The Accounting Review Registered Report Proposal:

Does Private Equity Investment in Accounting Firms Affect Perceived and Actual Audit Quality?

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June 2024

Abstract

This paper examines the impact of private equity (PE) investment in accounting firms on the perceived and actual quality of their audits. We exploit recent high-profile announcements of major PE investments in the accounting industry. This provides a difference-in-differences design, with the treatment (control) firms defined as clients of auditors receiving (not receiving) PE investment. We first examine investor perceptions of audit quality, using equity market reactions of client firms to PE investment announcements. We then examine actual audit quality outcomes, using commonly examined measures of audit quality, including accruals and meeting/beating expectations. Additional analyses examine client firm responses to these PE investments, including the issuance of 8-Ks, changes in 10-K risk factor disclosures, and auditor switches. Combined, these analyses provide insights into whether PE investment in audit firms enhances or diminishes perceived and actual audit quality.

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Use of Non-Public PCAOB Data

Does the proposal require the use of PCAOB's non-public data?

The proposed primary analyses focus on the outcome variables of equity market reactions and commonly used audit quality measures. These constructs and necessary control variables are available from well-established public databases, including Compustat and CRSP.

Further, we note that most of the treatment sample accounting firms are not members of global network firms: as such, we anticipate that they will be less likely to have extensive PCAOB data, particularly relating to inspections.

However, we would like to explore the availability of data for both our treatment and control accounting firms, including the following:

- audit engagement data: hours, available information from both PCAOB and internal inspections (including audit adjustment and deficiency data)
- auditor data: number of partners, average age of partners, number of client firms, and annual revenue (broken down by audit, tax, and consulting sources)

Depending on PCAOB data availability, we can exploit this data for both descriptive analyses (e.g., comparing accounting firms that receive versus do not receive private equity (PE) investment across key characteristics), and potentially for empirical analyses (such as modeling the drivers of receiving PE investment). For example, we could examine engagement hours before and after PE investment to assess changes in audit effort.

1. Introduction

This paper examines the audit-quality consequences of private equity investment in accounting firms. In recent years there have been a number of notable private equity (PE) investments in accounting firms, with evidence suggesting an ongoing trend.[1] For example, Grant Thornton and Baker Tilly, both audit firms with clients within the S&P 500, announced strategic deals with PE firms in March and February of 2024, respectively.

The accounting firms accepting PE investment are (listed in reverse chronological order):

Accounting Firm	Accounting Today 2023 Rank	Month of PE Investment Announcement	PE Firm
Grant Thornton	7	Mar 2024	New Mountain Capital
Baker Tilly	10	Feb 2024	Hellman & Friedman, and Valeas Capital Partners
Smith and Howard	>100	Nov 2022	Broad Sky Partners
Cherry Bekaert	29	Jun 2022	Parthenon Capital
Citrin Cooperman	21	Apr 2022[2]	New Mountain Capital
Schellman and Co	49	Sep 2021	Lightyear Capital
EisnerAmper	17	Aug 2021	Towerbrook Capital Partners

The use of PE funding marks a transformative shift in both the ownership and legal structures of accounting firms. Historically, accounting firms have operated as partnerships due to regulatory requirements for CPAs to have majority ownership over audit and attestation services. PE investment introduces outside investors to these firms. Of further note, such investment requires a legal restructuring of the firm, splitting it into in two: the audit and attestation practice remains owned by CPAs, while the rest of the business moves to a new company, part of which is sold to the PE investors. Importantly, the CPA firm partners maintain an ownership interest in the new non-audit entity. While this restructuring meets the regulatory requirement, the impact of the arrangement on the audit practice is unclear.

Our study explores the implications of this shift in ownership structure in two ways: (i) equity-market perceptions of audit clients of the targeted accounting firms (an *ex ante* perspective), and (ii) actual effects of the PE investment on audit quality outcomes (an *ex post* perspective).

The motivations driving PE investment in the accounting industry include: the potential for increased growth through further service offerings and consolidation; the potential for cost-cutting and streamlining through efficiencies, and transformative changes such as artificial intelligence (AI); and the draw of a generally steady and profitable business model. Further, PE has experienced prior successes in professional service-based industries (e.g., wealth management,

[1] For example, https://www.journalofaccountancy.com/issues/2023/feb/private-equity-eyes-accounting-firms-large-and-small.html and https://www.ft.com/content/cb6e7746-06f1-496e-81f7-1053773960f3

[2] According to the New Mountain Capital press release, this investment was announced approximately six months after completion of the deal with Citrin Cooperman. To our knowledge, all other deals were announced prior to or concurrent with the completion of the investment.

insurance distribution); thus, fund managers may view accounting as a similar investment opportunity.

Accounting firms may accept PE investment for a number of reasons as well. Accounting firms are often capital constrained as most profits are distributed to current and former partners. This restricts their ability to make investments in technology and acquisitions. Thus, new capital can facilitate the accounting firm's efforts to modernize and streamline its operations, expand into new service areas, and improve compensation for talent acquisition and retention. Early anecdotal evidence indicates PE has indeed supported the growth of accounting firms. For example, Schellman and Co.'s ranking improved from 65th in 2021 (the year of PE investment) to 49th largest US accounting firm in 2023. Similarly, EisnerAmper completed ten mergers from mid-2022 to early 2023 (the year after the PE investment). These examples are suggestive of broader consolidation trends occurring within this industry.

There are several ways in which PE investment can significantly affect the audit business. While the creation of separate legal entities between audit and non-audit practices is intended to address independence concerns, frictions exist that may impede its successfully doing so. For example, shared personnel and co-located offices can affect information flows and pressure on auditors to maintain good client relationships. Further complicating the boundaries is partner compensation, particularly for accounting firm top management, which can be influenced by performance of both audit and non-audit practices.

On the one hand, accounting firms accept PE investment because they believe the capital infusion will enhance the firm's offerings, improve capability and operations, and support growth, all of which may improve audit quality. Further, any PE exit strategy likely reflects a sale to a future investor (including another PE firm), providing incentives to ensure maintained audit quality and reputation. On the other hand, shorter-term investment objectives of PE investors can create incentives conflicting with auditors' gatekeeper role, which may affect both the perceived and actual quality of work produced by the audit firm. Of note, the Securities and Exchange Commission (SEC) has expressed reservations about maintaining the trust of investors given that auditor independence concerns, in fact or in appearance, may threaten the auditor's objectivity in providing audit opinions (Munter 2022b).

Our first analysis explores investor *perception* of PE investment in accounting firms. Using an event study method, we identify audit clients of accounting firms with PE investment and assess their stock market returns to announcement of the PE deal. This provides an *ex ante* assessment of whether PE investment in an accounting firm changes equity-market investor expectations of the risks associated with being audited by that firm. Our second analysis explores whether *actual* audit quality consequences exist for clients of auditors with PE investment. This provides an *ex post* assessment of whether and how PE investment in an accounting firm changes the outcomes for audit clients of these firms.

To our knowledge, this is the first study to explore the effects of PE investments on accounting firms. Given current challenges to the accounting profession—such as broad, ongoing staffing challenges, and the rapid emergence of AI—it seems likely that consolidation will continue within this industry. It also seems likely that PE will provide an ongoing source of capital to facilitate this consolidation. Thus, we believe the results of our analysis will have policy implications as

US regulators continue to closely monitor this trend to ensure investor protection and high-quality audits. These results will also be of considerable interest to audit firms, their audit clients, and investors to better understand the implications of current and future PE investments on the audit market structure.

2. Background

To meet regulatory requirements for CPAs to have majority ownership over audit practices, accounting firms must go through restructuring to separate the audit and attestation services from tax and consulting. In particular, the audit and attestation practice remains owned by CPAs, while the rest of the business moves to a new company, part of which is sold to the PE investors. The CPA firm partners maintain an ownership interest in the new non-audit entity, including a voting interest (Maurer, 2024). This approach is referred to as an *alternative practice structure*.

The Office of the Chief Accountant (OCA) at the SEC, as well as members of the PCAOB, have expressed some apprehension about accounting firms' exploration of alternative practice structures and the uptick in new business arrangements between firms and entities not engaged in public accounting (Munter 2022a; Munter 2022b; Botic 2024; Munter 2024). In the view of the OCA, "complex transactions with investors that are not traditional accounting firms […] elevate the risk to an auditor's independence with respect to its audit clients" and would require "vigilant ongoing monitoring of […] audit quality" (Munter 2022b).

In concept, the creation of separate legal entities between audit and non-audit practices is intended to address independence concerns, and thus maintain high quality audits. However, closer inspection of post-PE company structures suggests that these organizational changes may have limitations in successfully doing so. For example, a Cherry Bekaert press release described their restructuring as:

> *Cherry Bekaert" is the brand name under which Cherry Bekaert LLP and Cherry Bekaert Advisory LLC, independently owned entities, provide professional services in an alternative practice structure in accordance with applicable professional standards. Cherry Bekaert LLP is a licensed CPA firm that provides attest services, and Cherry Bekaert Advisory LLC and its subsidiary entities provide business advisory and non-attest services* […].

From an external perspective, the two entities continue to share a website and overarching brand. Internally, Cherry Bekaert's organizational chart reveals personnel holding concurrent leadership positions in both entities.[3] Similarly, Grant Thornton's audit, tax, and advisory units are still co-located. The alternative practice structures implemented at the other accounting firms mirror these approaches, providing opportunity for potential information sharing and influence across entities.[4] Thus, operationalization of the division between the audit and non-audit arm in these alternative practice structures, as currently implemented, may be ineffective.

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[3] See https://www.cbh.com/professional/

[4] An analogous setting is investment banking, where the *ethical wall* that exists to prevent the exchange of non-public information between the advisory and investment divisions has been perceived as inadequate. For example, https://www.businessinsider.com/people-think-goldman-sachs-broke-the-chinese-wall-2016-5

Beyond organizational structure issues, PE involvement can introduce additional challenges. PE investments often incentivize target company management through stock options and other mechanisms. Kaplan and Stromberg (2003) documents that most PE financing agreements include contingencies tied to financial metrics, future stock option offerings, or continued employment.[5] Accounting partners with an ownership stake in both entities may be particularly susceptible to the pressure of client retention, given the influence of individual accounts and client relationships on their careers (Moore et al. 2006). This susceptibility may be heightened when clients purchase a broad range of services across the accounting firm's portfolio. In such scenarios, a real or perceived conflict can arise between the auditor's obligation to objectivity and the pursuit of revenue generation.

News reports further underscore conflict-of-interest concerns. Accounting firms may gain their PE investor as a new client as well as its other portfolio companies (Maurer, 2024). Further, Grant Thornton's PE-majority-owned advisory practice reportedly maintains a contractual relationship with the firm's audit side through a management services agreement (Maurer, 2024). Adding to the complexity, Grant Thornton and Citrin Cooperman share a PE investor, potentially creating a three-way link for independence concerns. Such arrangements, combined with the ever-changing nature of PE investment portfolios, raise concerns about the effectiveness of legal separation in maintaining independence in fact and in appearance.

If the accounting firm restructuring is more legalistic than in fact, and the ownership of accounting partners in both legal entities creates incentive structures linking the two, then we expect PE investment in the non-audit practice to be able to influence the audit practice. The SEC appears to share this concern. An August 2022 statement from the OCA cautioned that accounting firms considering restructuring must carefully consider the definition of an "accounting firm" (under the SEC's independence rule, Regulation S-X or 17 C. F. R. §210[6]), and whether a reasonable investor would believe that the restructured arrangement results in the non-audit and audit practices being "associated entities" (Munter 2022b).

3. Research Design

Hypotheses

Prior research on PE outcomes yields mixed results on whether PE investment positively or negatively impacts the performance of the target firm. On the one hand, some evidence exists of positive effects of PE investment on target firms. For example, investment by PE firms can improve operational performance (Kaplan and Strömberg 2009) and productivity (Davis et al. 2021), and increase investments in technology and innovation (Lerner et al. 2011). On the other hand, PE investors can lead to net job losses (Baker et al. 2019), a decline in average earnings per employee (Davis et al. 2021), and negative impacts on worker benefits and job security (Gornall et al. 2021).

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[5] PE investors can also restrict target company management's mobility through non-compete clauses. For a detailed description of contract contingencies in private equity contracts, see Kaplan and Stromberg (2003).

[6] https://www.ecfr.gov/current/title-17/section-210.2-01

A relevant setting is the healthcare sector, which (like the accounting industry) adheres to strict measures of quality and professional standards. PE firms have been particularly active in this sector, where declines in staffing and compliance with care standards have led to increased mortality rates in nursing homes (Gupta et al. 2023) and increased complications in hospitals (Kannan et al. 2023). Of note, the healthcare sector has a number of features relevant to the public accounting setting, including its general ownership structure (i.e., regulatory requirements limit the ownership of medical practices to licensed doctors) and the commitment to safeguarding the public. Thus, evidence that PE investment in healthcare settings leads to lower quality outcomes is suggestive of potentially negative effects within the accounting/auditing setting.

The overarching objective of PE firms is to improve the performance of target firms to maximize return on investment, with a general intent to divest within a horizon of 3-6 years. Notably, all PE investors in accounting firms have stated a growth strategy, consistent with the aim of maximizing the exit price of their investment. Thus, the shorter-term horizon places pressure on the PE firm to quickly implement changes at the target firm to realize value within the relatively brief investment period. These changes are typically achieved through operational and financing strategies. For example, if PE capital is used to invest in technology, acquisitions, and talent, this can enhance efficiencies and a better-skilled workforce, leading to similar or improved quality of audit work produced by the accounting firm. Alternatively, if PE investors implement workforce reductions and other cost-cutting measures without offsetting improvements in operations, this can degrade the quality of audit work produced by the accounting firm. The emphasis on short-term returns could similarly create pressure to reduce audit hours or accept more clients, which could also compromise audit quality. The introduction of PE ownership also has unique considerations for auditor independence, as expressed in the concerns raised by regulators including the SEC. Overall, this suggests that the impact of PE investment on audit quality is uncertain.

We explore the audit-related consequences of PE investment from two perspectives: client firm investor perception of audit quality (i.e., the *ex ante* perception of impact on audit quality) and actual audit quality (i.e., using *ex post* measures of audit quality).

Our first set of analyses explores perceived audit quality using equity investors in audit clients of accounting firms targeted by PE. If investors expect PE ownership to have a net detrimental effect on audit quality (e.g., due to cost-cutting or increased conflicts of interest), then we predict a negative average equity market response to announcements of PE investment in the accounting firm serving as their auditor. Alternatively, if investors expect PE ownership to achieve similar audit quality at lower cost (e.g., through synergies and efficiencies) and/or a net beneficial effect on audit quality (e.g., due to investment in personnel), then we predict a positive average equity market response to announcements of PE investment in the accounting firm serving as their auditor. Thus, we state our first hypothesis in the following two-sided alternative form:

H1: PE investment impacts *perceived* audit quality.

Our second set of analyses explores actual outcomes for audit clients of accounting firms targeted by PE. On the one hand, PE investment may positively affect accounting firm operations, resulting in improved audit quality of their clients (e.g., due to best practice sharing through consolidated firms). On the other hand, accounting firms partnering with PE firms may experience impaired independence (in line with the OCA concerns) or cost reduction strategies that impede the audit

quality of their clients. Thus, we also state our second hypothesis in the following two-sided alternative form:

H2: PE investment impacts *actual* audit quality.

Methodological Framework / Identification Strategy

We employ a difference-in-differences design. In particular, we use archival data to test whether the difference in perceived and actual audit quality between the treatment and control groups changes when the auditors of treatment client firms accept PE investment. We define our treatment group to be client firms whose auditing firm has accepted PE investment. We define our control group to be client firms whose auditing firm does not have PE investment.

We highlight that the announcements of the PE investments are exogenous to the client firms and are staggered over the sample period. Further, we will have a strong ability to identify both treatment and control client firms, including a range of control firms to facilitate matching techniques. Overall, we believe this provides strong identification to assess the impact of PE investment in accounting firms on perceived and actual audit quality.

Equity Returns Analysis

Our first analyses explore the investor perception of PE investment in accounting firms. Specifically, we evaluate how the stock market reacts to announcements of PE investments by examining the equity market response of audit clients of the targeted accounting firms, with our unit of observation being client firm daily returns. We will use the following difference-in-differences OLS equation:

$$CAR_{it} = \beta_0 + \beta_1 Treat_i + \beta_2 Treat_i \times AnnouncePE_t + \beta_3 AnnouncePE_t + Controls_{it} + \varepsilon_{it} \quad (1)$$

CAR is the short-window cumulative abnormal return; this will be assessed using multiple windows (e.g., 1-day, 3-day). *Treat* is an indicator variable equal to 1 for client firms whose auditors receive PE investments, and 0 otherwise (i.e., client firms whose auditors do not receive PE investments). *AnnouncePE* is an indicator variable equal to 1 for the announcement dates of the PE investment, and 0 otherwise (i.e., non-event dates). Thus, β_2 captures the incremental equity market reaction for the treatment client firms to the announcement of the PE investment.

There are currently seven accounting firms with PE deals (see table in Introduction): these announcements start in August 2021 and are staggered through March 2024. Thus, our analysis will examine audit clients of the affected accounting firms, with our unit of observation being the client-firm daily returns.

Following standard event study methodology, we will compare abnormal returns of treatment and control clients on the dates the PE deals are announced relative to non-announcement days. Controls will include common measures used in market studies to control for factors known to affect returns: market capitalization, share turnover, and return variability (see Hail et al. 2021).

Audit Quality Analysis

Our second set of analyses explores the actual consequences of PE ownership on audits. Specifically, we evaluate whether audit quality exhibits changes following PE investment for audit clients of the targeted accounting firms. We will analyze all available years post-PE investment, which currently spans three years for the earliest firms that accepted PE investment in 2021. We will limit the length of the pre-period to the available post-period, leading to up to three years of pre- and post-PE deal data. Importantly, the PE investments are not aligned in time: they are announced in various months over multiple years. Thus, we will adopt approaches to address potential concerns with staggered designs (e.g., Baker et al. 2022). Our analysis will examine audit clients of the affected accounting firms, with our unit of observation being client firm-years. We will use the following difference-in-differences OLS equation:

$$AQ_{it} = \beta_0 + \beta_1 Treat_i + \beta_2 Treat_i \times PostPE_t + \beta_3 PostPE_t + Controls_{it} + \varepsilon_{it} \quad (2)$$

We will employ output measures of audit quality (i.e., AQ) used widely in the literature: discretionary accruals (signed and unsigned), total accruals, and meeting or beating expectations (zero earnings and prior year's earnings). We note that it is unlikely we can use certain output measures, such as going concern errors and restatements, as there is a generally insufficient post-PE investment period to test for such effects. We will also employ input measures of audit quality: audit fees, change in audit fees, audit hours (if available from the PCAOB), and first-year engagements. These audit quality measures have been shown in prior research to be associated with both regulatory (i.e., PCAOB Part I inspection findings) and practitioner views of audit quality (Aobdia 2019).

Control variables will include common measures used in the audit literature to control for factors known to affect audit quality: client size, profitability, growth, business complexity (foreign income, business segments), and risk (leverage, cash flow from operations) (see DeFond and Zhang 2014; and Aobdia 2019).

Endogeneity

The decision for an accounting firm to accept PE investment is unlikely to be random. To address endogeneity, we propose the following three approaches.

First, given the large potential control sample (i.e., audit clients of accounting firms without PE investments), we will be able to employ balancing techniques to improve the covariate balance between the treatment and control groups. Entropy balancing allows us to eliminate covariate imbalance by reweighting the sample without discarding any treatment observations, which is beneficial given our potentially small sample. This approach should control for other (known) factors that could drive differences in observed stock returns and audit quality.

Second, a likely motivation for PE investment reflects the substantial gap between non-Big 4 and Big 4 firms. Thus, in robustness analyses we will limit the control sample to non-Big 4 firms, which should increase the likelihood of the control sample being potential targets of PE investors.

Third, the accounting firm RSM announced the sale of its wealth management practice to PE firm Parthenon in January of 2022. While this is an example of PE investment in the accounting industry, it is distinct in that the entire wealth management practice was divested (accounting

partners did not retain any ownership), and the practice was completely rebranded under the new name *Choreo*. Thus, we will explore using RSM audit clients as a benchmark group where PE is *not* expected to affect audit quality.[7]

Additional Analyses

We will also examine other *ex post* measures to assess client firm responses to the PE investment announcements of their audit firms. We propose several additional analyses:

(i) we will examine the issuance (and non-issuance) of 8-K filings by client firms following the announcement of PE investment, to assess whether client firms view such changes as material events warranting issuance of 8-K filings;

(ii) we will examine whether client firms change their risk factor disclosures in the 10-K filings following the announcement, to assess whether client firms view PE investments in their auditors as material risks;

(iii) we will examine whether client firm measures of longer-term risk (such beta, risk premiums, and interest rates) are affected by their audit firms receiving PE investment, to further understand equity and debt market perceptions of risk; and

(iv) we will examine whether client firms of auditors receiving PE investment exhibit higher probabilities of switching their auditor.

Limitations

There are three primary limitations to this setting:

(1) *Sample size.* Our sample of affected accounting firms is relatively small and comprised of non-Big 4 firms: this can limit the generalizability of the results.

(2) *The post-PE investment period is generally limited.* Related, in the actual audit quality analysis, the post-period for the more recent PE investments is limited to the first year of PE investment (2024). This shorter period could reduce any impact of the ownership change on audit quality. However, mitigating this effect, we note that private equity firms operate on short time horizons and, as a result, begin implementing their strategies almost immediately.

(3) *COVID-19 occurs in the pre-PE investment period.* The earliest PE investments occur in 2021, which can create confounds in structuring the pre-period observations due to the COVID-19 pandemic; robustness analyses adjusting the pre-announcement period can help to address such concerns.

[7] RSM has approximately 120 audit clients with the necessary data during our sample period.

The proposed flow of tables is as follows:

- Table 1: Sample Identification
- Table 2: Descriptive Statistics and Correlations
- Table 3: Univariate Partitions Comparing Treatment to Control Firms
- Table 4: Main Results – Equity Returns Analysis
- Table 5: Main Results – Audit Quality Analysis
- Table 6: Cross-sectional Tests
  - Panel A. Client Firm Characteristics
  - Panel B. Audit Firm Characteristics
  - Panel C. PE Firm Characteristics
- Table 7: Alternative Outcome Measures
  - Panel A. 8-K filings
  - Panel B. Risk Factor Disclosures
  - Panel C. Probability of Auditor Switches
- Table 8: Sensitivity Analyses

Cross-Sectional Tests

Our analyses will exploit three dimensions of cross-sectional variation.

First, we will exploit characteristics of the *client firms* whose auditor has accepted a PE investment. This will allow us to assess whether the expected and actual effects of PE investment vary with client firm traits including: risk, reporting transparency, governance (as a mitigating factor for any reduced audit quality), and ownership.

Second, we will exploit characteristics of the *accounting firms accepting PE investment*. This will include the market share (including for particular industries), audit partner characteristics, and engagement lengths.

Third, we will exploit characteristics of the *PE investment firms*. This will include general partner characteristics (such as prior experience), as well as fund characteristics like industry specialization (suggesting expertise that could pass onto client firms of the auditor) and age.

To the extent we are able to obtain proprietary PCAOB data on either the audit firms (e.g., partner demographics, revenue streams) and/or their clients (e.g., client level inspection data), these can be incorporated into the above cross-sectional analyses.

4. Data

Data Collection and Processing

We will identify clients of affected audit firms using the publicly-available Form AP disclosures. Financial and market data for US-issuers will be obtained from Compustat and CRSP, respectively. Data on audit engagements will be obtained from Audit Analytics.

Cross-sectional data on PE firm characteristics are available to one of the authors through a contract with StepStone Group. StepStone is a global private markets firm with more than $500

billion of total capital under advisement, including over $125 billion in assets under management. StepStone obtained its PE data directly from general partners (GPs, i.e., the fund managers) as a part of its due diligence process.[8] GPs that sought capital from StepStone or one or more of its clients were required to provide information about all prior funds and investments. The richness of GP-, fund- and deal-level characteristics within the dataset represent a major advantage over existing commercial PE datasets. Access to this PE data requires a non-disclosure agreement, thus, any StepStone data used in this study cannot be made publicly accessible. Cross-sectional data on auditor and client characteristics are available from public datasets (e.g., Audit Analytics, Compustat, and CRSP).

Preliminary investigation of the intersection of Form AP, Compustat, and CRSP data reveals the PE-infused accounting firms audited more than 300 US public issuers each year from 2017 to present.

For equity market tests, the estimated treatment sample (public clients of affected auditors) is *N* of 338 when the PE deal is announced. The estimated control sample is all other US-firms in Compustat and CRSP with related FormAP filings, leading to a potential control sample of more than 4,000 public companies not affected by the announcements of PE investment.

Accounting Firm	**Announcement of PE Investment**	***N* Client-Firm Observations**
Treatment:		
Grant Thornton	Mar 15, 2024	223
Baker Tilly	Feb 5, 2024	66
Smith and Howard	Nov 15, 2022	0
Cherry Bekaert	Jun 30, 2022	15
Citrin Cooperman	Apr 11, 2022	2
Schellman and Co	Sep 17, 2021	0
EisnerAmper	Aug 2, 2021	32
Total Treatment *N* =		**338**
Controls:		
Big 4		2,815
Non-Big 4		1,275
Total Control *N* =		**4,090**

For audit quality tests, the estimated treatment sample in the pre-period is *N* of 528 client firm-years (up to three firm-years prior to a PE deal), and post-period is *N* of 361 client firm-years (up to three firm-years post-PE deal, through 2024). The estimated control sample is all other client firms in Compustat with related FormAP filings, leading to a potential control sample of more than 26,000 client firm-years during the sample period.

[8] This feature is important because it insures against breaks in voluntary reporting by GPs and certain selection biases in other datasets (e.g., those relying on disclosures from public records and Freedom of Information Act requests).

Accounting Firm	Announcement of PE Investment	*N* Client-Firm Observations	
		Pre-PE	Post-PE
Treatment:			
Grant Thornton	Mar 15, 2024	399	139
Baker Tilly	Feb 5, 2024	64	22
Smith and Howard	Nov 15, 2022	0	0
Cherry Bekaert	Jun 30, 2022	33	57
Citrin Cooperman	Apr 11, 2022	3	4
Schellman and Co	Sep 17, 2021	0	0
EisnerAmper	Aug 2, 2021	29	139
Total Treatment *N* =		**528**	**361**
Controls:			
Big 4		8,191	8,725
Non-Big 4		4,646	4,771
Total Control *N* =		**12,837**	**13,496**

Overall, we believe this to be a sufficient treatment sample size to perform the proposed analyses. The data collection process is straightforward, and the authors already have access to the primary datasets.

Pilot Data

A pilot study has not been completed.

5. Interpreting Results

We believe the results of these analyses will provide useful insights into perceptions and actual changes in audit quality due to PE investments in accounting firms.

For the equity return analyses, an observed positive average market return for clients of auditors receiving PE investment would be consistent with equity markets expecting net improvements in audit quality and/or cost savings being passed on through lower audit fees. An observed negative average market return for clients of auditors receiving PE investment would be consistent with equity market expectations of net reductions in audit quality, leading to either high costs and/or higher risk.

For the audit quality analyses, a finding of improved audit quality measures (e.g., lower accruals or decreased probability of meeting/beating an expectation measure) would suggest PE investment in audit firms leads to improvements in auditor operational performance. A finding of reduced audit quality measures (e.g., higher accruals) would suggest PE investment in audit firms leads to degraded audit quality, consistent with critiques of PE investment expressed by regulators.

Overall, these analyses will provide the first data-driven evidence on the perceived and real effects of PE investment in accounting firms. Given the recent and growing trend of such investments within accounting firms, we believe our results will be of high interest to:

- *regulators*, trying to understand the implications of alternative audit firm ownership structures on capital market-relevant outcomes (such as audit quality);
- *accounting firms*, which may be considering ownership changes to remain competitive in the market;
- *client firms and their investors*, which wish to understand the implications of these new ownership structures on key indicators needed to report on and assess the financial health of the firm; and
- *private equity and investment firms,* which may be considering the accounting industry firms as potential investment opportunities.

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