	3.00	3.00	3.33	5.00	3.15	0.60	3.40	0.77	5.44**
Firm_Bad	106	0.62	0.49	0.00	0.00	1.00	1.00	1.00	0.63	0.49	0.60	0.50	0.05
Quality	74	3.34	1.08	1.00	3.00	3.00	4.50	5.00	3.27	0.82	3.53	1.60	4.50**
Quality_Bad	74	0.59	0.49	0.00	0.00	1.00	1.00	1.00	0.72	0.45	0.25	0.44	13.32***
Clients2	106	3.25	0.63	1.75	3.00	3.00	3.75	4.50	3.22	0.59	3.40	0.79	2.83*
Clients2_Bad	106	0.35	0.48	0.00	0.00	0.00	1.00	1.00	0.37	0.49	0.25	0.44	1.05

Table 4 Descriptive Statistics of Control Variables

This table presents descriptive statistics of control variables used in regression analyses. All variables are defined in Appendix A. *, ** and *** respectively represents statistical significance at 90%, 95% and 99% level.

Panel A: 2007

	All								Big 4		Non-Big 4		Kruskal-Wallis Test
Statistic	N	Mean	Std.Dev.	Min	P25	P50	P75	Max	Mean	SD	Mean	SD	Chi-Square
Age	104	45.78	5.88	35.00	41.00	46.00	50.00	57.81	46.21	5.98	43.59	4.91	2.62
Gender	104	0.98	0.14	0.00	1.00	1.00	1.00	1.00	0.98	0.15	1.00	0.00	0.39
Ln_Engage	104	3.34	1.32	0.00	2.71	3.57	4.30	5.31	3.46	1.36	2.74	0.88	8.97***

Panel B: 2012

	All								Big 4		Non-Big 4		Kruskal-Wallis Test
Statistic	N	Mean	Std.Dev.	Min	P25	P50	P75	Max	Mean	SD	Mean	SD	Chi-Square
Age	129	47.66	5.27	36.00	43.00	48.00	52.00	58.00	48.23	5.06	45.28	5.58	6.23**
Gender	129	0.96	0.19	0.00	1.00	1.00	1.00	1.00	0.95	0.21	1.00	0.00	1.24
Ln_Engage	129	3.47	1.31	0.00	2.83	3.74	4.45	5.41	3.56	1.38	3.11	0.88	7.08***

Panel C: 2017

	All								Big 4		Non-Big 4		Kruskal-Wallis Test
Statistic	N	Mean	Std.Dev.	Min	P25	P50	P75	Max	Mean	SD	Mean	SD	Chi-Square
Age	135	49.81	5.44	37.00	46.00	49.92	54.00	60.00	50.15	5.38	48.42	5.56	1.86
Gender	135	0.91	0.29	0.00	1.00	1.00	1.00	1.00	0.89	0.31	1.00	0.00	3.12*
Ln_Engage	134	3.17	1.24	0.00	2.71	3.42	4.08	5.21	3.15	1.27	3.27	1.11	0.07

Panel D: General Location and Expertise

	All		Big 4		Non-Big 4			All		Big 4		Non-Big 4	
Location	Count	Percent	Count	Percent	Count	Percent	Expertise	Count	Percent	Count	Percent	Count	Percent
East	31	8.4%	27	9.0%	4	5.9%	Corporate Clients	97	26.4%	84	28.0%	13	19.1%
South	35	9.5%	18	6.0%	17	25.0%	Financial Services	36	9.8%	33	11.0%	3	4.4%
West	247	67.1%	200	66.7%	47	69.1%	National Practice	69	18.8%	57	19.0%	12	17.6%
North	10	2.7%	10	3.3%	0	0.0%	International	11	3.0%	6	2.0%	5	7.4%
Unknown	45	12.2%	45	15.0%	0	0.0%	Listed	8	2.2%	8	2.7%	0	0.0%
Total	**368**	**100.0%**	**300**	**100.0%**	**68**	**100.0%**	Private	50	13.6%	37	12.3%	13	19.1%
							Public	17	4.6%	15	5.0%	2	2.9%
							Unknown	80	21.7%	60	20.0%	20	29.4%
							Total	**368**	**100.0%**	**300**	**100.0%**	**68**	**100.0%**

Table 5 Pearson's Correlation Matrix of Regression Variables

This table presents the Pearson's correlation matrix among the main regression variables. All variables are defined in Appendix A. *, ** and *** respectively represents statistical significance at 90%, 95% and 99% level.

	1	2	3	4	5	6	7	8	9	10	11
Total_Profitshare (1)	1										
Exit (2)	-0.12**	1									
Competency_Rating (T) (3)	0.61***	-0.07	1								
Competency_Rating (T+1) (4)	0.66***	-0.12**	0.88***	1							
Performance_Overall (5)	0.15**	-0.21***	-0.03	0.05	1						
Performance_Bad (6)	-0.18***	0.21***	-0.13**	-0.10*	-0.68***	1					
Clients (7)	0.17**	-0.17**	-0.07	0.07	0.75***	-0.48***	1				
Clients_Bad (8)	-0.04	0.14**	0.06	0.09	-0.46***	0.40***	-0.69***	1			
People (9)	0.26***	-0.09	0.02	0.18**	0.68***	-0.37***	0.52***	-0.27***	1		
People_Bad (10)	-0.11	0.08	-0.02	0.06	-0.38***	0.46***	-0.27***	0.13*	-0.57***	1	
Firm (11)	0.15**	-0.08	0.08	0.18**	0.65***	-0.37***	0.46***	-0.34***	0.42***	-0.14**	1
Firm_Bad (12)	-0.22***	0.14**	-0.15**	-0.19**	-0.47***	0.45***	-0.36***	0.20***	-0.30***	0.21***	-0.65***
Quality (13)	0.01	-0.22***	0.08	0.06	0.42***	-0.49***	0.09	-0.06	0.04	0.01	0.11
Quality_Bad (14)	-0.22***	0.18**	-0.16*	-0.20**	-0.38***	0.45***	-0.16*	0.17**	-0.14	0.07	-0.13
Clients2 (5)	0.15**	-0.25***	0.05	0.1	0.75***	-0.63***	0.75***	-0.48***	0.36***	-0.19***	0.34***
Clients2_Bad (16)	-0.05	0.18***	-0.08	-0.02	-0.50***	0.52***	-0.47***	0.69***	-0.18***	0.05	-0.22***
Age (17)	-0.05	0.14***	0.20***	0.07	-0.20***	0.19***	-0.26***	0.04	-0.23***	0.26***	0
Gender (18)	0.12**	0.03	0.10*	0.06	-0.03	0.04	-0.04	0.07	-0.11	0.05	0.02
ln_Engage (19)	-0.14***	-0.02	-0.29***	-0.24***	0.07	0.05	0.13*	0.07	0.13*	-0.03	0.01

	12	13	14	15	16	17	18	19
Firm_Bad (12)	1							
Quality (13)	0.01	1						
Quality_Bad (14)	0.06	-0.76***	1					
Clients2 (5)	-0.26***	0.82***	-0.68***	1				
Clients2_Bad (16)	0.14**	-0.63***	0.66***	-0.66***	1			
Age (17)	0.1	-0.05	0.14*	-0.23***	-0.05	1		
Gender (18)	-0.04	-0.16*	0.14*	-0.1	0.16**	0.09*	1	
ln_Engage (19)	0.01	-0.04	-0.01	0.09	0.06	-0.06	0.07	1

Table 6 Regression Results on Partner Compensation for Individual Performance

This table presents OLS regression results on audit partner compensation for individual performance across financial year 2007, 2012 and 2017. All variables are defined in Appendix A. Robust standard errors are reported in the parenthesis. *, **,*** represent statistical significance at 90%, 95% and 99% level.

	Dependent Variable: Total_Profitshare								
	(1) 2007	(2) 2012	(3) 2017	(4) 2007	(5) 2012	(6) 2017	(7) 2007	(8) 2012	(9) 2017
Competency_Rating	1.432***	1.185***	1.077***	1.257*	1.160***	1.060***	1.715***	1.375***	1.127***
	(0.248)	(0.099)	(0.109)	(0.538)	(0.197)	(0.196)	(0.247)	(0.124)	(0.116)
Performance_Overall	0.455**	0.518***	0.044						
	(0.173)	(0.096)	(0.076)						
Clients				-0.588	0.501*	0.169			
				(0.557)	(0.274)	(0.110)			
People				0.332	0.259	-0.447*	-0.003	0.192	-0.293*
				(0.883)	(0.205)	(0.239)	(0.500)	(0.192)	(0.175)
Firm				0.882	-0.068	0.472***	0.487	0.004	0.393***
				(0.708)	(0.172)	(0.170)	(0.313)	(0.141)	(0.125)
Quality				-1.228	0.241***	0.051			
				(0.815)	(0.072)	(0.082)			
Clients2							-0.776	0.598***	0.109
							(0.684)	(0.124)	(0.105)
Age	0.052	0.037**	0.012	0.029	0.092**	0.001	0.015	0.029	0.001
	(0.035)	(0.015)	(0.019)	(0.203)	(0.040)	(0.038)	(0.041)	(0.018)	(0.021)
Gender	-0.435	-0.164	0.121		-0.869	-0.056		-0.233	-0.053
	(0.326)	(0.180)	(0.126)		(0.516)	(0.274)		(0.250)	(0.175)
ln_Engage	-0.228	0.001	0.012	-0.710	-0.137	0.101	0.022	-0.038	0.070
	(0.207)	(0.056)	(0.052)	(1.385)	(0.161)	(0.106)	(0.219)	(0.100)	(0.074)
Constant	-1.064	-2.469***	-0.441	9.817	-4.311**	-0.616	2.741	-2.988***	-0.367
	(1.321)	(0.799)	(1.037)	(16.834)	(2.067)	(1.771)	(2.068)	(1.070)	(1.166)
Location FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Expertise FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Auditor FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
N	57	126	129	20	45	74	32	73	106
adj. R-sq	0.965	0.950	0.946	0.973	0.977	0.959	0.978	0.972	0.953

Table 7 Supplementary Results on Partner Compensation for Individual Performance

This table presents empirical results on audit partner compensation for individual performance across financial year 2007, 2012 and 2017. All variables are defined in Appendix A. Robust standard errors are reported in the parenthesis. *, **,*** represent statistical significance at 90%, 95% and 99% level.

	Dependent Variable: Total_Profitshare								
	(1) 2007	(2) 2012	(3) 2017	(4) 2007	(5) 2012	(6) 2017	(7) 2007	(8) 2012	(9) 2017
Competency_Rank	0.063	0.112***	0.108***	0.141	0.071**	0.076***	0.137	0.112***	0.107***
	(0.047)	(0.013)	(0.013)	(0.109)	(0.033)	(0.022)	(0.149)	(0.027)	(0.015)
Performance_Rank	0.079**	0.041***	0.012						
	(0.030)	(0.012)	(0.008)						
Clients_Rank				-0.252	-0.035	0.004			
				(0.125)	(0.033)	(0.012)			
People_Rank				0.182	0.031	0.004	0.108	0.021	-0.005
				(0.155)	(0.026)	(0.019)	(0.106)	(0.022)	(0.010)
Firm_Rank				0.272	0.083**	0.019	0.117	0.030	0.026**
				(0.178)	(0.034)	(0.016)	(0.116)	(0.020)	(0.011)
Quality_Rank				-0.417*	0.056**	-0.008			
				(0.194)	(0.023)	(0.014)			
Clients2_Rank							-0.156	0.055***	0.002
							(0.202)	(0.012)	(0.009)
Age	0.258***	0.095***	0.055***	0.143	0.123**	0.099**	0.257**	0.101***	0.054**
	(0.065)	(0.025)	(0.021)	(0.211)	(0.047)	(0.041)	(0.118)	(0.033)	(0.022)
Gender	-0.237	0.149	0.172		-1.222**	-0.136		-0.180	0.049
	(0.534)	(0.190)	(0.149)		(0.537)	(0.284)		(0.392)	(0.187)
ln_Engage	-0.611**	-0.162*	-0.043	-1.875	-0.852***	-0.047	-0.806	-0.346	-0.028
	(0.292)	(0.089)	(0.063)	(1.098)	(0.205)	(0.123)	(0.560)	(0.228)	(0.090)
Constant	-5.781**	-2.605**	-1.928*	13.669	1.299	-2.273	-1.524	-2.251	-1.714
	(2.576)	(1.263)	(1.068)	(13.534)	(2.251)	(1.910)	(4.348)	(1.819)	(1.143)
Location FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Expertise FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Auditor FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
N	57	126	129	20	45	74	32	73	106
adj. R-sq	0.934	0.904	0.914	0.972	0.956	0.925	0.931	0.917	0.917

Table 8 Regression Results on Partner Promotion Following Adverse Individual Performance

This table presents OLS regression results on the assessed competency levels of audit partners after individual performance evaluated to be below firm average in financial year 2007, 2012 and 2017. All variables are defined in Appendix A. Robust standard errors are reported in the parenthesis. *, **,*** represent statistical significance at 90%, 95% and 99% level.

	Dependent Variable: Competency_Rating (T+1)								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	2007	2012	2017	2007	2012	2017	2007	2012	2017
Competency_Rating	0.719***	0.876***	0.989***	1.032***	0.427	1.008***	1.020***	0.943***	1.026***
	(0.092)	(0.062)	(0.036)	(0.239)	(0.294)	(0.093)	(0.222)	(0.167)	(0.045)
Performance_Bad	-0.235**	-0.161*	-0.089						
	(0.087)	(0.084)	(0.076)						
Clients_Bad				-0.003	0.17	-0.174			
				(0.241)	(0.373)	(0.158)			
People_Bad				-0.424	-0.183	0.109	-0.406	-0.114	0.04
				(0.251)	(0.201)	(0.149)	(0.303)	(0.217)	(0.098)
Firm_Bad				0.01	-0.383	-0.213	-0.066	0.065	-0.214**
				(0.211)	(0.292)	(0.138)	(0.227)	(0.220)	(0.089)
Quality_Bad				-0.164	-0.342	0.002			
				(0.166)	(0.404)	(0.141)			
Clients2_Bad							-0.076	-0.300**	-0.017
							(0.188)	(0.133)	(0.115)
Age	0.049***	-0.002	-0.006	0.053	0.089	-0.007	0.059	0.002	-0.01
	(0.017)	(0.013)	(0.006)	(0.054)	(0.061)	(0.016)	(0.041)	(0.024)	(0.006)
Gender	0.272**	-0.1	0.099		-0.846	0.072		-0.168	0.063
	(0.124)	(0.095)	(0.092)		(0.646)	(0.169)		(0.114)	(0.104)
ln_Engage	-0.049	0.052	0.044	0.586*	-0.113	0.112	0.588**	0.067	0.089*
	(0.102)	(0.033)	(0.030)	(0.261)	(0.128)	(0.070)	(0.209)	(0.114)	(0.046)
Constant	-1.550***	-0.053	-0.21	-4.354*	-0.911	0.269	-4.456**	-0.348	-0.046
	(0.528)	(0.518)	(0.347)	(2.044)	(1.667)	(0.756)	(1.418)	(0.824)	(0.439)
Location FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Expertise FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Firm FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
N	45	112	116	20	31	61	20	59	93
adj. R-sq	0.966	0.917	0.941	0.967	0.862	0.905	0.968	0.836	0.935

Table 9 Supplementary Results on Partner Promotion Following Adverse Individual Performance

This table presents OLS regression results on the assessed competency levels of audit partners after individual performance evaluated to be below firm average in financial year 2007, 2012 and 2017. All variables are defined in Appendix A. Robust standard errors are reported in the parenthesis. *, **,*** represent statistical significance at 90%, 95% and 99% level.

	Dependent Variable: Competency_Rating (T+1)								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	2007	2012	2017	2007	2012	2017	2007	2012	2017
Competency_Rank	0.805***	0.843***	0.989***	0.799**	0.146	0.998***	0.839***	0.738***	1.008***
	(0.096)	(0.063)	(0.032)	(0.202)	(0.368)	(0.130)	(0.174)	(0.140)	(0.042)
Performance_RankBad	-1.070	-1.999**	-1.594**						
	(1.016)	(0.963)	(0.765)						
Clients_RankBad				-0.728	1.273	-1.924			
				(0.858)	(3.435)	(1.225)			
People_RankBad				-0.373	-5.677	-0.411	-0.320	-1.204	0.216
				(0.883)	(3.307)	(1.470)	(0.752)	(2.276)	(0.990)
Firm_RankBad				0.012	-6.210*	1.080	-0.408	1.453	0.404
				(0.605)	(3.167)	(1.803)	(0.637)	(3.543)	(1.066)
Quality_RankBad				-0.652	-3.019	-0.790			
				(0.762)	(3.165)	(1.386)			
Clients2_RankBad							-0.734	-4.597**	-1.520*
							(0.952)	(1.735)	(0.893)
Age	0.305*	0.112	0.040	0.167	1.067*	0.037	0.164	0.207	-0.006
	(0.171)	(0.099)	(0.057)	(0.205)	(0.521)	(0.180)	(0.191)	(0.167)	(0.065)
Gender	1.001	-0.329	1.290		-12.435***	2.011		-2.386	1.349
	(1.678)	(1.660)	(0.919)		(3.993)	(1.962)		(1.679)	(1.042)
ln_Engage	0.029	0.132	0.436	0.193	-0.682	0.731	0.264	-0.103	0.541
	(0.644)	(0.265)	(0.289)	(0.597)	(1.459)	(0.783)	(0.491)	(0.774)	(0.499)
Constant	-9.295	-2.376	-4.141	-5.329	-9.715	-5.729	-5.275	1.642	-2.638
	(8.120)	(4.621)	(3.319)	(9.336)	(23.267)	(8.304)	(7.682)	(9.476)	(4.275)
Location FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Expertise FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Firm FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
N	45	112	116	20	31	61	20	59	93
adj. R-sq	0.885	0.737	0.881	0.959	0.569	0.804	0.959	0.592	0.867

Table 10 Regression Results on Partner Retention Following Adverse Individual Performance

This table presents logistic regression results on the likelihood of audit partners leaving their firms following individual performance evaluated to be below firm average in financial year 2007, 2012 and 2017. All variables are defined in Appendix A. Robust standard errors are reported in the parenthesis. *, **,*** represent statistical significance at 90%, 95% and 99% level.

	Dependent Variable: Exit								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	2007	2012	2017	2007	2012	2017	2007	2012	2017
Competency_Rating	0.011	-0.037	-0.026	0.071	-0.048	-0.02	0.00	-0.026	-0.017
	(0.084)	(0.040)	(0.032)	(0.191)	(0.108)	(0.050)	(0.047)	(0.061)	(0.039)
Performance_Bad	0.016	0.156**	0.106**						
	(0.117)	(0.060)	(0.050)						
Clients_Bad				0.013	-0.068	-0.105			
				(0.195)	(0.140)	(0.088)			
People_Bad				-0.05	0.186	-0.055	0.045	0.206*	-0.056
				(0.185)	(0.125)	(0.092)	(0.083)	(0.110)	(0.079)
Firm_Bad				-0.034	0.197	0.051	0.054	0.074	-0.008
				(0.135)	(0.127)	(0.062)	(0.078)	(0.076)	(0.057)
Quality_Bad				0.119	0.207*	0.093			
				(0.133)	(0.121)	(0.098)			
Clients2_Bad							0.052	0.122	0.04
							(0.071)	(0.073)	(0.110)
Age	-0.013	0.012	0.012	0.073	0.032	0.016	0.016	0.011	0.018*
	(0.020)	(0.011)	(0.009)	(0.072)	(0.023)	(0.011)	(0.022)	(0.012)	(0.011)
Gender	0.008	0.074	-0.112		-0.075	-0.008		0.152	-0.068
	(0.194)	(0.086)	(0.106)		(0.276)	(0.080)		(0.127)	(0.121)
ln_Engage	0.019	-0.041	-0.041	0.437	-0.104	-0.038	0.042	-0.014	-0.007
	(0.042)	(0.031)	(0.033)	(0.408)	(0.074)	(0.040)	(0.056)	(0.039)	(0.036)
Constant	0.464	-0.408	-0.217	-5.358	-0.839	-0.495	-0.921	-0.637	-0.543
	(0.758)	(0.480)	(0.474)	(4.565)	(0.675)	(0.565)	(1.108)	(0.462)	(0.556)
Location FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Expertise FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Auditor FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
N	57	126	129	20	45	74	32	73	106
pseudo R-sq	-0.095	0.111	0.059	-0.589	0.183	0.133	-0.476	0.093	0.003

Table 11 Supplementary Results on Partner Retention Following Adverse Individual Performance

This table presents logistic regression results on the likelihood of audit partners leaving their firms following individual performance evaluated to be below firm average in financial year 2007, 2012 and 2017. All variables are defined in Appendix A. Robust standard errors are reported in the parenthesis. *, **,*** represent statistical significance at 90%, 95% and 99% level.

	Dependent Variable: Exit								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	2007	2012	2017	2007	2012	2017	2007	2012	2017
Competency_Rank	-0.009	-0.008	-0.004	0.005	-0.014	-0.005	0.009	-0.017**	-0.001
	(0.016)	(0.006)	(0.004)	(0.035)	(0.019)	(0.005)	(0.016)	(0.008)	(0.004)
Performance_RankBad	0.026	0.147**	0.083*						
	(0.101)	(0.061)	(0.045)						
Clients_RankBad				0.091	-0.203	-0.002			
				(0.197)	(0.129)	(0.086)			
People_RankBad				-0.176	0.309	-0.042	0.003	0.302**	-0.023
				(0.254)	(0.201)	(0.107)	(0.053)	(0.144)	(0.085)
Firm_RankBad				-0.049	0.279	-0.134	0.064	0.010	-0.111
				(0.154)	(0.168)	(0.107)	(0.086)	(0.072)	(0.086)
Quality_RankBad				0.149	0.008	-0.068			
				(0.180)	(0.071)	(0.096)			
Clients2_RankBad							0.058	0.132*	0.016
							(0.079)	(0.079)	(0.071)
Age	-0.004	0.014	0.012	0.081	0.044*	0.014	0.007	0.021*	0.016
	(0.018)	(0.010)	(0.008)	(0.074)	(0.024)	(0.011)	(0.013)	(0.011)	(0.010)
Gender	0.045	0.093	-0.110		-0.075	0.056		0.259*	-0.084
	(0.168)	(0.090)	(0.112)		(0.237)	(0.060)		(0.136)	(0.112)
ln_Engage	0.003	-0.041	-0.047	0.408	0.017	-0.044	0.056	-0.040	0.000
	(0.028)	(0.029)	(0.033)	(0.349)	(0.085)	(0.038)	(0.069)	(0.036)	(0.033)
Constant	0.230	-0.506	-0.178	-5.438	-1.965**	-0.227	-0.647	-1.285**	-0.414
	(0.705)	(0.451)	(0.470)	(4.585)	(0.890)	(0.559)	(0.828)	(0.486)	(0.532)
Location FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Expertise FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Firm FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
N	57	126	129	20	45	74	32	73	106
pseudo R-sq	-0.074	0.128	0.048	-0.491	0.157	0.144	-0.487	0.178	0.016

Appendix A Variable Definitions

Compensation Variables	
$Total_Pay_{i,t}$	The amount of partner *i*'s total pay in year *t*.
$Total_Profitshare_{i,t}$	The percentage of partner *i*'s *Total_Pay* among total partner compensation paid in his/her firm sample in year *t* times 100.
$Fixed_Pay_{i,t}$	The amount of partner *i*'s pay for his/her competence and role responsibility level established at the beginning of year *t*.
$Variable_Pay_{i,t}$	The amount of partner *i*'s pay (or pay deduction) for his/her performance during year *t*.
$Variable_Pay\%_{i,t}$	The percentage of partner *i*'s *Variable_Pay* among *Total_Pay* in year *t*.
Retention Variable	
Exit	An indicator variable with value of 1 if partner *i* exits the position within 5 years after year *t*, and 0 otherwise.
Competency Variables	
$Competency_Rating_{i,t}$	A score measure (0-5, the higher the more senior) that reflects the rank of partner *i* 's competence group in his/her firm at the beginning of year t. The ranks of competence groups reflect partners' relative competency level and role responsibility within each firm-year.
$Competency_Rating_{i,t+1}$	Partner *i*'s *Competency_Rating* at the beginning of year *t+1* (the year following the performance evaluation year *t*).
$Competency_Rank_{i,t}$	The rank of partner *i* 's *Competency_Rating* among sampled partners in his/her firm in year *t*.
$Competency_Rank_{i,t+1}$	The rank of partner *i* 's *Competency_Rating* among sampled partners in his/her firm in year *t+1*.
Performance Variables	
$Performance_Overall_{i,t}$	A score measure (0-5, the higher the better) that assesses of partner *i* 's overall performance during year *t*.
$Performance_Bad_{i,t}$	An indicator variable with value of 1 if partner *i* scores below firm average in *Performance_Overall* during year *t*, and 0 otherwise.
$Clients_{i,t}$	A score measure (0-5, the higher the better) of partner *i* 's performance in clientele management and new clients acquisition during year *t*.
$Clients_Bad_{i,t}$	An indicator variable with value of 1 if partner *i* scores below firm average in *Clients* during year *t*, and 0 otherwise.
$People_{i,t}$	A score measure (0-5, the higher the better) of partner *i* 's performance in human resource management during year *t*.
$People_Bad_{i,t}$	An indicator variable with value of 1 if partner *i* scores below firm average in *People* during year *t*, and 0 otherwise.
$Firm_{i,t}$	A score measure (0-5, the higher the better) of partner *i* 's performance in firm operation and policy compliance during year *t*.
$Firm_Bad_{i,t}$	An indicator variable with value of 1 if partner *i* scores below firm average in *Firm* during year *t*, and 0 otherwise.
$Quality_{i,t}$	A score measure (0-5, the higher the better) of partner *i* 's performance in audit quality during year *t*.
$Quality_Bad_{i,t}$	An indicator variable with value of 1 if partner *i* scores below firm average in *Quality* during year *t*, and 0 otherwise.
$Clients2_{i,t}$	A combined measure (0-5, the higher the better) of partner *i* 's performance in clientele management and audit quality during year *t*. It is either an average score between *Clients* of *Quality* if both dimensions are evaluated, or equivalent to *Clients* if *Quality* is inherently embedded within *Clients* as per firm policies.
$Clients2_Bad_{i,t}$	An indicator variable with value of 1 if partner *i* scores below firm average in *Clients2* during year *t*, and 0 otherwise.
$Performance_Rank_{i,t}$	The rank of partner *i* 's *Performance_Overall* score among sampled partners in his/her firm during year *t*.
$Performance_RankBad_{i,t}$	An indicator variable with value of 1 if partner *i* ranks among the firm lower 50% percentile for *Performance_Overall* during year *t*, and 0 otherwise.
$Clients_Rank_{i,t}$	The rank of partner *i* 's *Clients* score among sampled partners in his/her firm during year *t*.
$Clients_RankBad_{i,t}$	An indicator variable with value of 1 if partner *i* ranks among the firm lower 50% percentile for *Clients* during year *t*, and 0 otherwise.
$People_Rank_{i,t}$	The rank of partner *i* 's *People* score among sampled partners in his/her firm during year *t*.

$People_RankBad_{i,t}$	An indicator variable with value of 1 if partner *i* ranks among the firm lower 50% percentile for *People* during year *t*, and 0 otherwise.
$Firm_Rank_{i,t}$	The rank of partner *i* 's *Firm* score among sampled partners in his/her firm during year *t*.
$Firm_RankBad_{i,t}$	An indicator variable with value of 1 if partner *i* ranks among the firm lower 50% percentile for *Firm* during year *t*, and 0 otherwise.
$Quality_Rank_{i,t}$	The rank of partner *i* 's *Quality* score among sampled partners in his/her firm during year *t*.
$Quality_RankBad_{i,t}$	An indicator variable with value of 1 if partner *i* ranks among the firm lower 50% percentile for *Quality* during year *t*, and 0 otherwise.
$Clients2_Rank_{i,t}$	The rank of partner *i* 's *Clients2* score among sampled partners in his/her firm during year *t*.
$Clients2_RankBad_{i,t}$	An indicator variable with value of 1 if partner *i* ranks among the firm lower 50% percentile for *Clients2* during year *t*, and 0 otherwise.
Control Variables	
$Age_{i,t}$	The age of partner *i* in year *t*.
$Gender_{i,t}$	An indicator variable with value of 1 if partner *i* is male and 0 if female.
$Ln_Engage_{i,t}$	The natural logarithm of the number of audit engagements partner *i* involved in during year *t*.
Location FE	Indicator variables for the general location of partner home offices, respectively East (Gelderland, Overijssel), South (Limburg, North Braband), West (North Holland, South Holland, Utrecht and Zeeland), North (Groningen) and Unknown.
Expertise FE	Indicator variables for the general expertise of partners, including Corporate Clients, Financial Services, National Practice, International, Listed, Private, Public and Unknown. Expertise categorization methods vary across firms.
Auditor FE	Indicator variables for the auditor partners belong to. There are six auditors in total, including the Big 4 and two mid-tier auditors.