From Big Four to Wall Street:
Sell-Side Analysts with an Accounting Background

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July 2024

Abstract

Using hand-collected data, we provide evidence on the information and monitoring roles of sell-side equity analysts who previously studied or worked in accounting. Relative to the average analyst, only former auditors issue more accurate EPS forecasts and more profitable sell—but not buy—recommendations. Firms covered by former auditors are less likely to report material misstatements, suggesting that they play a monitoring role. Analysts with four years or more of prior auditing experience drive the results. In contrast, analysts with a university degree in accounting, a CPA certification, or prior corporate experience as an accountant do not outperform on average. Therefore, we conclude that the combined accounting and industry knowledge acquired during several years of work in public accounting can give former auditors a competitive advantage. Consistent with all the above, former auditors ask more accounting-related questions with a less positive tone than other analysts during earnings conference calls. Overall, our results highlight the extent and limits of accounting expertise in sell-side research.

Keywords: Analysts; Auditors; Earnings conference calls; Earnings forecasts; Monitoring; Valuation; Work experience
JEL: G10; G14; M41; M42

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I. INTRODUCTION

Analysts play a prominent role as information intermediaries, particularly since their forecasting outputs shape market expectations of future earnings and the pricing of securities in capital markets (Bradshaw et al., 2017; Kothari et al., 2016). Consequently, the literature has examined how different analyst characteristics explain differences in the quality of forecasts and other outputs, including their credentials (De Franco and Zhou, 2009) and prior work experience in the industries of the firms they cover (Bradley et al., 2017). Yet, despite the inextricable link between analysts' information processing and accounting data, the prevalence and performance of analysts with accounting expertise remain largely unknown. In this paper, we specifically examine whether analysts who previously studied or worked in accounting differ in the quality of their research relative to other analysts. Our goal is to shed light on the relative importance of accounting knowledge in sell-side research and the skill transferability of professional accountants to finance.

Ex ante, it is not clear whether accounting knowledge or experience can yield a competitive advantage in sell-side equity research. On the one hand, we expect accounting knowledge to help analysts understand financial statements and firms' reporting choices, thus enhancing the soundness of their research and models that support their forecasts and recommendations (Brown et al., 2015). Furthermore, even if from a reporting perspective, those with work experience in accounting can develop an in-depth understanding of either their employer and industry for corporate accountants, or the firms they previously audited and the industry in which they specialized for former auditors.

On the other hand, however, extant research indicates that work experience in accounting may limit or even be detrimental to investment analyses (Griffith et al., 2015; Vera-Munoz, 1998). Also, insofar as a specialization in accounting during one's studies or work experience comes at

the expense of other knowledge (e.g., product market) and skills that are valuable in sell-side research, those with accounting expertise may possibly underperform their peers. It thus remains an empirical question whether and how analysts with accounting knowledge and work experience differ from other analysts in their forecasting and stock recommendation quality.

We first provide descriptive evidence on the prevalence of accountants[1] in the analyst population. Using a hand-collected biographical dataset on 6,551 sell-side analysts over the period 1997 to 2019, we identify their accounting education and work experience by analyzing their LinkedIn profiles. We find that, on average accountants make up 14.73% of all analysts and issue 14.34% of the total annual one-year ahead EPS forecasts in the Institutional Broker Estimate System (I/B/E/S) during our sample period. We observe a steady increase in the proportion of accountants, from about 11% in the late 1990s to more than 15% in the late 2010s. Analysts' accounting background primarily consists of their education, with 14% of analysts reporting a specialization in accounting at the undergraduate or graduate level. Those with prior work experience in accounting mostly consist of former auditors, who account for about 4% of the analyst population.

We next examine the forecast accuracy of analysts with an accounting background based on a sample of more than 330,000 earnings forecasts on about 7,700 unique firms. Using a variety of analyst- and firm-specific control variables and fixed effects, our regression results indicate that, on average, accountants do not differ from other analysts in terms of EPS forecast accuracy. When we break down analysts' accounting background between education, certification, and work experience, we find that accounting work experience is associated with significantly greater EPS

[1] For brevity, we use the term "accountants" to refer to analysts with schooling or work experience in accounting.

forecast accuracy than the average analyst. Going one step further, we find that the results are driven by former auditors. The estimates are economically meaningful. For example, with our most saturated model (i.e., broker and firm-year fixed effects), former auditors' EPS forecasts are, on average, 7.56 percentage points (pp) more accurate, compared to 3.6 pp for analysts with prior industry experience (Bradley et al. 2017). This result is robust to using different (or no) sets of control variables and fixed effects and to different ways of clustering standard errors.

The results so far suggest that accounting knowledge alone does not help analysts formulate more accurate EPS forecasts. Rather, the superior forecasting ability of former auditors is likely due to their combined accounting and industry knowledge. To further support this interpretation, we collect information on whether analysts previously worked for audit firms in branches other than auditing (e.g., consulting). Such analysts have a similar career pathway to former auditors, mitigating concerns of unobserved analyst heterogeneity, such as lingering connections, employer preferences, or on-the-job learning. They should also develop similar industry knowledge (i.e., from an external viewpoint), but not accounting experience. Using a placebo test where we replace former auditors with their non-auditor colleagues, we find that only former auditors issue significantly more accurate forecasts. Next, we split former auditors based on the number of years of their auditing experience, with four years as the cutoff. We find that only former auditors with at least four years of public accounting experience issue more accurate EPS forecasts. This result confirms the joint importance of accounting and industry knowledge in explaining former auditors' superior forecasting ability, as the latter takes time to develop.

Next, we test whether analysts with prior audit experience benefit from covering firms that are audited by their former employer (hereafter "connected former auditors"). There are two channels via which connected former auditors could outperform their peers. First, prior research

finds evidence consistent with connected sell-side analysts having access to private information (e.g., Cohen et al., 2010). Similarly, former auditors could obtain private information from their former colleagues. Indeed, Fung et al. (2023) find that analysts issue more accurate forecasts for companies that share the same auditor as the brokerage house that employs them. Second, connected former auditors may simply have a better understanding of their former employer's "style" (Francis et al., 2014). Our results indicate that former auditors issue more accurate EPS forecasts independent of whether they cover firms audited by their former employer or not.

Complementing the analysis on forecast accuracy, we further test whether accountants differ from other analysts in terms of recommendation profitability. While forecast accuracy generally translates into recommendation profitability (Ertimur et al., 2007), recommendations rely on additional inputs and skills that are not necessarily acquired or nurtured in accounting. Using long-window buy-and-hold-returns (-1,180)) to assess analysts' stock recommendation profitability, we find accountants' recommendations to be no more, but also no less, profitable than those made by their peers. When we separate accounting education, certification, and work experience, we find that former auditors issue more profitable sell recommendations, regardless of their experience or connection with the firm's auditor. With a 6-month risk-adjusted outperformance of close to 4%, the effect is economically meaningful. In contrast, analysts with accounting education issue less profitable sell recommendations. Analysts with a CPA or corporate accounting experience do not differ from the average analyst in terms of recommendation profitability. None of the accountants' subgroups differ from the average analyst in terms of buy recommendation profitability. Overall, the results indicate that former auditors outperform other analysts in terms of forecasting and sell recommendation accuracy. A potential explanation for

former auditors' asymmetric recommendation outperformance is that their skills better translate to detecting bad news than good news.[2]

While we primarily focus on the information role of accountants, we also examine whether they play a monitoring role by looking at the incidence of financial restatements and shareholder lawsuits in the firms they cover. Although the argument that sell-side analysts serve as external monitors of managerial performance goes back to Jensen and Meckling (1976), only few studies explicitly explore this monitoring role (e.g., Irani and Oesch, 2013; Chen et al., 2015). Bradley et al. (2017) find that analysts with prior industry experience are more effective external firm monitors than other analysts. Using a research design similar to Bradley et al. (2017), we find that firms covered by former auditors are significantly less likely to restate their financials. In contrast, coverage by other accountants is either associated with no difference, or even a significantly higher one for CPAs. Furthermore, we find no association between former auditor coverage and securities lawsuits. These results suggest that former auditors monitor firms' accounting choices, but not necessarily disclosure choices, as securities lawsuits are not necessarily driven by GAAP misstatements.

Finally, we use earning conference calls as an observable channel to understand accountants' information gathering practices. We find that former auditors use relatively more accounting-related words in their questions and less positive tone than other analysts on the same calls. Combined, these results are consistent with our main results above.

[2] In additional tests, we examine the timeliness and boldness of former auditors' forecasts and the distribution of their recommendations. Given the nature and objective functions of auditing, we expect former auditors to act more as information processors than producers (Chen et al., 2010). We find that their forecasts are relatively less timely, although by less than four days. We also expect former auditors to be more conservative. Indeed, we find that they issue less 'bold' forecasts.

Our paper contributes to the growing literature on the association between sell-side analysts' characteristics and their outputs. While early studies focus on data observable within I/B/E/S, such as experience and portfolio complexity (Clement, 1999), more recent literature leverages the online availability of analysts' CVs to collect their educational and professional backgrounds. Regarding the latter, Bradley et al. (2017) provide evidence confirming survey data from institutional investors and analysts (Brown et al., 2015) stating the importance of industry knowledge for equity research. De Franco and Zhou (2009) find that CFA charterholders issue timelier and bolder forecasts. While industry experience and CFA certification are both prevalent among sell-side analysts, we examine a unique subset of analysts with accounting education and work experience. Our evidence indicates that an accounting background is increasingly prevalent. Our results also highlight the importance of joint accounting expertise and industry knowledge acquired by experienced former auditors, as evidenced by their forecast accuracy, sell recommendation profitability, and the incidence of restatements in covered firms. At the same time, our results also point to limitations of accounting knowledge for sell-side analysts, given the lack of outperformance by analysts with accounting backgrounds other than former auditors. We thereby add to a limited string of papers that study analysts' professional background and experience.[3]

Our study also sheds light on the monitoring role of analysts (see, e.g., Yu, 2008; Chen et al., 2015; Christensen et al., 2021). Only few studies, such as Bradley et al. (2017), attempt to improve our understanding of the association between analyst characteristics and monitoring. We provide novel evidence consistent with former auditors' monitoring ability regarding GAAP

[3] Other papers examine analysts' behavioral and demographic traits, such as facial traits (Peng et al., 2022), gender (Kumar, 2010), overconfidence (Hilary and Menzly, 2006), culture (Cao et al., 2023), and social skills (Li et al., 2023).

violations. Secondarily, while prior studies examine analysts' behavior after restatements (Ye and Yu, 2017) and shareholder lawsuits (Jennings, 2019), we provide evidence on the potential ex-ante role of analyst coverage and its composition around those events.

Lastly, our paper contributes to the literature on the value of accounting expertise in capital markets. Prior studies find that boards of directors with accounting expertise are associated with better financial reporting quality (Krishnan, 2005), especially when combined with industry expertise (Cohen et al., 2014). Others document tradeoffs associated with accounting expertise for CFOs (Hoitash et al., 2016; Bernard et al., 2020). Our paper brings a new perspective to this literature by examining external stakeholders to the firm – namely, sell-side analysts.

II. LITERATURE AND HYPOTHESES

A subset of the literature on sell-side equity research explores analysts' attributes that are associated with the quality of their output. The early literature, likely in part due to data availability, focuses on differences observable within the analyst population in terms of general experience, firm-specific experience, and breadth of coverage. This evidence indicates that more experienced analysts issue more accurate forecasts (Clement, 1999; Clement et al., 2007; Mikhail et al., 1997) whereas those with more complex portfolios issue less accurate forecasts (Clement, 1999). More recent studies investigate attributes that are either innate to the analyst or at least arguably independent of their profession (such as culture, gender, and physical appearance, see Kumar, 2010; Cao et al., 2020; Cao et al., 2023; Li et al., 2020). Most closely related to our study is Bradley et al. (2017), who show that pre-analyst industry work experience is associated with higher forecasting accuracy and informativeness when analysts cover firms in their industry of experience. De Franco and Zhou (2009) also document that CFA-credentialed analysts issue timelier and bolder forecasts—including before passing the exam—which is consistent with

signaling rather than a knowledge acquisition effect. Nevertheless, a longstanding literature documents analysts' failure to process accounting information in a timely manner (e.g., Ali et al., 1992; Abarbanell and Bushee, 1997). Hence, ex ante it is unclear what role, if any, accounting knowledge—both in and of itself and in conjunction with other skills—plays in shaping analysts' forecasting behavior. Accordingly, we are interested in whether sell-side analysts with an accounting background differ in their outputs from other analysts.

We expect accounting knowledge to be a valuable skill in equity research. Analysts with an accounting background should be more familiar with companies' financial reporting discretion and better understand the mapping of current accruals into future earnings. Brown et al. (2015) find that analysts consider consistency of reporting choices and exclusion of special or one-time issues when they assess the quality of firms' earnings, suggesting that accountants may have a competitive advantage.[4]

Beyond accounting knowledge, as evidenced from schooling or a CPA certification, work experience as an accountant can give an analyst real-world practical knowledge which is potentially valuable. This is especially true for public accountants, who likely develop a deeper understanding of the industries and firms they cover (Christensen et al., 2016), which is highly valued in sell-side research. We also expect accountants to be skilled at eliciting information from management, which translates into better research outputs among sell-side analysts (Yezegel, 2023) and could facilitate access to management, a critical role of sell-side analysts (Brown et al., 2015).

[4] Financial statement analysis is also the second most weighty topic on the CFA Level 1 exam and accounts for about 20% of Level 1 readings (UWorld Finance), pointing to its importance for financial analysis.

Alternatively, however, accountants may also underperform as sell-side analysts. First, while accountants may be particularly skilled at verifying and interpreting reported numbers, forecasting requires the analyst to incorporate knowledge about the firm and industry from various sources. Second, accountants' work does not involve performing valuations per se. In fact, auditors rely heavily on valuation experts to audit fair value measurements (Martin et al., 2006) and often fail to incorporate data from various sources to question management estimates (Griffith et al., 2015). Third, an excessive focus on financial statements may be detrimental to a sound business analysis. For instance, Vera-Munoz (1998) finds that, in a business context, decision-makers with higher accounting knowledge are more likely to ignore opportunity costs than those with low accounting knowledge. However, conversely, Graham et al. (2017) find that managers with a CPA license are more likely to use the correct tax rate in corporate decision making. Lastly, while accounting knowledge and experience are potentially helpful, analysts' prior focus on accounting may come at the expense of other valuable sources of expertise due to time constraints and career path dependency.

Thus, overall, we leave the relative performance of analysts with an accounting background in terms of earnings forecasts and recommendation profitability as empirical questions and present our first two hypotheses in their null form.

H1: Sell-side analysts with an accounting background do not differ from other analysts in earnings forecast accuracy.

H2: Sell-side analysts with an accounting background do not differ from other analysts in recommendation profitability.

The notion that sell-side analysts serve as external monitors of firms and their managers dates back at least to Jensen and Meckling (1976). While a limited body of evidence generally supports the view that sell-side analysts are important monitors (see, e.g., Moyer et al., 1989; Yu, 2008; Kelly and Ljungqvist, 2012), very few studies explicitly address the question of which characteristics and skills enable analysts to successfully perform their monitoring role. Bradley et al. (2017) find that analysts with prior industry experience are more effective external monitors than other analysts. Chen et al. (2015) argue that one channel through which analysts perform a monitoring function is by frequently tracking firms' financial statements and interacting with management in earnings announcement conference calls. We expect analysts with accounting knowledge and experience to have an advantage in tracking financial statements and uncovering accounting irregularities, which should enable them to ask more targeted questions and therefore constrain managers' reporting discretion. However, an alternative would be that accountants are more likely to uncover potential fraud and therefore lead to its revelation. Accordingly, we state our third hypothesis in the null form.

H3: Firms covered by sell-side analysts with an accounting background are no more likely to restate their financial statements or be targeted by a shareholder lawsuit.

III. DATA, METHODOLOGY, AND SUMMARY STATISTICS

III.1 Data

We start our data collection from the I/B/E/S detail history file to identify sell-side analysts issuing earnings forecasts for U.S. firms between 1997 and 2019. We focus on annual earnings forecasts with a horizon of one to 12 months to the actual earnings release. This approach provides us with an initial sample of 3,175,704 earnings forecasts for 14,217 firms issued by 19,118 analysts. We then remove observations with missing firm identifiers ('TICKER'), estimate values ('VALUE'),

and actuals ('ACTUAL'). We also delete all observations for which the unique analyst identifier on I/B/E/S ('ANALYS') is "0" because such observations belong to anonymized analysts who cannot be tracked. Subsequently, we retain the most recent forecast and merge the dataset with CRSP/Compustat. This cleaning process leaves us with a sample of 19,056 analysts issuing 835,156 one-year ahead annual earnings forecasts for 13,947 firms.

From the above sample, we extract a list of unique analyst identifiers and merge the list with the I/B/E/S recommendations detail file to get the analyst's first initial and last name. Removing analysts with missing first initial, last name, or brokerage firm identifier, as well as analyst teams, leaves us with 15,490 analysts. We leverage the online availability of analysts' CVs via LinkedIn.com, the world's largest professional network on the internet, to identify analysts educational and professional backgrounds. To search LinkedIn, we first need analysts' full names. We manually search for all analysts' full names on Google using their first initial, last name, brokerage firm, and the covered firm's name. Then, we search for their LinkedIn profiles using the following criteria: analysts' full names, the brokerage firm and date of their employment. As employment date, we use the earliest I/B/E/S announcement date ('ANNDATS') on which the analyst issued forecasts for the respective brokerage firm. We find LinkedIn profiles for 9,380 analysts and collect all information from their profile header and the "About", "Experience", "Education", and "Licenses & certifications" section. To ensure that we have the correct LinkedIn profile for the I/B/E/S analyst, we screen the profiles based on analyst name similarity, company name similarity, and employment date range (see Appendix B for further details). Our final sample

consists of 6,551 analysts issuing 332,320 one-year ahead annual earnings forecasts for 7,732 firms, as shown in Panel A of Table 1 along with further descriptives.[5]

III.2 Analysts' Accounting Background

We use the collected LinkedIn data to identify our main variable of interest, analysts' accounting background. We define analysts' accounting background as a broad construct that we subsequently break down into its components as shown in Figure 1. Appendix A provides detailed variable definitions for the accounting background variable and its components described in the following.

Starting at the most granular level, *Auditor* is an indicator variable that captures analysts' previous public accounting work experience. It is equal to one if the analyst worked in an audit-related position at an audit firm. Audit firms include, among others, Arthur Andersen, Deloitte, Ernst & Young, KPMG, and PriceWaterhouseCoopers. *Non-auditor* is an indicator variable that is equal to one for analysts who worked at an audit firm but in a non-audit related position. *Corporate accountant* is an indicator variable that captures analysts' previous corporate accounting work experience. It is equal to one if the analyst worked in an accounting-related position at a non-audit firm. Combining public accounting and corporate accounting work experience, *Accounting work experience* is an indicator variable that is equal to one if *Auditor* or *Corporate accountant* is equal to one.

Next, *Accounting education* is an indicator variable that captures analysts' university education in accounting. It is equal to one if the analyst obtained a bachelor's, master's and/ or

[5] In Table A1 of the supplemental Appendix, we compare firms covered by analysts that can be found on LinkedIn to firms covered by analysts without LinkedIn accounts. Both types of firms show almost identical fundamentals. They have identical mean values and similar standard deviations for book-to-market ratio, leverage, R&D, and return on assets, indicating that the firms are similar in terms of risk, profitability, and valuation by the stock market. Firms covered by analysts with LinkedIn accounts are slightly larger and have slightly lower stock returns. We conclude that sample selection is unlikely to be a severe issue for our study.

MBA degree in accounting. *CPA* is an indicator variable that captures analysts' certifications in accounting. It is equal to one if the analyst obtained a certified public accountant (CPA) or chartered accountant (CA, ACA, ACCA) certification. Both indicators combined result in *Accounting knowledge*, an indicator variable that is equal to one if *Accounting education* and/ or *CPA* is equal to one. As a result, *Accountant* is an indicator variable that is equal to one if *Accounting work experience* and/or *Accounting education* is equal to one.

III.3 Methodology

In our main analyses we examine whether analysts with an accounting background issue more accurate earnings forecasts. To this end, we estimate the following ordinary least squares regression model (see equation 1):

$$PMAFEP_{i,j,t} = \beta_0 + \beta_1(Accountant)_{j,t} + \beta_2(Analyst\ controls)_{i,j,t} + \beta_3(Firm\ controls)_{j,t-1} + FEs + \varepsilon_{i,j,t} \quad (1)$$

Consistent with prior literature on analysts' forecasting performance, our main forecast accuracy measure is the proportional mean absolute forecast error (*PMAFE*) established by Clement and Tse (2005). Following Bae et al. (2008), we standardize this absolute forecast error by the latest monthly stock price available from Compustat:

$$PMAFEP_{i,j,t} = \frac{AFEP_{i,j,t} - MAFEP_{j,t}}{MAFEP_{j,t}} \quad (2)$$

PMAFEP is calculated as the difference between the price-scaled absolute forecast error of analyst i publishing forecasts for firm j at time t (*AFEP*) and its mean across all analysts publishing forecasts for firm j at time t (*MAFEP*), which is in turn scaled by *MAFEP*. The absolute forecast error is the difference between analyst i's forecast and the announced actual. Negative values of

PMAFEP indicate better than average forecast performance, i.e., more accurate forecasts. We winsorize *PMAFEP* at the 1st and 99th percentiles.

As our independent variable(s) of interest, we either employ *Accountant* or its components. For detailed definitions of these indicator variables see section III.2 and Appendix A. Consistent with extant literature (e.g., Bradley et al., 2017), we include various analyst- and firm-specific control variables in our regression model (see equation 1). Specifically, we control for several proxies for analysts' forecasting experience and task complexity. First, we include general (*GExp*) and firm-specific forecasting experience (*FExp*). These are calculated as the number of years since analyst i's first earnings forecast was recorded on I/B/E/S and the number of years since analyst i first published earnings forecasts for firm j, respectively. Second, because earnings forecasts tend to become more accurate, the closer they are to the announcement date of the actual earnings, we control for the number of days between the earnings forecast and the actual announcement (*Forecast distance*). We also control for the number of firms covered by the analyst (*Portfolio size*), the number of different two-digit SIC codes of all firms that the analyst follows (*Sic2*), and an indicator variable that equals one if the analyst received the chartered financial analyst certification (*CFA*). Lastly, we also include an indicator variable that equals one if the analyst received an MBA degree (*MBA*).

In terms of firm-specific variables, we control for firm size, book-to-market, the number of analysts covering firm j, stock return over the past 12 months, debt to total assets, intangibles to total assets, R&D expenses to total assets, and return on assets. Appendix A provides definitions of all employed variables. Firm controls are retrieved from CRSP and Compustat. They enter the regressions with one lag to avoid simultaneity bias. We winsorize all continuous control variables at the 1st and 99th percentiles.

To further mitigate concerns of omitted variable bias, we additionally include several fixed effects in our regressions. Our most saturated regression model contains firm*year and broker fixed effects. This way, analysts' forecast accuracy is comparable across brokerage houses, covered firms, and time, whereby we further reduce concerns of unobserved heterogeneity.[6] For robustness, we substitute these fixed effects for (two-digit SIC) industry*year fixed effects in our main regressions, since time-varying industry characteristics that are not captured by firm and year fixed effects may impact firm prospects and hence analyst forecasts.

We cluster standard errors at analyst- and year-levels because residuals plausibly exhibit both time-series dependence (i.e., correlation across years for a given analyst) and cross-sectional dependence (i.e., correlation across analysts in a given year). In this regard, Petersen (2009) shows that additionally clustering on the time dimension can enhance inference validity in panel datasets, if the number of panel years is not too small (certainly above 10, see also Cameron et al., 2011). Since our panel spans 23 years, double clustering appears appropriate. Yet, for robustness, we use different clusters and find that our results do not hinge on the choice of standard errors.

For additional analyses, we use variations of the regression model shown in equation (1) with different dependent or independent variables of interest, while keeping all control variables stable. In some tests, we split the variable *Auditor* into two separate indicator variables while keeping all other variables constant. First, between *Auditor less than 4 years* and *Auditor 4 years or more*, based on the number of years the auditor worked in public accounting. Second, between *Auditor connected* and *Auditor not connected*. The former variable equals one if the auditor of a firm that an analyst with prior audit experience covers is the former employer of that analyst. For

[6] Note that firm controls do not drop when we include firm*year fixed effects because we use the calendar-year of the forecast announcement date instead of the firm's fiscal year as our year fixed effect.

example, if the analyst previously worked for PwC and PwC is the current auditor of a firm that the analyst covers, the variable *Auditor connected* is set to one for that analyst-firm pair. If a firm's current auditor is not the former employer of the analyst, the variable *Auditor not connected* is set to one (*Auditor connected* is then set to zero).

Moreover, to test whether analysts with an accounting background make more profitable stock recommendations, we use regression model (1) but with the dependent variable *BHAR(-1,180*), i.e., the buy-and-hold abnormal return during the (-1,180) trading days of stock recommendations calculated using the Fama-French 3-factor model plus momentum, instead of *PMAFEP*. We also include *Recommendation level* or *Recommendation change* as additional control variables. The latter captures up- and downgrades. We proceed similarly in other tests in which we use regression model (1) with other dependent variables, namely *Forecast boldness*, *Recommendation optimism*, and *Recommendation extremism* (which measure the distribution of forecasts and recommendations) and the two indicator variables *RES* and *LIT*, which equal one if the firm has at least one restatement and litigation, respectively, in the fiscal year. All variables are defined in Appendix A.

III.4 Summary Statistics

Table 1, Panel B presents summary statistics for our dependent variables as well as analyst- and firm-specific control variables. The analyst-specific summary statistics are in line with prior literature (e.g., Bradley et al., 2017, 2020). They are generally comparable across all analysts and the subsample of accountants. When comparing all analysts with the subsample of analysts who are former auditors, we notice that *Forecast distance* (123.93 vs. 120.17) and *Portfolio size* (13.72

vs. 13.30) are both lower for former auditors.[7] We also report the number of years that analysts worked as auditors (*Auditor length*), which amounts to an average of 4.07 years. Further, only 44.50% (83.50%) of analysts who are former auditors report having obtained a CPA certification (education in accounting) according to our LinkedIn data which underlines potential self-reporting biases inherent to LinkedIn data.

Regarding firm-specific control variables, we find that the average firm in our sample tends to be large (mean *Firm size* is 8.02, which equates to an average of $3 billion in total assets) and is covered by 9.21 analysts. This finding is consistent with analysts' tendency to follow larger firms (e.g., Barth et al., 2001). To address the question whether analysts with an accounting background—and more specifically those with public accounting work experience—cover different firms from other analysts, we run multivariate regressions with *Accountant* or *Auditor* as the dependent variable and firm characteristics as determinants. The results are shown in Panel C of Table 1. Across both columns, we find that accountants and former auditors cover firms that are larger, have lower stock returns, and lower R&D expenses compared to firms covered by other analysts which is consistent with Table 1, Panel B. Our subsequent regression analyses, especially those with firm*year fixed effects, ensure that such differences and other unobserved sources of heterogeneity in covered firms are controlled for.

IV. RESULTS

IV.1 Prevalence of Accountants

As illustrated in Figure 2 and shown in Panel A of Table 1, accountants make up an increasing share of analysts and earnings forecasts. While they account for 12% of all analysts at the start of

[7] In Table A2 of the supplemental Appendix, we provide evidence from multivariate regressions also indicating that former auditors have lower forecasting distance (4.4 days). The difference is highly statistically significant ($p<0.01$). We find no difference for portfolio size.

our sample period, they account for almost 16% towards the end of the sample. Over the sample period 1997-2019, accountants make up 14.73% of all analysts and 14.34% of all earnings forecasts, corresponding to more than 47,000 forecasts in total. Similarly, former auditors—a subgroup of accountants—also account for an increasing share of analysts and earnings forecasts. Even though former auditors represent a much smaller group than accountants, they still account for 4.09% of all analysts and 3.76% of all earnings forecasts over the sample period. Moreover, their share has more than doubled. While they account for 2% of all analysts at the start of our sample period, they make up for almost 5% of all analysts towards the end of the sample.

IV.2 Empirical Evidence on Accountants' Forecast Accuracy

We first examine whether analysts with an accounting background differ in the accuracy of their EPS forecasts from other analysts (H1) in Panel A of Table 2 which presents our estimations of equation (1). Since lower values for *PMAFEP* indicate higher accuracy, a negative (positive) coefficient on the variable *Accountant* would indicate that accountants are more (less) accurate than other analysts. In column (1), we present results from a regression with a limited number of firm control variables—those included in Bradley et al. (2017)—as well as industry*year fixed effects. The results in column (2) are based on a regression with additional firm-level controls (for leverage, intangibles, R&D, and ROA) and broker, firm, and year fixed effects. In column (3), we present our most saturated model with firm*year and broker fixed effects. To better compare our evidence to related extant work, we present results from a regression specification following Bradley et al. (2017) in column (4), which includes de-meaned analyst-level control variables, the limited number of firm control variables, and no fixed effects. Lastly, the results in column (5) are based on a regression equivalent to that in column (2), where we use standard errors clustered at

the analyst- and firm-levels (again as per Bradley et al., 2017) instead of standard errors clustered at the analyst- and year-levels.

The regression results in Panel A of Table 2 show that the coefficient on *Accountant* is insignificant irrespective of the model specification, indicating that accountants do not differ from other analysts in terms of forecast accuracy. Yet, *Accountant* is a broad construct that combines two distinct attributes: work experience and knowledge. Hence, we perform the same regressions as in Panel A but decompose *Accountant* into *Accounting work experience* and *Accounting knowledge*. Table 2, Panel B, reports the results. Throughout columns (1) to (5), we find a negative coefficient on *Accounting work experience*, which is significant at the 5% level, independent of how we cluster standard errors and of the fixed effects structure. The coefficient on *Accounting knowledge* is insignificant. In untabulated tests, we find no significant difference between the coefficients on both variables. This evidence indicates that analysts with work experience in accounting significantly outperform the average analyst, whereas analysts with accounting knowledge do not. Both work experience and knowledge can be broken down further. *Accounting work experience* can be broken down into public accounting work experience (*Auditor*) and corporate accounting work experience (*Corporate accountant*) while *Accounting knowledge* can be broken down into *Accounting education* and *CPA*. Table 2, Panel C, presents the results implementing this decomposition. In line with our results on *Accounting knowledge* in Table 2, Panel B, we find insignificant coefficients on *Accounting education* and *CPA*. Throughout columns (1) to (5), the coefficient on *Auditor* is negative and significant at the 5% level or better. The coefficient on *Corporate accountant* is insignificant. The difference between these coefficients, however, is insignificant. Thus, former auditors significantly outperform the average analyst, whereas others with accounting experience or knowledge do not. Regarding the economic

significance of our results, the estimates in column (3) suggest that – for the same firm-year – analysts who are former auditors issue earnings forecasts that are, on average, 7.56 percentage points more accurate than those issued by other analysts from the same broker. The coefficient estimate for *Auditor* is also meaningful when compared to the sample mean for *PMAFEP* (i.e., 0.0756/0.2480=31%). The magnitude is slightly higher (8.4 percentage points) when we use industry*year fixed effects (in column 1) or omit all fixed effects (in column 4).[8]

Our control variables are also in line with economic intuition and prior literature. For instance, analysts who have spent more time in the analyst profession issue more accurate earnings forecasts (variable *GExp*). Earnings forecasts issued for firms with greater analyst coverage are more accurate (variable *Analyst following*). Also, the longer the distance between the announcement of the earnings forecast and the announcement of the actual earnings, the less accurate the prediction (variable *Forecast distance*), consistent with, e.g., Cooper et al. (2001) and Shroff et al. (2014).[9] We hypothesize that former auditors' combined accounting and industry knowledge set them apart from other analysts, potentially along with their connections to their prior employers.

[8] We conduct additional robustness tests on the above results, which we do not tabulate for brevity. First, when we re-estimate the regressions in Table 2 clustering standard errors at the analyst level only, our results remain qualitatively similar throughout all regressions. Second, we find qualitatively similar results when we re-estimate the regressions in columns (1), (2), and (3) without any control variables or just with the respective fixed effects. We also find qualitatively similar results when we use the proportional mean absolute forecast error, PMAFE, instead of PMAFEP. Hence, our results do not hinge on the choice of control variables, fixed effects, standard errors or how we measure forecast accuracy.

[9] In addition to the above results, we also study whether former auditors issue more accurate forecasts for firms' two- and three-year ahead earnings. We adjust *PMAFEP* accordingly, using two- and three-year ahead actual and forecasted earnings. We then re-estimate the regressions in columns (1) to (3) of Table 2, Panel C, for the two dependent variables *PMAFEP 2-year ahead* and *PMAFEP 3-year ahead*, which measure two- and three-year ahead forecast accuracy. Table A3 in the supplemental Appendix presents the regression results. In all regressions, the coefficient on *Auditor* is negative. However, the coefficient is statistically significant at the 5% level only for two-year ahead earnings forecasts. The estimates are economically significant, although smaller than for one-year ahead forecasts. For the most saturated regression (shown in column 3), we find former auditors to be associated with 2.76 percentage points more accurate forecasts for two-year ahead earnings. We conclude that the benefits of prior work experience in auditing also extend to more distant earnings forecasts.

While our tests control for other analysts with comparable accounting knowledge, we do not benchmark the industry knowledge of former auditors. For that purpose, we analyze the forecast accuracy of analysts who also worked at an audit firm but in a non-audit related position. These analysts have similar career pathways as former auditors, which reduces concerns of unobserved analyst heterogeneity (e.g., lingering connections, employer preferences, audit firm-specific learning on the job), but lack work experience in auditing. They should arguably have similar industry knowledge but relatively less knowledge regarding financial statements and accounting in general. To that end, we replace the variable *Auditor* with *Non-auditor*, which equals one for analysts who previously worked for an audit firm but not in auditing, and re-estimate the regression in column (2) of Table 2, Panel C. We show the results in column (6) of Table 2, Panel C. This regression serves as a placebo test: If former auditors' earnings forecasts are more accurate due to both their enhanced understanding of financial statements and their understanding of the industry, then we should expect forecasts issued by former audit firm employees without work experience in auditing to be no more accurate than forecasts by other analysts, unless audit firm experience benefits analysts. The statistically insignificant coefficient on *Non-auditor* supports this expectation. Hence, it is not audit firm experience or covariates of audit firm career pathways in general that benefit analysts, but their work experience in auditing.

IV.3 Cross-sectional Variation in Former Auditors' Forecast Accuracy

The results so far indicate that former auditors outperform other analysts in terms of EPS forecast accuracy. We posit that former auditors stand out in terms of combined accounting and industry knowledge relative to other analysts and other accountants. To better understand what drives former auditors' superior forecasting, we split the *Auditor* indicator between *Auditor less than 4 years* and *Auditor 4 years or more*, where four years corresponds to the sample median in terms

of auditing experience and re-run our main test. We do the same for former corporate accountants. Table 3, Panel A, reports the results. We find a negative coefficient on both *Auditor less than 4 years* and *Auditor 4 years or more*. However, only the coefficient on *Auditor 4 years or more* is statistically significant. Hence, only former auditors with significant public accounting experience issue more accurate EPS forecasts than other analysts. In contrast, experience does not affect former corporate accountants' forecasting performance. Overall, the evidence is consistent with experienced former auditors acquiring valuable industry knowledge during their public accounting career, in combination with their accounting knowledge.

We present an additional test that exploits variation across the specific audit firms where analysts previously gained auditor work experience. More specifically, we test whether former auditors benefit from covering firms that are audited by their former employer. Our results might be driven by instances in which former auditors issue forecasts for firms audited by their former employers, either because of a better understanding of their former employer's audit style, or due to private information sharing with their former colleagues. Indeed, although the results of our placebo test provide some indication that analysts' lingering connections to audit firms (established by prior audit firm work experience) do not to explain our results, we cannot fully rule out that analysts may obtain private information from former colleagues.[10]

To test whether connected former auditors drive our results, or whether they issue at least more accurate EPS forecasts than non-connected former auditors, we re-estimate the regressions in columns (1), (2) and (3) of Table 2, Panel C, substituting the variable *Auditor* for the two

[10] Extant evidence suggests that analysts who have connections to the firms they cover have access to private information (Cohen et al., 2010; Bradley et al., 2020; Li et al., 2020). Also, Fung et al. (2023) find that analysts issue more accurate forecasts for companies that share the same auditor as the brokerage house that employs them, while Chen et al. (2022) provide evidence consistent with the notion of information sharing between socially connected auditors and investors.

variables *Auditor connected* and *Auditor not connected*. Table 3, Panel B, presents the results from these regressions. They suggest that both connected and non-connected former auditors issue forecasts that are more accurate than those of analysts without prior auditing work experience. In particular, the coefficient on *Auditor connected* is -0.1158 in column (3), while that on *Auditor not connected* is -0.0609. Both coefficients are statistically significant at the 5% level or better. In untabulated tests, however, we find insignificant F-tests on coefficient differences. Taken together, the results from Table 3, Panel B, suggest that our results are not driven exclusively by connected former auditors – ruling out a private communication channel.

IV.4 Accountants' Recommendation Profitability

In the following, we examine whether accountants differ from other analysts in terms of the profitability of their stock recommendations (H2). Answering this question helps not only to better understand former auditors' competitive advantage, but also if they benefit from private information received from prior audit firm colleagues when issuing more accurate earnings forecasts for firms audited by their former employers. We would expect such private information to be reflected in more profitable recommendations, as has been shown for other channels of analysts' private information (e.g., Cohen et al., 2010; Bradley et al., 2020).

We examine longer window returns following analysts' most recent stock recommendation during the fiscal year as a proxy for recommendation profitability. In particular, we regress the buy-and-hold abnormal return calculated using the Fama-French 3-factor model plus momentum starting one trading day prior to and ending 180 trading days after the recommendation announcement (i.e., *BHAR(-1,180)*) on *Accountant* and subsets thereof.[11] We additionally include

[11] We derive similar results based on BHAR(-1,30), BHAR(-1,80), and BHAR(-1,120). We also obtain similar results when we control either for the level of the recommendation (e.g., strong sell, sell, or hold) or the change thereof if it is an upgrade or downgrade.

fixed effects for firm and recommendation month. We conduct the regressions separately for buy and sell stock recommendations, where buy (sell) recommendations include strong buy and buy (hold, underperform, and sell) recommendations.

Table 4, Panel A, presents the results for buy recommendations. In brief, none of the coefficients of interest is statistically significant. That is, former accountants—irrespective of education, prior work experience and length thereof or connections—outperform or underperform other analysts in terms of buy recommendation profitability.

Table 4, Panel B, presents the results for sell recommendations. In column (1), the coefficient on *Accountant* is insignificant, indicating that former accountants do not underperform or outperform other analysts in terms of sell recommendation profitability. In column (2), though, a more nuanced picture emerges. The coefficient on *Accounting work experience* is negative and significant, whereas the one on *Accounting education* is positive and significant. That is, relative to the average analyst, those with prior work experience in accounting issue more profitable sell recommendations, whereas those with a university degree in accounting issue less profitable ones. Peeling the onion further, we see that the outperformance of former professional accountants is driven by former auditors (column 3), irrespective of the length of their prior experience (column 4) and who are not alumni of the firm's auditor (column 5). Overall, the results indicate that former auditors' superior forecasting translates into more profitable sell recommendations. The asymmetric results with respect to sell vs. buy recommendations suggests that former auditors are more skilled at detecting bad news than good news.

IV.5 Former Auditors' Monitoring Role

To test whether accountants differ from other analysts in terms of monitoring (H3), we consider the incidence of financial restatements and shareholder securities lawsuits. We obtain settled and ongoing shareholder securities lawsuits from the Stanford Securities Class Action Clearinghouse[12] and material restatements identified based on firms filing 8-K forms from Audit Analytics. Since our main results so far are driven by former auditors, we examine disaggregated results right away. In particular, our main variable of interest is the total number of analysts following a firm decomposed into former auditors, corporate accountants, analysts with university education in accounting, CPAs and other analysts without an accounting background.[13] In further analyses we split the number of former auditors following a firm into those with less than four years and those with four or more years of audit work experience, or into connected and non-connected former auditors. We estimate linear probability models to test whether coverage by former auditors is related to the probability of a firm committing financial misreporting in a given year in the form of material restatements (captured by the variable *RES*) or being sued (variable *LIT*). We separately regress *RES* and *LIT* on the variables *Auditor following* (or alternatively on *Auditor less than 4 years following* and *Auditor 4 years or more following*, or *Auditor connected following*, and *Auditor not connected following*), *Corporate accountant following*, *Accounting education following*, *CPA following* and *Other analysts following* along with the same analyst- and firm-specific controls as in previous analyses as well as firm and year fixed effects. Since we include

[12] We thank Cornerstone Research and Stanford Law School for sharing the data with us. The views expressed in the paper are views of the authors and do not represent in any way the views of Cornerstone Research or Stanford Law School.

[13] Our results are qualitatively similar if we follow Yu (2008) and Bradley et al. (2017) and use residual analyst following (estimated separately for former auditors, corporate accountants, analysts with university education in accounting, CPAs, and other analysts) as our main proxy for analyst following. Residual analyst following is defined as the component of analyst following uncorrelated with firm size, return on assets, total assets growth, external financing, and cash flow volatility.

firm fixed effects, we limit the sample to firms that are subject to a restatement or litigation at least once over our sample period. We cluster standard errors at the firm level.

The regression results, shown in Table 5, suggest that firms covered by (more) former auditors are significantly less likely to commit financial misreporting. Particularly, the coefficient on *Auditor following* is negative and statistically significant at the 1% level in column (1). In terms of the economic magnitude, the coefficient suggests that a one-unit increase in *Auditor following* is associated with a decrease of 1.75% in the average firm's probability to make a material restatement. However, the results in column (2) indicate that former auditor coverage is not significantly associated with the probability of firms facing securities litigation. Further, the results in columns (3) and (5) show that the findings in column (1) are driven by more experienced former auditors and by former auditors who cover firms that are currently not being audited by their former employer. Overall, the results in Table 5 suggest former auditors play a monitoring role, which may also explain their ability to issue more profitable sell recommendations.

V. ADDITIONAL ANALYSES

V.1 Distributional Properties of Former Auditors' Forecasts and Recommendations

To complement the above analyses, we additionally study forecast boldness as well as optimism and extremism in analysts' stock recommendations. Accounting fundamentally differs from equity research in terms of its objective function. Accordingly, it is possible that accountants, either because of innate traits or their prior work experience, are less likely to issue forecasts and recommendations that deviate from consensus, especially on the upside. Of course, those that self-select into sell-side equity research may not exhibit this tendency, leaving the question as an empirical one.

We compute *Forecast Boldness* as the absolute deviation of analyst i's EPS forecast for firm j from the average of those issued by all other analysts covering firm j. Forecast boldness has been shown to be positively associated with accuracy (Clement and Tse, 2005). We further use two dependent variables to test whether former auditors differ in terms of how optimistic or extreme their recommendations are. *Recommendation optimism* is a categorical variable that takes values between -2 ('Sell') and +2 ('Strong Buy'). Larger values indicate more analyst optimism. *Recommendation extremism* is an indicator variable that equals one for 'Sell' or 'Strong Buy' recommendations (and zero otherwise). Larger values indicate that analysts issue more extreme recommendations. Although evidence suggests that analyst recommendations are overly positive (e.g., Lin and McNichols, 1998; Malmendier and Shanthikumar, 2014), the determinants of analyst optimism and extremism are still not well understood.

We re-estimate the regression in column (2) of Table 2, Panel C, with the above dependent variables. We control for important determinants of optimism, such as analyst tenure, broker fixed effects, and firms' past returns. The regression results, shown in Table 6, suggest that former auditors issue relatively less bold forecasts, but equally optimistic and extreme recommendations compared to other analysts. CPAs issue relatively more pessimistic recommendations, as per column (2). Overall, though, we do not observe strong patterns suggesting a systematic bias in accountants' forecasts and recommendations.

V.2 Accountants' Covered Firms' Earnings Conference Call Transcripts

When preparing earnings forecasts and stock recommendations, analysts rely on firms' quarterly earnings conference calls as a tool to communicate with firm management. Earnings calls therefore present an observable channel of analysts' information gathering, and, as such, they may help us shed light on the type of information that analysts with(out) accounting background focus

on in their research. If work experience and training shape the thinking and information processing capabilities of analysts, such differences may be reflected in analysts' language and the types of questions they ask in conference calls. Importantly, accounting analysts' questions on earnings calls may further help us understand why they issue significantly more accurate EPS forecasts and significantly more profitable sell recommendations. In this regard, we examine the extent to which accountants' questions contain accounting-related words. We assume that asking more accounting-related questions may benefit EPS forecast accuracy and monitoring of financial reporting quality. For completeness, we also examine the tone of accountants' questions, which may shed light on the profitability of their sell recommendations and monitoring role.

We obtain all full text earnings conference call transcripts available through Capital IQ from 2005 to 2019 for the firms in our final sample that are covered by accountants. Then, we only keep the full text related to analysts' questions (i.e., 'speakertype' = 3 and 'transcriptcomponenttypeid' = 3 or 8). This leaves us with a sample of 147,405 earnings conference call transcripts for 3,854 unique firms. We identify questions raised by accountants using a name matching algorithm based on the analyst's name recorded in LinkedIn and Capital IQ ('transcriptpersonname').

To measure the degree to which conference call questions are accounting-related, we use the ratio of accounting words to total words (i.e., *Accounting ratio*) included in the analyst's question. We identify accounting words by manually classifying words from the Loughran and McDonald master dictionary. We report the full list in Appendix C. The tone of analysts' questions is the difference between positive and negative words scaled by total words. Positive and negative words are identified based on the sentiment wordlist from Loughran and McDonald. We eliminate the word "question" from the list of negative words. Further, we adjust for negations and do not

count the word “good” if it is followed by "morning", "afternoon", "evening", or "day" or the word “efficiency” if it is followed by “ratio”. Before we use these variables in our analyses, we summarize the dataset by analyst-call, i.e., if an analyst makes several statements during a call, we add the total number of words, total number of accounting words etc. of all statements. This allows us to include earnings call fixed effects to simultaneously account for cross-sectional and time-series fixed effects in our multivariate regression analysis.

Table 7 presents the results of Poisson pseudo-likelihood regressions of *Total Words*, and of OLS regressions of *Accounting ratio*, or *Tone* on *Accounting work experience* and *Accounting knowledge* or, alternatively, their components.[14] Columns (1) and (2) document that analysts with work experience in accounting and in particular those with public accounting work experience ask significantly longer questions than the average analyst. At the same time, their questions contain more accounting words than those of other analysts as shown in columns (3) and (4). Questions from analysts trained in accounting, on the other hand, contain fewer accounting words. Lastly, columns (5) and (6) indicate that the tone of former auditors’ questions is significantly more negative than the tone of other analysts’ questions.

Combined, the above results are consistent with our main findings and provide additional evidence that analysts with work experience in accounting, particularly in public accounting, place stronger emphasis on accounting information and tend to be more pessimistic in their line of questioning. The findings presented in this section may hence explain why former auditors provide earnings forecasts with greater accuracy, are associated with better financial reporting monitoring, and issue more profitable sell recommendations.

[14] In the regressions, we cluster standard errors at the firm-level. However, our results remain unchanged if we cluster at the firm- and calendar-quarter levels instead.

VI. CONCLUSIONS

In this paper, we document that the share of analysts with accounting education and prior work experience in accounting has significantly increased over the last two decades. Among those analysts, former auditors play significant informational and monitoring roles. In terms of information, our results suggest that former auditors issue more accurate earnings forecasts and more profitable sell recommendations. Additional tests suggest that former auditors' superior forecast accuracy is attributable jointly to their accounting and industry knowledge. In contrast, we find no evidence that access to private information via connections with covered firms' auditors explain the results. Former auditors also appear to play a monitoring role, given the lower likelihood of restatements in the firms they cover. We also find that they ask longer questions with more accounting content and less optimistic tone than other analysts during earnings conference calls.

The results of our study should be informative to practitioners. As candidacies for the CPA exam decline and auditing firms struggle to attract or retain talent, our results suggest that prior experience in accounting is increasingly valued in sell-side research. For prospective graduates who are hesitant to begin a career in accounting, our results show that there is a viable pathway to finance. For prospective employers, the results suggest that they face labor market competition from finance not only for college graduates but also more seasoned employees.

Our study comes with caveats. Chief among those is the self-reporting bias in LinkedIn profiles. Our analysis only captures what analysts choose to report in terms of education, work experience, and certifications. Nevertheless, the fact that one in seven analysts with data available has some accounting education or professional experience suggests that it is worth investigating.

REFERENCES

Abarbanell, J., and Bushee, B. (1997). Fundamental analysis, future earnings, and stock prices. *Journal of Accounting Research* 35(1), 1-24.

Ali, A., Klein, A., and Rosenfeld, J. (1992). Analysts' use of information about permanent and transitory earnings components in forecasting annual EPS. *The Accounting Review* 57(1), 183-198.

Bae, K. H., Stulz, R. M., and Tan, H. (2008). Do local analysts know more? A cross-country study of the performance of local analysts and foreign analysts. *Journal of Financial Economics* 88(3), 581-606.

Barth, M. E., Kasznik, R., and McNichols, M. F. (2001). Analyst coverage and intangible assets. *Journal of Accounting Research* 39(1), 1-34.

Bernard, D., Ge, W., Matsumoto, D., and Toynbee, S. (2021). Implied tradeoffs of chief financial officer accounting expertise: Evidence from firm-manager matching. *Management Science* 67(9), 5776-5799.

Bozanic, Z., Roulstone, D. T., and Van Buskirk, A. (2018). Management earnings forecasts and other forward-looking statements. *Journal of Accounting and Economics* 65(1), 1-20.

Bradley, D., Gokkaya, S., Liu, X., and Xie, F. (2017). Are all analysts created equal? Industry expertise and monitoring effectiveness of financial analysts. *Journal of Accounting and Economics* 63(2-3), 179-206.

Bradley, D., Gokkaya, S., and Liu, X. (2017). Before an analyst becomes an analyst: Does industry experience matter? *Journal of Finance* 72(2), 751-792.

Bradley, D., Gokkaya, S., and Liu, X. (2020). Ties that bind: The value of professional connections to sell-side analysts. *Management Science* 66(9), 4118-4151.

Bradshaw, M., Ertimur, Y., and O'Brien, P. (2017). Financial analysts and their contribution to well-functioning capital markets. *Foundations and Trends in Accounting* 11(3), 119-191.

Brown, L. D., Call, A. C., Clement, M. B., and Sharp, N. Y. (2015). Inside the "black box" of sell-side financial analysts. *Journal of Accounting Research* 53(1), 1-47.

Cao, Y., Guan, F., Li, Z., and Yang, G. (2020). Analysts' beauty and performance. *Management Science* 66(9), 3799-4358.

Cao, Y., Hao, R., and Yang, G. (2023). National culture and analysts' forecasting. *Review of Accounting Studies*, Forthcoming.

Cameron, A. C., Gelbach, J. B., and Miller, D. L. (2011). Robust inference with multiway clustering. *Journal of Business and Economic Statistics* 29(2), 238-249.

Chen, X., Cheng, Q., and Lo, K. (2010). On the relationship between analyst reports and corporate disclosures: exploring the roles of information discovery and interpretation. *Journal of Accounting and Economics, 49*, 206–226.

Chen, T., Harford, J., and Lin, C. (2015). Do analysts matter for governance? Evidence from natural experiments. *Journal of Financial Economics* 115(2), 383-410.

Chen, Y., Huang, J., Li, T., and Pittman, J. (2022). It's a small world: The importance of social connections with auditors to mutual fund managers' portfolio decisions. *Journal of Accounting Research* 60(3), 901-963.

Christensen, B., Glover, S., Omer, T., and Shelley, M. (2016). Understanding audit quality: Insights from audit professionals and investors. *Contemporary Accounting Research* 33(4), 1648-1684.

Christensen, T. E., Gomez, E., Ma, M., and Pan, J. (2021). Analysts' role in shaping non-GAAP reporting: Evidence from a natural experiment. *Review of Accounting Studies* 26, 172-217.

Clement, M. B. (1999). Analyst forecast accuracy: Do ability, resources, and portfolio complexity matter? *Journal of Accounting and Economics* 27(3), 285-303.

Clement, M., Koonce, L., and Lopez, T. (2007). The roles of task-specific forecasting experience and innate ability in understanding analyst forecasting performance, *Journal of Accounting and Economics* 44(3), 378-398.

Clement, M. B., and Tse, S. Y. (2005). Financial analyst characteristics and herding behavior in forecasting. *Journal of Finance* 60(1), 307-341.

Cohen, J. R., Hoitash, U., Krishnamoorthy, G., and Wright, A. M. (2014). The effect of audit committee industry expertise on monitoring the financial reporting process. *The Accounting Review* 89(1), 243-273.

Cohen, L., Frazzini, A., and Malloy, C. (2010). Sell-side school ties. *Journal of Finance* 65(4), 1409-1437.

Cooper, R. A., Day, T. E., and Lewis, C. M. (2001). Following the leader: A study of individual analysts' earnings forecasts. *Journal of Financial Economics* 61(3), 383-416.

De Franco, G., and Zhou, Y. (2009). The performance of analysts with a CFA® designation: The role of human-capital and signaling theories. *The Accounting Review* 84(2), 383-404.

Dyck, A., Morse, A., and Zingales, L. (2010). Who blows the whistle on corporate fraud? *Journal of Finance* 65(6), 2213-2253.

Ertimur, Y., Sunder, J., and Sunder, S. V. (2007). Measure for measure: The relation between forecast accuracy and recommendation profitability of analysts. *Journal of Accounting Research* 45(3), 567-606.

Francis, J., Pinnuck, M. L., and Watanabe, O. (2014). Auditor style and financial statement comparability. *The Accounting Review* 89(2), 605-633.

Fung, S., Jiang, L., Pittman, J., Wang, Y., and Zhang, S. (2023). Auditor-client reciprocity: Evidence from forecast-issuing brokerage houses and forecasted companies sharing the same auditor. *Contemporary Accounting Research* 40(3), 1823-1855.

Graham, J., Hanlon, M., Shevlin, T., and Shroff, N. (2017). Tax rates and corporate decision making. *Review of Financial Studies* 30(9), 3128-3175.

Griffith, E. E., Hammersley, J. S., and Kadous, K. (2015). Audits of complex estimates as verification of management numbers: How institutional pressures shape practice. *Contemporary Accounting Research* 32(3), 833-863.

Hilary, G., and Menzly, L. (2006). Does past success lead analysts to become overconfident? *Management Science* 52(4), 489-500.

Hoitash, R., Hoitash, U., and Kurt, A. C. (2016). Do accountants make better chief financial officers? *Journal of Accounting and Economics* 61(2–3),414-432.

Irani, R., and Oesch, D. (2013). Monitoring and corporate disclosure: Evidence from a natural experiment. *Journal of Financial Economics* 109(2), 398-418.

Jennings, J. (2019). The role of sell-side analysts after accusations of managerial misconduct. *The Accounting Review* 94(1), 183-203.

Jensen, M. C., and Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics* 3(4), 305-360.

Kelly, B., and Ljungqvist, A. (2012). Testing asymmetric-information asset pricing models. *Review of Financial Studies* 25(5), 1366-1413.

Kothari, S. P., So, E., and Verdi, R. (2016). Analysts' forecasts and asset pricing: A survey. *Annual Review of Financial Economics* 8, 197-219.

Krishnan, J. (2005). Audit committee quality and internal control: An empirical analysis. *The Accounting Review* 80(2), 649-675.

Kumar, A. (2010). Self-selection and the forecasting abilities of female equity analysts. *Journal of Accounting Research* 48(2), 393-435.

Li, C., Lin, A. P., and Lu, H. (2023). The effect of social skills on analyst performance. *Contemporary Accounting Research* 40(2), 1418-1447.

Li, C., Lin, A. P., Lu, H., and Veenstra, K. (2020). Gender and beauty in the financial analyst profession: evidence from the United States and China. *Review of Accounting Studies* 25, 1230-1262.

Li, Z., Wong, T. J., and Yu, G. (2020). Information dissemination through embedded financial analysts: Evidence from China. *The Accounting Review* 95(2), 257-281.

Lin, H. W., and McNichols, M. F. (1998). Underwriting relationships, analysts' earnings forecasts and investment recommendations. *Journal of Accounting and Economics* 25(1), 101-127.

Malmendier, U., and Shanthikumar, D. (2014). Do security analysts speak in two tongues? *The Review of Financial Studies* 27(5), 1287-1322.

Martin, R. D., Rich, J. S., and Wilks, T. J. (2006). Auditing fair value measurements: A synthesis of relevant research. *Accounting Horizons* 20, 287-303.

Mikhail, M., Walther, B., and Willis, R. (1997). Do security analysts improve their performance with experience? *Journal of Accounting Research* 35, 131-157.

Moyer, R. C., Chatfield, R. E., and Sisneros, P. M. (1989). Security analyst monitoring activity: Agency costs and information demands. *Journal of Financial and Quantitative Analysis* 24(4), 503-512.

Peng, L., Teoh, S. H., Wang, Y., and Yan, J. (2022). Face value: Trait impressions, performance characteristics, and market outcomes for financial analysts. *Journal of Accounting Research* 60(2), 653-705.

Petersen, M. A. (2009). Estimating standard errors in finance panel data sets: Comparing approaches. *Review of Financial Studies* 22(1), 435-480.

Shroff, P. K., Venkataraman, R., and Xin, B. (2014). Timeliness of analysts' forecasts: The information content of delayed forecasts. *Contemporary Accounting Research* 31(1), 202-229.

UWorld Finance. https://finance.uworld.com/cfa/financial-statement-analysis/.

Vera-Munoz, S. C. (1998). The effects of accounting knowledge and context on the omission of opportunity costs in resource allocation decisions. *The Accounting Review* 73(1), 47-72.

Ye, C., and Yu, L.-H. (2017). The effect of restatements on analyst behavior. *Journal of Business, Finance, and Accounting* 44(7-8), 986-1014.

Yezegel, A. (2023). The value of eliciting information: Evidence from sell-side analysts. *The Accounting Review* 98(3), 459-486.

Yu, F. F. (2008). Analyst coverage and earnings management. *Journal of Financial Economics* 88(2), 245-271.

Appendix A: Variable definitions

Variable	Description
(D)FExp	The total number of years since analyst's i first earnings forecast for firm j (minus the average number of years I/B/E/S analysts supply earnings forecasts for firm j) at time t.
(D)Forecast distance	The forecast distance of analyst's i forecast (minus the average forecast distance of forecasts issued by analysts following firm j) at time t.
(D)GExp	The total number of years that analyst i appeared in I/B/E/S (minus the average tenure of analysts issuing earnings forecasts for firm j) at time t.
(D)Portfolio size	The number of firms followed by analyst i for firm j at time t (minus the average number of firms followed by analysts issuing earnings forecasts for firm j) at time t.
(D)Sic2	The number of two-digit SICs followed by analyst i at time t (minus the average number of two-digit SICs followed by analysts following firm j) at time t.
Accountant	Indicator variable that is equal to one if the analyst has work experience in an audit-related position at an audit firm or work experience in an accounting-related position at a non-audit firm and/ or obtained education in accounting and/ or obtained a CPA certification (and zero otherwise).
Accounting education	Indicator variable that is equal to one if the analyst obtained a bachelor's, master's and/ or MBA degree in accounting (and zero otherwise).
Accounting education following	Number of unique analysts who obtained a bachelor's, master's, and/ or MBA degree in accounting issuing earnings forecasts for firm j at time t.
Accounting knowledge	Indicator variable that is equal to one if the analyst obtained education in accounting and/ or obtained a CPA certification (and zero otherwise).
Accounting ratio	The total number of accounting words that an analyst said during an earnings conference call scaled by the total number of words (s)he said during the same call.
Accounting work experience	Indicator variable that is equal to one if the analyst has work experience in an audit-related position at an audit firm or work experience in an accounting-related position at a non-audit firm (and zero otherwise).
Analyst following	Number of unique analysts issuing earnings forecasts for firm j at time t.
Auditor	Indicator variable that is equal to one if the analyst worked at an audit firm in an audit-related position (and zero otherwise). We include the following audit firms (as well as its predecessors): - Compustat North America Fundamentals Annual variable 'au': Arthur Andersen, PriceWaterhouseCoopers, Ernst & Young, KPMG, Deloitte, BDO, BKD, CliftonLarsonAllen, Crowe Horwath, Grant Thornton, CohnReznick, McGladrey, PKF, Plante & Moran, Spicer Oppenheim - Internet search: Norrie stokes, CLB Coopers, Blackman Kallick, Fuller Landau, UHY, Gumbiner Savett, Hergott Duval Stack, Hein & Associates, ATA, S.B. Billimoria & Co., K.S. Aiyar, Mazars, Bentleys, Sharp & Tannan, Goldstein Golub Kessler, Coehn Weisinger Smallberg A position is audit-related if the job title contains the words audit, accountant, accounting, assurance, cpa or ca(sa) [whitelist], and not the words intern, trainee, audit committee, restructuring, valuation, or tax [blacklist]. If the job title does not contain a word from the

	whitelist and the blacklist, the job description is considered. A position is also audit-related if the job description contains the words audit, accountant, accounting, assurance, cpa or ca(sa) [whitelist], and not the words intern, trainee, audit committee, restructuring, valuation, tax, auditcore, audit support, accounting software, IT, accounting processes, financial reporting & accounting, or accounting practice [blacklist]. For some analysts, the job title and/ or job description is either ambiguous or includes both whitelist and blacklist words. Thus, all audit firm employees are manually checked and based on that some analysts are manually coded as being former auditors.
Auditor 4 years or more	Indicator variable that is equal to one if the analyst worked 4 years or more in an audit-related position at an audit firm (and zero otherwise).
Auditor 4 years or more following	Number of unique former auditors, that worked in an audit-related position at an audit firm for 4 years or more, issuing earnings forecasts for firm j at time t.
Auditor following	Number of unique former auditors issuing earnings forecasts for firm j at time t.
Auditor length	The total number of years that the analyst worked in an audit-related position at an audit firm.
Auditor less than 4 years	Indicator variable that is equal to one if the analyst worked less than 4 years in an audit-related position at an audit firm (and zero otherwise).
Auditor less than 4 years following	Number of unique former auditors, that worked in an audit-related position at an audit firm for less than 4 years, issuing earnings forecasts for firm j at time t.
Auditor connected	Indicator variable that is equal to one if the analyst worked in an audit-related position at the audit firm that is currently auditing the covered firm (and zero otherwise).
Auditor connected following	Number of unique connected auditors issuing earnings forecasts for firm j at time t.
Auditor not connected	Indicator variable that is equal to one if the analyst did not work in an audit-related position at the audit firm that is currently auditing the covered firm (and zero otherwise).
Auditor not connected following	Number of unique not connected auditors issuing earnings forecasts for firm j at time t.
BHAR(-1,180)	Buy-and-hold abnormal return calculated using the Fama-French 3-factor model plus momentum with an estimation window of 180 trading days, a gap of 10 trading days between the end of the estimation window and the stock recommendation announcement date, and an event window beginning one trading day before and ending 180 trading days after the stock recommendation announcement date.
Book-to-market	Stockholders' equity divided by the current market value of equity, scaled by total assets and lagged by one year.
CFA	Indicator variable that is equal to one if the analyst has obtained a chartered financial analyst certification (and zero otherwise).
Corporate accountant	Indicator variable that is equal to one if the analyst worked in an accounting-related position at a non-audit firm (and zero otherwise). A position is accounting-related if the job title contains the words audit, accountant, or accounting [whitelist], and not the words intern, trainee, committee, board, tax, equity research, portfolio, fund, investment, finance, analyst, restructuring, valuation, mortgage, trust, transaction, technology, investigations, and various [blacklist]. Further, positions at universities, colleges, foundations or the icaew, or that are less than 12 months are not considered accounting-related. Further, analysts are not identified as non-audit firm accountants if they worked in an accounting-related position at the following investment banks. Deutsche Bank, Suntrust Bank, TCF Bank, ANZ Grindlays bank, Bank one, Bank of novia scotia, The bank of

	Tokyo-mitsubishi ufj, Keybank, Bancshares, Nationsbanc Montgomery securities, JP Morgan Chase, Brown Brothers Harriman, Lehman Brothers, Goldman Sachs, Morgan Stanley, Merrill Lynch, Wells Fargo, PaineWebber, CitiGroup, AG Edwards, Oppenheimer.
Corporate accountant 4 years or more	Indicator variable that is equal to one if the analyst worked 4 years or more in an accounting-related position at a non-audit firm (and zero otherwise).
Corporate accountant less than 4 years	Indicator variable that is equal to one if the analyst worked less than 4 years in an accounting-related position at a non-audit firm (and zero otherwise).
Corporate accountant following	Number of unique corporate accountants issuing earnings forecasts for firm j at time t.
CPA	Indicator variable that is equal to one if the analyst obtained a certified public accountant (CPA) or chartered accountant (CA) certification (and zero otherwise). Speficifally, we search whether the LinkedIn profile mentions the following: - Certified public accountant/ CPA/ certified practicing accountant - Chartered accountant/ CA/ ca(sa)/ chartered professional accountant/ ACA/ ACCA/ FCA/ FCCA - Certificate in accounting - Qualified accountant - Professional accountant - Public accountant
CPA following	Number of unique analysts who obtained a CPA certification issuing earnings forecasts for firm j at time t.
Firm size	Natural log of total assets, lagged by one year.
Forecast boldness	The absolute deviation of analyst i''s EPS forecast for firm j from the average of those EPS forecasts issued by all other analysts covering firm j.
Intangibles	Intangible assets, scaled by total assets and lagged by one year.
Leverage	Sum of long-term debt and debt in current liabilities, scaled by total assets and lagged by one year.
LIT	Indicator variable that is equal to one if the firm has at least one litigation in the fiscal year (and zero otherwise).
MBA	Indicator variable that is equal to one if the analyst obtained an MBA degree (and zero otherwise).
Non-auditor	Indicator variable that is equal to one if the analyst worked at an audit firm but not in a audit-related position (and zero otherwise).
Other analysts following	The difference between *Analyst following*, *Auditor following*, *Corporate accountant following*, *Accounting education following*, *and CPA following*.
Past return	CRSP value-weighted index-adjusted buy-and-hold abnormal return over the fiscal year in which the earnings forecast was made, lagged by one year.
PMAFEP	Proportional mean price-scaled absolute forecast error. Similar to PMAFE except that the absolute forecast error is scaled by the latest available monthly stock price from Compustat. Negative values indicate better than average performance and positive values worse than average performance.
R&D	Research and development expenses, scaled by total assets and lagged by one year.

Recommendation change	Up-/ downgrade indicator. It is based on *Recommendation level* so that an upgrade translates into a positive change. Specifically, it is the difference between the current and prior *Recommendation level*.
Recommendation extremism	Indicator variable that is equal to one for Sell or Strong Buy recommendations (and zero otherwise).
Recommendation level	The reversed I/B/E/S coding ('IRECCD'), i.e., 5 (Strong Buy), 4 (Buy), 3 (Hold), 2 (Underperform), and 1 (Sell).
Recommendation optimism	Categorical variable from -2 (Sell) to +2 (Strong Buy).
RES	Indicator variable that is equal to one if the firm has at least one restatement in the fiscal year (and zero otherwise).
Return on assets	Income before extraordinary items, scaled by total assets and lagged by one year.
Tone	The difference between positive and negative words said during an earnings conference call scaled by the total number of words said during the same call.
Total words	The total number of words an analyst said during an earnings conference call.

Appendix B: Screening process for selecting the correct LinkedIn profile

To select the correct LinkedIn profile for an I/B/E/S analyst, we follow the six screening steps below:

1) Drop all LinkedIn profiles where the analyst name similarity score (I/B/E/S vs. LinkedIn) is below 60%, the company name similarity score (I/B/E/S vs. LinkedIn) is below 60%, and the employment date range does not match even with a 1-year grace period (earliest I/B/E/S forecast announcement date vs. LinkedIn employment range).
2) Manually check LinkedIn profiles with an analyst name similarity score between 60% and 90%. Drop those where the name is wrong. Keep those where the last or first name is abbreviated, or where the last name is different due to marriage.
3) Create a similarity score that is the mean of the analyst name similarity score, company name similarity score, and an exact (without 1-year grace period) employment date range dummy, which is equal to one if the earliest I/B/E/S forecast announcement date lies within the start and end date of the job experience at the I/B/E/S company in the LinkedIn profile (and zero otherwise).
4) If there is more than one job experience in a LinkedIn profile that fits the I/B/E/S search criteria, keep the last job experience after sorting by similarity score, analyst name similarity score, company name similarity score, and exact employment date range dummy in ascending order.
5) If a LinkedIn profile is matched to more than one I/B/E/S analyst, keep the last analyst after sorting by similarity score, analyst name similarity score, company name similarity score, and exact employment date range dummy in ascending order.
6) If there is more than one LinkedIn profile for an I/B/E/S analyst, keep the last profile after sorting by similarity score, analyst name similarity score, company name similarity score, and exact employment date range dummy in ascending order.

Now, there is a unique link between an I/B/E/S analyst and a LinkedIn profile.

Appendix C: List of accounting words

ACCOUNT	CASH	EXPENDITURE	MINORITY	REPORTABLE
ACCOUNTANT	CASHFLOW	EXPENDITURES	MULTIPLES	REPORTED
ACCOUNTANTS	CASHFLOW	EXPENSE	NET	REPORTING
ACCOUNTED	CASHFLOWS	EXPENSED	NETTING	REPORTS
ACCOUNTING	CASHFLOWS	EXPENSES	NOMINAL	RESERVES
ACCOUNTINGS	CHARGED	EXTRAORDINARY	NONACCRUAL	RESTATE
ACCOUNTS	CHARGES	FAS	NONACCRUALS	RESTATE
ACCRETION	COGS	FILED	NONAMORTIZATION	RESTATED
ACCRUAL	CONCERN	FILING	NONCASH	RESTATEMENT
ACCRUALS	CONDENSED	FILINGS	NONCONTROLLING	RESTATEMENTS
ACCRUE	CONSOLIDATE	FINANCIALS	NONFINANCIAL	RESTATES
ACCRUED	CONSOLIDATED	FISCAL	NONMARKETABLE	RETIREMENT
ACCRUES	CONSOLIDATING	FLOW	NONPENSION	RETIREMENTS
ACCRUING	CONTINGENCY	FLOWS	NONRECURRING	REVENUE
ACCUMULATED	CONTINGENT	FOOTNOTES	NONTAXABLE	REVENUES
ACTUARIAL	CONTRIBUTION	FORECASTING	OBLIGATIONS	SEC
ALLOWANCE	CONTRIBUTIONS	FORMA	OFFSETTING	SHEET
ALLOWANCES	CONTROLLER	FORWARDLOOKING	OUTFLOW	SHEETS
AMORTIZATION	COST	GAIN	OUTFLOWS	STANDARDS
AMORTIZATIONS	COSTS	GAINS	OUTSTANDING	STATEMENT
AMORTIZE	CUMULATIVE	GOODWILL	OVERESTIMATE	STATEMENTS
AMORTIZED	DEBIT	GOVERNANCE	PAYABLE	SURPLUS
AMORTIZES	DEDUCTED	GROSS	PAYABLES	TANGIBLE
ANALYST	DEDUCTIBLE	GUIDANCE	PENSION	TAX
ANALYSTS	DEDUCTION	IMPAIR	PENSIONS	TAXABILITY
ANNOUNCEMENT	DEDUCTIONS	IMPAIRED	PERIODIC	TAXABLE
ANNOUNCEMENTS	DEFER	IMPAIRMENT	POOLING	TAXATION
ASSET	DEFERRAL	IMPAIRMENTS	POSTRETIREMENT	TAXED
ASSETS	DEFERRALS	INCOME	PREPAID	TAXES
ASSURANCE	DEFERRED	INCOMES	PRETAX	TAXING
AUDIT	DELINQUENCY	INCUR	PROFIT	TRANSACTIONS
AUDITED	DELINQUENT	INCURRED	PROFITABILITY	TREASURY
AUDITING	DEPLETION	INDEMNIFIABLE	PROFITABLE	UNACCRUED
AUDITOR	DEPOSIT	INDEMNIFICATIONS	PROFITS	UNAMORTIZED
AUDITORS	DEPRECIATE	INDEMNIFIES	PROFORMA	UNAUDITED
AUDITS	DEPRECIATED	INDEMNITEES	PROVISION	UNCERTAINTIES
BALANCE	DEPRECIATES	INDEMNITOR	PROVISIONS	UNCERTAINTY
BALANCES	DEPRECIATION	INFLOW	QUALIFIED	UNCOLLECTIBLE
BANKRUPTCIES	DISCLOSED	INFLOWS	QUARTERLY	UNCOLLECTIBLES
BOOK	DISCLOSURE	INTANGIBLE	RATIO	UNCONSOLIDATED
BOOKKEEPING	DISCLOSURES	INTANGIBLES	RATIOS	UNDEPRECIATED
BOOKS	DISCOUNT	LEASES	RECEIPTS	UNDERESTIMATED
CAPITALIZATIONS	DISCOUNTED	LIABILITIES	RECEIVABLE	UNDISCOUNTED
CARRYBACK	DISCRETION	LIABILITY	RECEIVABLES	UNEARNED
CARRYBACKS	DISCRETIONARY	LOSS	RECLASSIFICATIONS	UNMARKETABLE
CARRYFORWARD	DOUBTFUL	LOSSES	RECOGNITION	UNREALIZED
CARRYFORWARDS	EARNING	LUMP	RECOGNIZE	UNRELEASED
CARRYFOWARD	EARNINGS	MARGIN	RECONCILIATION	VALUATION
CARRYFOWARDS	ESTIMATE	MARGINS	RECOVERABILITY	VALUATIONS
CARRYING	ESTIMATED	MARKETABLE	RECOVERIES	VALUE
CARRYOVER	ESTIMATES	MATERIAL	RECURRING	VIE
CARRYOVERS	EXCISE	MATERIALLY	RELEASEES	WITHHOLDINGS

Figure 1: Analysts' accounting background and its components

This figure presents how the accounting background indicator variable can be broken down into its components.

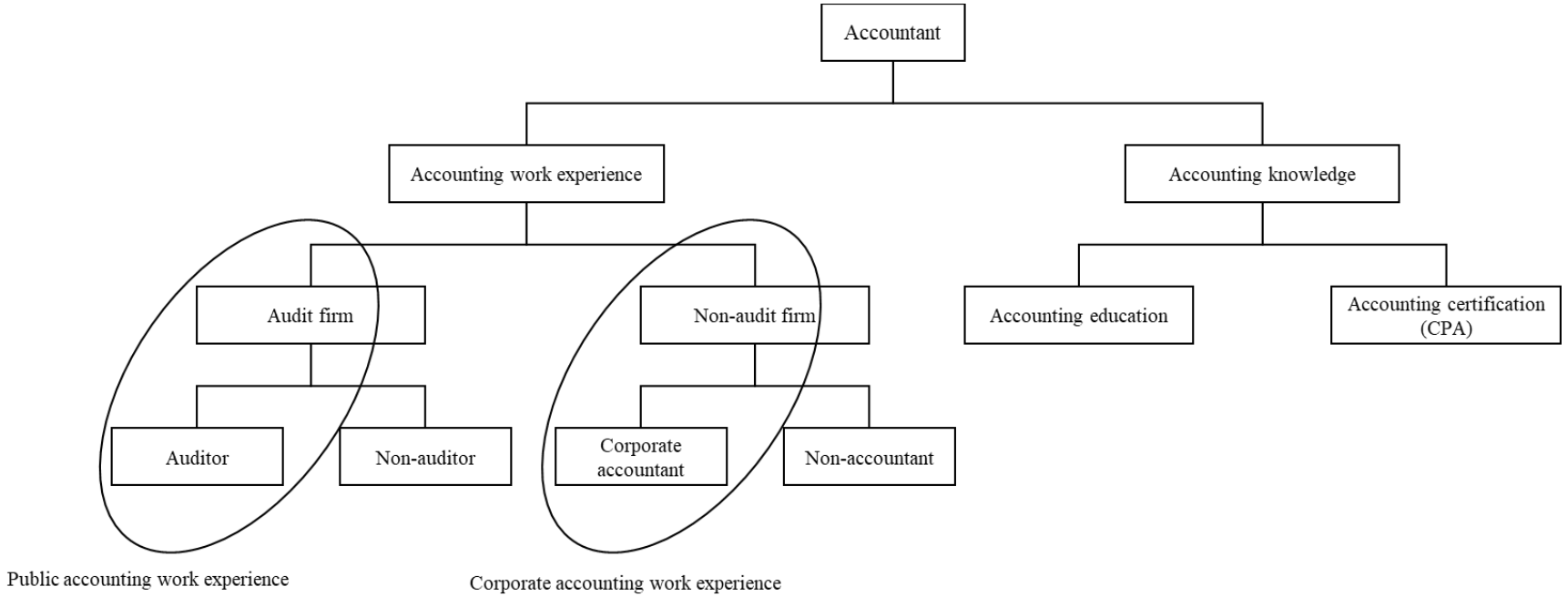

Figure 2: Share of accountants and former auditors over time

This figure presents the share of accountants on the primary axis and the share of former auditors on the secondary axis for the sample period 1997-2019. Analysts' employment histories are collected from LinkedIn.

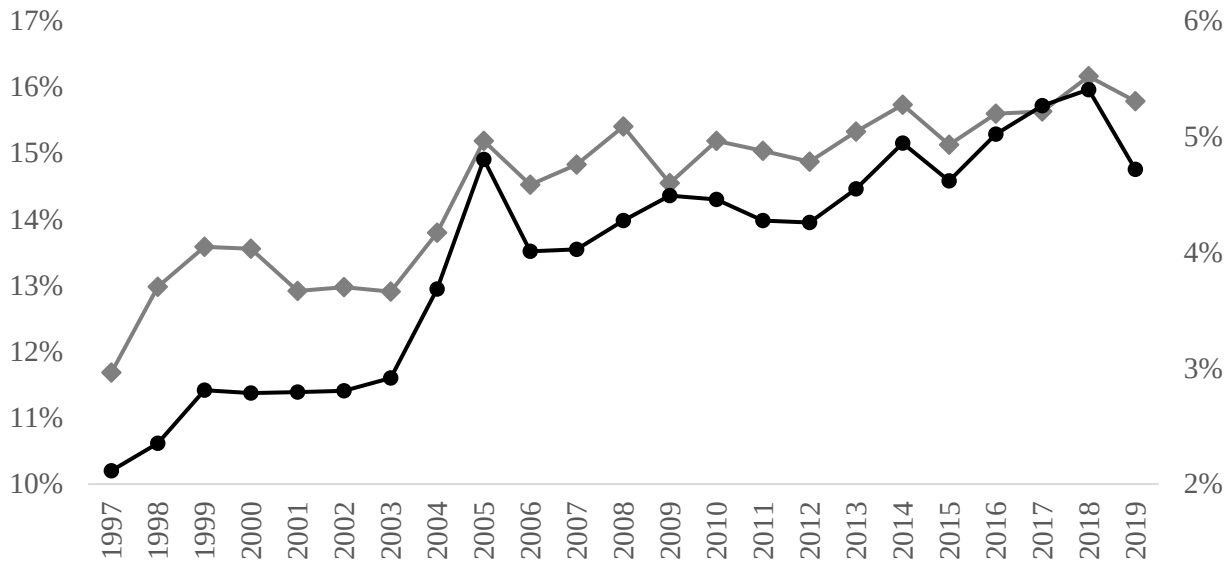

Table 1: Summary statistics

This table provides summary statistics for analysts and firms. Panel A presents summary statistics for analysts and earnings forecasts per announcement year. Panel B presents summary statistics for analyst- and firm-specific controls as well as for the dependent variables used in our analyses. It further presents summary statistics for the auditor-specific variable *Auditor length*, i.e., the number of years an analyst worked in an audit-related position at an audit firm. Panel C presents results from OLS regressions of two of our main variables of interest, *Accountant* and *Auditor*, on firm-specific controls. *Accountant* is an indicator variable equal to one if the analyst has work experience in an audit-related position at an audit firm and/ or work experience in an accounting-related position at a non-audit firm and/ or obtained education in accounting and/ or obtained a CPA certification (and zero otherwise). *Auditor* is an indicator variable equal to one if the analyst has work experience in an audit-related position at an audit firm (and zero otherwise). p-values are in parentheses with standard errors double-clustered at the analyst- and year-levels. All continuous variables, except for Analyst Following, are winsorized at the 1st and 99th percentiles. Variable definitions are provided in Appendix A. Forecast and analyst data are obtained from I/B/E/S and span the period from 1997 to 2019. Analysts' employment histories are collected from LinkedIn.

Panel A: Summary statistics for analysts and earnings forecasts

Year	# unique firms	# unique analysts	% accountants	% former auditors	# forecasts	% forecasts by accountants	% forecasts by former auditors
1997	1,659	993	11.68%	2.11%	6,645	10.99%	1.60%
1998	1,905	1,148	12.98%	2.35%	7,934	11.75%	1.60%
1999	1,889	1,281	13.58%	2.81%	8,362	12.22%	2.14%
2000	1,725	1,328	13.55%	2.79%	7,909	13.53%	2.11%
2001	1,795	1,432	12.92%	2.79%	8,809	12.76%	2.36%
2002	2,054	1,426	12.97%	2.81%	10,263	12.26%	2.29%
2003	2,179	1,441	12.91%	2.91%	11,415	12.19%	2.29%
2004	2,344	1,493	13.80%	3.68%	12,787	12.93%	2.78%
2005	2,471	1,541	15.18%	4.80%	13,131	13.97%	3.37%
2006	2,607	1,522	14.52%	4.01%	13,873	14.19%	3.36%
2007	2,648	1,565	14.82%	4.03%	14,491	13.96%	3.69%
2008	2,692	1,591	15.40%	4.27%	14,103	15.13%	4.42%
2009	2,684	1,581	14.55%	4.49%	14,866	14.56%	3.98%
2010	2,703	1,818	15.18%	4.46%	17,029	15.10%	4.26%
2011	2,733	1,942	15.04%	4.27%	18,243	15.28%	4.13%
2012	2,813	1,903	14.87%	4.26%	18,282	14.75%	3.91%
2013	2,756	1,847	15.32%	4.55%	18,305	15.42%	4.28%
2014	2,778	1,882	15.73%	4.94%	19,084	15.33%	4.38%
2015	2,813	1,884	15.13%	4.62%	19,118	14.93%	4.11%
2016	2,834	1,853	15.60%	5.02%	19,517	14.86%	4.37%
2017	2,773	1,785	15.63%	5.27%	18,485	14.89%	4.69%
2018	2,713	1,739	16.16%	5.41%	18,250	14.81%	4.55%
2019	2,737	1,717	15.78%	4.72%	21,419	15.59%	4.84%
Sum / Avg.	*7,732*	*6,551*	*14.73%*	*4.09%*	*332,320*	*14.34%*	*3.76%*

Panel B: Summary statistics (at the forecast level) for analyst and firm characteristics

	All analysts (N = 332,320)		**Accountants** (N = 47,661)		**Former auditors** (N = 12,480)	
Variables	Mean	P50	Mean	P50	Mean	P50
Dependent variables						
PMAFEP	0.25	-0.19	0.24	-0.18	0.16	-0.19
BHAR(-1,180)	-0.11	-0.05	-0.09	-0.04	-0.10	-0.05
RES	0.04	0.00	0.04	0.00	0.03	0.00
LIT	0.02	0.00	0.02	0.00	0.02	0.00
Forecast boldness	0.24	0.04	0.21	0.04	0.20	0.04
Recommendation optimism	0.65	1.00	0.63	0.00	0.57	0.00
Recommendation extremism	0.22	0.00	0.22	0.00	0.20	0.00
Analyst characteristics						
Corporate accountant	0.00	0.00	0.03	0.00	0.00	0.00
Accounting education	0.14	0.00	0.90	1.00	0.84	1.00
CPA	0.03	0.00	0.20	0.00	0.45	0.00
GExp	11.77	11.00	11.81	11.00	11.66	10.00
FExp	2.77	2.00	2.78	2.00	2.82	2.00
Forecast distance	123.93	99.00	123.90	100.00	120.17	99.00
Portfolio size	13.72	13.00	13.61	13.00	13.30	13.00
Sic2	3.35	3.00	3.33	3.00	3.53	3.00
CFA	0.23	0.00	0.26	0.00	0.27	0.00
MBA	0.53	1.00	0.62	1.00	0.49	0.00
Auditor length					4.07	4.00
Firm characteristics						
Firm size	8.02	8.00	8.19	8.13	8.40	8.34
Book-to-market	0.49	0.39	0.50	0.41	0.50	0.40
Analyst following	9.21	8.00	9.15	8.00	9.41	9.00
Past return	0.14	0.02	0.12	0.02	0.10	0.01
Leverage	0.24	0.21	0.25	0.22	0.27	0.23
Intangibles	0.18	0.10	0.19	0.10	0.20	0.12
R&D	0.04	0.00	0.02	0.00	0.02	0.00
Return on assets	0.02	0.04	0.03	0.04	0.04	0.04

Panel C: Determinants analyses

	Accountant	**Auditor**
	(1)	(2)
Firm size	0.0055*	0.0034*
	(0.0950)	(0.0562)
Book-to-market	-0.0067	-0.0023
	(0.4114)	(0.5780)
Analyst following	-0.0015	-0.0004
	(0.1024)	(0.3356)
Past return	-0.0053**	-0.0022*
	(0.0192)	(0.0962)
Leverage	-0.0057	0.0074
	(0.8056)	(0.5612)
Intangibles	0.0239	0.0166
	(0.2976)	(0.2480)
R&D	-0.1708***	-0.0448**
	(0.0001)	(0.0155)
Return on assets	0.0115	0.0019
	(0.5907)	(0.8465)
FEs	No	No
Observations	332,320	332,320
Adj. R-squared	0.0043	0.0027

Table 2: Forecast accuracy

This table presents results from OLS regressions of forecast accuracy (*PMAFEP*) on an array of analyst background variables associated with accounting, along with analyst and firm-characteristics. The dependent variable in all models across all panels is *PMAFEP*, which is defined as the difference between the price-scaled absolute forecast error of analyst i for firm j and the mean price-scaled absolute forecast error at time t scaled by the mean price-scaled absolute forecast error for firm j at time t. Panel A presents results for *PMAFEP* on *Accountant*, an indicator variable equal to one if the analyst has work experience in an audit-related position at an audit firm or work experience in an accounting-related position at a non-audit firm and/ or obtained education in accounting and/ or obtained a CPA certification (and zero otherwise). In Panel B, we decompose *Accountant* into work experience and knowledge. *Accounting work experience* is an indicator variable equal to one if the analyst has work experience in an audit-related position at an audit firm or work experience in an accounting-related position at a non-audit firm. *Accounting knowledge* is an indicator variable equal to one if the analyst obtained education in accounting and/ or a CPA certification (and zero otherwise). In Panel C, we further decompose work experience into audit-related at an audit firm and accounting-related at a non-audit firm, and knowledge into accounting education and CPA certification. *Auditor* is an indicator variable equal to one if the analyst has work experience in an audit-related position at an audit firm (and zero otherwise). *Corporate accountant* is an indicator variable equal to one if the analyst has work experience in an accounting-related position at a non-audit firm (and zero otherwise). *Accounting education* is an indicator variable equal to one if the analyst obtained a bachelor's, master's and/ or MBA degree in accounting (and zero otherwise). *CPA* is an indicator variable equal to one if the analyst obtained a CPA certification (and zero otherwise). See Appendix A for variable definitions. Panel C further includes a sixth column showing results from OLS regressions of *PMAFEP* on *Non-auditor*, an indicator variable equal to one if the analyst has work experience in a non-audit related position at an audit firm (and zero otherwise), along with analyst and firm characteristics as well as fixed effects. Across all Panels, the regressions in columns (1), (2), (3), and (5) include fixed effects as shown at the bottom of the table. Note that firm controls do not drop with Firm*Year FEs because we use the calendar-year of the forecast announcement date instead of the firm's fiscal year as our Year FE. The regression in column (4) is estimated with de-meaned analyst-level control variables (as indicted by D_ in front of the original variable name), as in Bradley et al. (2017). Forecast and analyst data are obtained from I/B/E/S and span the period from 1997 to 2019. Stock price data are from CRSP and firm data from Compustat. Analysts' employment histories are collected from LinkedIn. p-values are in parentheses with standard errors double-clustered at the analyst- and year-levels, except for column (5), which shows results from regressions using standard errors that are double-clustered at the analyst- and firm-levels. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

Panel A: Accounting analysts

	PMAFEP				
	(1)	(2)	(3)	(4)	(5)
Accountant	**-0.0076**	**-0.0201**	**-0.0239**	**-0.0126**	**-0.0201**
	(0.6396)	**(0.2243)**	**(0.1548)**	**(0.4387)**	**(0.1872)**
GExp	-0.0118***	-0.0077***	-0.0075***		-0.0077***
	(0.0000)	(0.0000)	(0.0000)		(0.0000)
FExp	-0.0049***	-0.0022	-0.0023		-0.0022
	(0.0018)	(0.1533)	(0.1274)		(0.1220)
Forecast distance	0.0070***	0.0071***	0.0082***		0.0071***
	(0.0000)	(0.0000)	(0.0000)		(0.0000)
Portfolio size	-0.0013	-0.0005	-0.0009		-0.0005
	(0.3105)	(0.6659)	(0.4957)		(0.6268)
Sic2	0.0116**	0.0051	0.0062		0.0051

	(0.0209)	(0.2230)	(0.1751)		(0.1779)
CFA	0.0071	-0.0202	-0.0157	0.0007	-0.0202
	(0.6700)	(0.2139)	(0.3241)	(0.9633)	(0.1952)
MBA	-0.0042	-0.0084	-0.0152	-0.0082	-0.0084
	(0.7516)	(0.4833)	(0.2130)	(0.5522)	(0.4926)
Firm size	0.0070	-0.0005	-0.5044***	-0.0167***	-0.0005
	(0.1744)	(0.9511)	(0.0000)	(0.0000)	(0.9475)
Book-to-market	0.0050	-0.0003	-0.1777*	0.0289**	-0.0003
	(0.6736)	(0.9782)	(0.0687)	(0.0126)	(0.9827)
Analyst following	-0.0204***	-0.0257***	0.0175	-0.0226***	-0.0257***
	(0.0000)	(0.0000)	(0.5762)	(0.0000)	(0.0000)
Past return	0.0188**	0.0015	0.0380*	0.0007	0.0015
	(0.0105)	(0.7634)	(0.0627)	(0.8993)	(0.7557)
Leverage		-0.0035	-0.4766**		-0.0035
		(0.9195)	(0.0481)		(0.9089)
Intangibles		-0.0133	0.4871		-0.0133
		(0.7239)	(0.1134)		(0.7015)
R&D		0.1457	0.0083		0.1457*
		(0.1382)	(0.9820)		(0.0935)
Return on assets		0.0724	0.2005		0.0724*
		(0.1262)	(0.5300)		(0.0795)
D_GExp				-0.0130***	
				(0.0000)	
D_FExp				-0.0058***	
				(0.0039)	
D_Forecast distance				0.0083***	
				(0.0000)	
D_Portfolio size				-0.0021	
				(0.1298)	
D_Sic2				0.0206***	
				(0.0006)	
De-meaned variables	No	No	No	Yes	No
Industry*Year FE	Yes	No	No	No	No
Firm*Year FE	No	No	Yes	No	No
Broker FE	No	Yes	Yes	No	Yes
Firm FE	No	Yes	No	No	Yes
Year FE	No	Yes	No	No	Yes
Observations	295,777	295,547	290,252	295,788	295,547
Adj. R-squared	0.1012	0.1147	0.0824	0.1094	0.1146

Panel B: Accounting work experience and accounting knowledge

	PMAFEP				
	(1)	(2)	(3)	(4)	(5)
Accounting work experience	**-0.0675****	**-0.0593****	**-0.0580****	**-0.0640****	**-0.0593****
	(0.0141)	**(0.0196)**	**(0.0151)**	**(0.0175)**	**(0.0145)**
Accounting knowledge	0.0112	-0.0044	-0.0092	0.0045	-0.0044
	(0.5679)	(0.8174)	(0.6281)	(0.8161)	(0.7991)
Controls as in Panel A	Yes	Yes	Yes	Yes	Yes
De-meaned variables	No	No	No	Yes	No
Industry*Year FE	Yes	No	No	No	No
Firm*Year FE	No	No	Yes	No	No
Broker FE	No	Yes	Yes	No	Yes
Firm FE	No	Yes	No	No	Yes
Year FE	No	Yes	No	No	Yes
Observations	295,777	295,547	290,252	295,788	295,547
Adj. R-squared	0.1013	0.1147	0.0824	0.1094	0.1147

Panel C: Public accounting work experience, corporate accounting work experience, accounting education and CPA

	PMAFEP					
	(1)	(2)	(3)	(4)	(5)	(6)
Auditor	**-0.0841*****	**-0.0713****	**-0.0756*****	**-0.0849*****	**-0.0713*****	
	(0.0054)	**(0.0125)**	**(0.0057)**	**(0.0052)**	**(0.0045)**	
Non-auditor						-0.0342
						(0.1445)
Corporate accountant	-0.0060	0.0015	0.0482	0.0044	0.0015	-0.0026
	(0.9365)	(0.9789)	(0.4472)	(0.9516)	(0.9762)	(0.9637)
Accounting education	0.0077	-0.0104	-0.0166	-0.0002	-0.0104	-0.0087
	(0.6941)	(0.5844)	(0.3798)	(0.9932)	(0.5536)	(0.6541)
CPA	0.0291	0.0228	0.0282	0.0383	0.0228	0.0483
	(0.3937)	(0.5144)	(0.4210)	(0.2570)	(0.4618)	(0.3301)
Controls as in Panel A	Yes	Yes	Yes	Yes	Yes	Yes
De-meaned variables	No	No	No	Yes	No	No
Industry*Year FE	Yes	No	No	No	No	No
Firm*Year FE	No	No	Yes	No	No	No
Broker FE	No	Yes	Yes	No	Yes	Yes
Firm FE	No	Yes	No	No	Yes	Yes
Year FE	No	Yes	No	No	Yes	Yes
Observations	295,777	295,547	290,252	295,788	295,547	283,786
Adj. R-squared	0.1013	0.1147	0.0824	0.1094	0.1147	0.1154

Table 3: Cross-sectional variation in former auditors' forecast accuracy

This table presents results from OLS regressions of *PMAFEP* on *Auditor* split into two separate indicator variables, along with analyst and firm characteristics as well as fixed effects. Panel A presents results for splitting *Auditor* into *Auditor less than 4 years* and *Auditor 4 years or more*, which are indicator variables equal to one if the analyst worked for less than 4 years or 4 years or more in an audit-related position at an audit firm (and zero otherwise), where 4 years is the median number of years an analyst worked in an audit-related position at an audit firm. Panel B presents results for splitting *Auditor* into *Auditor connected* and *Auditor not connected*, which are indicator variables equal to one if the analyst worked (or did not work) in an audit-related position at the audit firm that is currently auditing the covered firm (and zero otherwise). See Appendix A for variable definitions. p-values are in parentheses with standard errors double-clustered at the analyst- and year-levels. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

Panel A: Auditors' experience split into less than 4 years and 4 years or more

	PMAFEP		
	(1)	(2)	(3)
Auditor less than 4 years	**-0.0650**	**-0.0659**	**-0.0621**
	(0.2257)	**(0.2702)**	**(0.2842)**
Auditor 4 years or more	**-0.0922*** **	**-0.0734*** **	**-0.0809*** **
	(0.0033)	**(0.0062)**	**(0.0032)**
Corporate accountant less than 4 years	0.0813	-0.0034	0.0304
	(0.4304)	(0.9586)	(0.6907)
Corporate accountant 4 years or more	-0.1202	0.0070	0.0668
	(0.1516)	(0.9462)	(0.5596)
Accounting education	0.0080	-0.0103	-0.0164
	(0.6851)	(0.5868)	(0.3852)
CPA	0.0272	0.0221	0.0262
	(0.4299)	(0.5420)	(0.4716)
Controls as in Table 2 columns (1) to (3)	Yes	Yes	Yes
Industry*Year FE	Yes	No	No
Firm*Year FE	No	No	Yes
Broker FE	No	Yes	Yes
Firm FE	No	Yes	No
Year FE	No	Yes	No
Observations	295,777	295,547	290,252
Adj. R-squared	0.1013	0.1147	0.0824

Panel B: Auditors split into connected and not connected ones

	PMAFEP		
	(1)	(2)	(3)
Auditor connected	**-0.0993*** **	**-0.0992*** **	**-0.1158*** **
	(0.0050)	**(0.0050)**	**(0.0015)**
Auditor not connected	**-0.0592** **	**-0.0591** **	**-0.0609** **
	(0.0404)	**(0.0411)**	**(0.0335)**
Corporate accountant	0.0048	0.0047	0.0516
	(0.9304)	(0.9326)	(0.4140)
Accounting education	-0.0134	-0.0134	-0.0186
	(0.4828)	(0.4819)	(0.3223)
CPA	0.0238	0.0237	0.0270
	(0.4957)	(0.4970)	(0.4508)
Controls as in Table 2 columns (1) to (3)	Yes	Yes	Yes
Industry*Year FE	Yes	No	No
Firm*Year FE	No	No	Yes
Broker FE	No	Yes	Yes
Firm FE	No	Yes	No
Year FE	No	Yes	No
Observations	290,307	290,307	285,167
Adj. R-squared	0.1153	0.1153	0.0834

Table 4: Accountants' recommendation profitability

This table presents results from OLS regressions of buy-and-hold abnormal returns on *Accountant*, or *Accounting work experience* and *Accounting knowledge*, or, when further decomposed, on *Auditor*, *Corporate accountant*, *Accounting education* and *CPA*. *Accountant* is an indicator variable equal to one if the analyst has work experience in an audit-related position at an audit firm or work experience in an accounting-related position at a non-audit firm and/ or obtained education in accounting and/ or obtained a CPA certification (and zero otherwise). *Accounting work experience* is an indicator variable equal to one if the analyst has work experience in an audit-related position at an audit firm or work experience in an accounting-related position at a non-audit firm. *Accounting knowledge* is an indicator variable equal to one if the analyst obtained education in accounting and/ or a CPA certification (and zero otherwise). *Auditor* is an indicator variable equal to one if the analyst has work experience in an audit-related position at an audit firm (and zero otherwise). *Corporate accountant* is an indicator variable equal to one if the analyst has work experience in an accounting-related position at a non-audit firm (and zero otherwise). *Accounting education* is an indicator variable equal to one if the analyst obtained a bachelor's, master's and/ or MBA degree in accounting (and zero otherwise). *CPA* is an indicator variable equal to one if the analyst obtained a CPA certification (and zero otherwise). In column (4), *Auditor* is split into *Auditor less than 4 years* and *Auditor 4 years or more*, which are indicator variables equal to one if the analyst worked for less than 4 years or 4 years or more in an audit-related position at an audit firm (and zero otherwise), where 4 years is the median number of years an analyst worked in an audit-related position at an audit firm. In column (5), *Auditor* is split into *Auditor connected* and *Auditor not connected*, which are indicator variables equal to one if the analyst worked (or did not work) in an audit-related position at the audit firm that is currently auditing the covered firm (and zero otherwise). We calculate buy-and-hold abnormal returns using the Fama-French 3-factor model plus momentum with an estimation window of 180 trading days, a gap of 10 trading days between the end of the estimation window and the stock recommendation announcement date, and an event window beginning one trading day before and ending 180 trading days after the stock recommendation announcement date. See Appendix A for variable definitions. We run regressions separately for buy (Panel A) and sell (Panel B) stock recommendations. Buy recommendations include analysts' buy and strong buy recommendations. Sell recommendations include analysts' hold, underperform, and sell recommendations. All models include fixed effects for firm and recommendation month. p-values are in parentheses with standard errors double-clustered at the analyst- and year-levels. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

Panel A: Buy recommendations

	BHAR(-1,180)				
	(1)	(2)	(3)	(4)	(5)
Accountant	-0.0024				
	(0.7362)				
Accounting work experience		**-0.0146**			
		(0.3393)			
Accounting education		0.0028			
		(0.6865)			
Auditor			**-0.0181**		
			(0.3219)		
Corporate accountant			-0.0096	-0.0098	-0.0097
			(0.7197)	(0.7144)	(0.7195)
Accounting education			0.0033	0.0030	0.0015
			(0.6494)	(0.6743)	(0.8392)
CPA			0.0066	0.0103	0.0049
			(0.6779)	(0.5198)	(0.7514)
Auditor less than 4 years				-0.0452	
				(0.1052)	
Auditor 4 years or more				-0.0080	
				(0.6853)	
Auditor connected					0.0044
					(0.8387)
Auditor not connected					-0.0180
					(0.3456)
Controls as in Table 2 column (3)	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes
Recommendation month FE	Yes	Yes	Yes	Yes	Yes
Observations	123,590	123,590	123,590	123,590	121,706
Adj. R-squared	0.154	0.154	0.154	0.1541	0.1543

Panel B: Sell recommendations

	BHAR(-1,180)				
	(1)	(2)	(3)	(4)	(5)
Accountant	0.0063				
	(0.4064)				
Accounting work experience		**-0.0373*** **			
		(0.0023)			
Accounting education		0.0178**			
		(0.0378)			
Auditor			**-0.0395*** **		
			(0.0070)		
Corporate accountant			-0.0294	-0.0294	-0.0305
			(0.4814)	(0.4805)	(0.4683)
Accounting education			0.0190**	0.0190**	0.0187*
			(0.0462)	(0.0463)	(0.0528)
CPA			0.0031	0.0038	0.0051
			(0.8272)	(0.7875)	(0.7305)
Auditor less than 4 years				-0.0446**	
				(0.0458)	
Auditor 4 years or more				-0.0375**	
				(0.0145)	
Auditor connected					-0.0206
					(0.1568)
Auditor not connected					-0.0461***
					(0.0050)
Controls as in Table 2 column (3)	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes
Recommendation month FE	Yes	Yes	Yes	Yes	Yes
Observations	121,808	121,808	121,808	121,808	119,705
Adj. R-squared	0.1211	0.1213	0.1213	0.1213	0.1215

Table 5: Former auditors' monitoring role

This table presents results from LPM (linear probability model) regressions of the probability of firms committing financial misreporting that leads to earnings restatements or class-action securities lawsuits. We exclude firms that are never subject to a restatement or litigation. The dependent variable in columns (1), (3) and (5) is *RES*, which is an indicator variable equal to one if the firm has at least one restatement in the fiscal year (and zero otherwise). In columns (2), (4) and (6) the dependent variable is *LIT*, which is equal to one if the firm has at least one litigation in the fiscal year, and zero otherwise. The main variables of interest are the number of former auditors following the firm (*Auditor following*), the number of corporate accountants following the firm (*Corporate accountant following*), the number of analysts with university education in accounting following the firm (*Accounting education following*), the number of CPAs following the firm (*CPA following*), and the number of other analysts following the firm (*Other analysts following*). In further regressions, we split *Auditor following* into those that worked in an audit-related position at an audit firm for less than 4 years (*Auditor less than 4 years following*) and for 4 years or more (*Auditor 4 years or more following*), respectively, as well as into connected (*Auditor connected following*) and not connected (*Auditor not connected following*) ones. See Appendix A for variable definitions. p-values are in parentheses with standard errors clustered at the firm-level. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

	RES	**LIT**	**RES**	**LIT**	**RES**	**LIT**
	(1)	(2)	(3)	(4)	(5)	(6)
Auditor following	**-0.0175*** **	**0.0056**				
	(0.0002)	**(0.5414)**				
Auditor less than 4 years following			-0.0232	0.0199		
			(0.2126)	(0.4781)		
Auditor 4 years or more following			-0.0208***	0.0044		
			(0.0008)	(0.6454)		
Auditor connected following					-0.0115	0.0037
					(0.1967)	(0.8402)
Auditor not connected following					-0.0181***	-0.0019
					(0.0002)	(0.8838)
Corporate accountant following	-0.0108	-0.0859**	-0.0114	-0.0841**	-0.0086	-0.0887**
	(0.7779)	(0.0194)	(0.7656)	(0.0224)	(0.8177)	(0.0181)
Accounting education following	0.0013	0.0079**	0.0016	0.0080**	0.0016	0.0079**
	(0.5854)	(0.0402)	(0.5258)	(0.0371)	(0.5042)	(0.0448)
CPA following	0.0181***	0.0020	0.0175***	0.0013	0.0172***	0.0036
	(0.0049)	(0.8546)	(0.0097)	(0.9015)	(0.0083)	(0.7361)
Other analysts following	0.0017	0.0095***	0.0019	0.0097***	0.0020	0.0090**
	(0.4858)	(0.0090)	(0.4448)	(0.0070)	(0.3935)	(0.0122)
Controls as in Table 2 column (3)	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	57,298	38,584	57,298	38,584	57,298	38,584
Adj. R-squared	0.4461	0.2078	0.4461	0.2081	0.4462	0.2077

Table 6: Distributional properties of former auditors' forecasts and recommendations

This table presents results from OLS regressions of *Forecast boldness* (column 1), *Recommendation optimism* (column 2), and *Recommendation extremism* (column 3) on *Auditor*, *Corporate accountant*, *Accounting education* and *CPA*, along with analyst and firm characteristics as well as fixed effects. *Auditor* is an indicator variable equal to one if the analyst has work experience in an audit-related position at an audit firm (and zero otherwise). *Corporate accountant* is an indicator variable equal to one if the analyst has work experience in an accounting-related position at a non-audit firm (and zero otherwise). *Accounting education* is an indicator variable equal to one if the analyst obtained a bachelor's, master's and/ or MBA degree in accounting (and zero otherwise). *CPA* is an indicator variable equal to one if the analyst obtained a CPA certification (and zero otherwise). The dependent variable *Forecast boldness* follows Pope and Wang (2023) and is the absolute deviation of analyst i's EPS forecast for firm j from the average of those issued by all other analysts. The dependent variable *Recommendation optimism* is a categorical variable between -2 ('Sell') to +2 ('Strong Buy'). The dependent variable *Recommendation extremism* is an indicator variable that equals one for 'Sell' or 'Strong Buy' recommendations, and zero otherwise. See Appendix A for variable definitions. p-values are in parentheses with standard errors double-clustered at the analyst- and year-levels. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

	Forecast boldness	**Recommendation optimism**	**Recommendation extremism**
	(1)	(2)	(3)
Auditor	**-0.0107***	**-0.0201**	**-0.0069**
	(0.0837)	**(0.4152)**	**(0.5612)**
Corporate accountant	-0.0112	0.0085	0.0074
	(0.4398)	(0.8255)	(0.7756)
Accounting education	0.0036	0.0167	0.0022
	(0.3655)	(0.1942)	(0.6784)
CPA	0.0013	-0.0492**	-0.0138
	(0.8798)	(0.0279)	(0.1505)
Controls as in Table 2 column (3)	Yes	Yes	Yes
Broker FE	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Observations	294,629	252,112	252,112
Adj. R-squared	0.5998	0.2148	0.3486

Table 7: Accountants' covered firms' earnings conference call transcripts

This table presents results from OLS regressions of *Accounting ratio* and *Tone* on *Accounting work experience* and *Accounting knowledge*, or, when further decomposed, on *Auditor*, *Corporate accountant*, *Accounting education* and *CPA*. *Accounting work experience* is an indicator variable equal to one if the analyst has work experience in an audit-related position at an audit firm or work experience in an accounting-related position at a non-audit firm. *Accounting knowledge* is an indicator variable equal to one if the analyst obtained education in accounting and/ or a CPA certification (and zero otherwise). *Auditor* is an indicator variable equal to one if the analyst has work experience in an audit-related position at an audit firm (and zero otherwise). *Corporate accountant* is an indicator variable equal to one if the analyst has work experience in an accounting-related position at a non-audit firm (and zero otherwise). *Accounting education* is an indicator variable equal to one if the analyst obtained a bachelor's, master's and/ or MBA degree in accounting (and zero otherwise). *CPA* is an indicator variable equal to one if the analyst obtained a CPA certification (and zero otherwise). A poisson pseudo-likelihood regression is used to additionally regress *Total words* on those background variables. *Total words* is the total number of words an analyst said during the conference call. *Accounting ratio* is the total number of accounting words scaled by the total number of words and *Tone* is the difference between positive and negative words scaled by the total number of words. See Appendix A for variable definitions. p-values are in parentheses with standard errors clustered at the firm-level. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

	Total words		**Accounting ratio**		**Tone**	
	(1)	(2)	(3)	(4)	(5)	(6)
Accounting work experience	**0.0495*** **		**0.0009*** **		**-0.0004** **	
	(0.0002)		**(0.0006)**		**(0.0402)**	
Accounting knowledge	0.0061		-0.0007***		0.0002**	
	(0.3638)		(0.0000)		(0.0444)	
Auditor		**0.0416*** **		**0.0013*** **		**-0.0006*** **
		(0.0055)		**(0.0000)**		**(0.0063)**
Corporate accountant		-0.1665***		-0.0032***		0.0018***
		(0.0000)		(0.0000)		(0.0047)
Accounting education		-0.0039		-0.0009***		0.0003***
		(0.5684)		(0.0000)		(0.0077)
CPA		0.0725***		0.0002		-0.0001
		(0.0000)		(0.5006)		(0.5939)
Transcript FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	848,649	848,649	848,639	848,639	848,639	848,639
Adj. R-squared	0.2880	0.2880	0.0660	0.0661	0.0439	0.0439

Supplemental Appendix: Additional Tests

Variable definitions

Variable	Description
PMAFEP 2-year (3-year) ahead	Similar to PMAFEP except that the absolute forecast error is based on the 2-year (3-year) ahead actual earnings and the 2-year (3-year) ahead earnings forecast.

Summary statistics

	All analysts (N = 332,320)		Accountants (N = 47,661)		Former auditors (N = 12,480)	
Variables	Mean	P50	Mean	P50	Mean	P50
Dependent variables						
Forecast distance	123.93	99.00	123.90	100.00	120.17	99.00
Portfolio size	13.72	13.00	13.61	13.00	13.30	13.00
PMAFEP 2-year ahead	0.09	-0.04	0.08	-0.04	0.05	-0.06
PMAFEP 3-year ahead	0.10	-0.02	0.08	-0.03	0.06	-0.04

Table A1: Summary statistics for analysts found vs. not found on LinkedIn

This table provides summary statistics for analysts for which a LinkedIn account could or could not be found.

	Non-LinkedIn analysts			LinkedIn analysts		
Variables	N	Mean	SD	N	Mean	SD
Firm size	336,187	7.88	1.98	332,320	8.02	1.90
Book-to-market	336,187	0.49	0.39	332,320	0.49	0.40
Past return	336,187	0.16	0.68	332,320	0.14	0.62
Leverage	336,187	0.24	0.20	332,320	0.24	0.21
Intangibles	336,187	0.15	0.19	332,320	0.18	0.20
R&D	336,187	0.04	0.08	332,320	0.04	0.07
Return on assets	336,187	0.02	0.14	332,320	0.02	0.13

Table A2: Accountants' forecast distance and portfolio size

This table presents results from OLS regressions of *Forecast distance* (column 1) and *Portfolio size* (column 2) on *Auditor*, *Corporate accountant*, *Accounting education* and *CPA*, along with analyst and firm characteristics as well as fixed effects. *Auditor* is an indicator variable equal to one if the analyst has work experience in an audit-related position at an audit firm (and zero otherwise). *Corporate accountant* is an indicator variable equal to one if the analyst has work experience in an accounting-related position at a non-audit firm (and zero otherwise). *Accounting education* is an indicator variable equal to one if the analyst obtained a bachelor's, master's and/ or MBA degree in accounting (and zero otherwise). *CPA* is an indicator variable equal to one if the analyst obtained a CPA certification (and zero otherwise). See Appendix A for variable definitions. p-values are in parentheses with standard errors double-clustered at the analyst- and year-levels. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

	Forecast distance	**Portfolio size**
	(1)	(2)
Auditor	**-4.4142*** **	**-0.2482**
	(0.0085)	**(0.5445)**
Corporate accountant	1.2565	-0.0412
	(0.7755)	(0.9536)
Accounting education	1.6646**	0.0169
	(0.0151)	(0.9399)
CPA	0.4370	-0.1598
	(0.8441)	(0.7194)
Controls as in Table 2 column (3)	Yes	Yes
Broker FE	Yes	Yes
Firm FE	Yes	Yes
Year FE	Yes	Yes
Observations	295,547	295,547
Adj. R-squared	0.0761	0.5996

Table A3: Accountants' 2-year and 3-year ahead forecast accuracy

This table presents results from OLS regressions of *PMAFEP 2-year ahead* (columns 1 to 3) or *PMAFEP 3-year ahead* (columns 4 to 6) on *Auditor*, *Corporate accountant*, *Accounting education* and *CPA*, along with analyst and firm characteristics as well as fixed effects. *Auditor* is an indicator variable equal to one if the analyst has work experience in an audit-related position at an audit firm (and zero otherwise). *Corporate accountant* is an indicator variable equal to one if the analyst has work experience in an accounting-related position at a non-audit firm (and zero otherwise). *Accounting education* is an indicator variable equal to one if the analyst obtained a bachelor's, master's and/ or MBA degree in accounting (and zero otherwise). *CPA* is an indicator variable equal to one if the analyst obtained a CPA certification (and zero otherwise). See Appendix A for variable definitions. p-values are in parentheses with standard errors double-clustered at the analyst- and year-levels. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

	PMAFEP 2-year ahead			**PMAFEP 3-year ahead**		
	(1)	(2)	(3)	(4)	(5)	(6)
Auditor	**-0.0293****	**-0.0286****	**-0.0276****	**-0.0235**	**-0.0214**	**-0.0187**
	(0.0323)	**(0.0152)**	**(0.0133)**	**(0.1833)**	**(0.1823)**	**(0.3123)**
Corporate accountant	0.0001	0.0181	0.0167	-0.0355	0.0203	0.0394
	(0.9983)	(0.6692)	(0.6138)	(0.2773)	(0.5227)	(0.3274)
Accounting education	0.0020	0.0024	0.0033	-0.0024	0.0033	0.0004
	(0.8331)	(0.7613)	(0.6879)	(0.7998)	(0.6965)	(0.9635)
CPA	0.0080	0.0066	0.0060	0.0047	0.0025	-0.0069
	(0.6159)	(0.6776)	(0.7200)	(0.7582)	(0.8794)	(0.6844)
Controls as in Table 2 columns (1) to (3)	Yes	Yes	Yes	Yes	Yes	Yes
Industry*Year FE	Yes	No	No	Yes	No	No
Firm*Year FE	No	No	Yes	No	No	Yes
Broker FE	No	Yes	Yes	No	Yes	Yes
Firm FE	No	Yes	No	No	Yes	No
Year FE	No	Yes	No	No	Yes	No
Observations	266,388	266,198	262,013	132,621	132,462	128,656
Adj. R-squared	0.0342	0.0339	-0.0475	0.0099	0.0075	-0.1043