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Going big, going small: A perspective on strategies for researching audit quality^{☆, ☆ ☆}

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ABSTRACT

This paper updates how archival audit research has evolved since the summary in Francis (2004) of what we knew then about audit quality. The paper describes an evolution from “going big” and asking basic questions about the audit market, institutions, and audit quality, to “going small” with a focus on smaller units of analysis (offices, partners, and engagement teams) as the key to understanding audit quality. I used to believe that audit firm differences, and differences across offices within firms, were the most important audit-related sources of variation in quality, and that differences in people and audit teams were relatively unimportant. However, the evidence in Cameran, Campa, and Francis (2022) using UK partner data convinced me otherwise. I now believe the behaviors of partner-led engagement teams are just as important (and maybe more important) than audit firms and offices in understanding audit quality. However, to learn more about partner-led teams means going inside the black box of audit firms, which requires proprietary data from audit firms and research access to their professional staff. I conclude with an example of collaborative research with audit firms.

1. Auditing, accounting and audit research

Francis (2004) provided an assessment of what we knew at the time about audit quality from archival research.¹ The current paper updates Francis (2004) by describing the arc of audit quality research in recent years. The phrase “going big, going small” is a metaphor for how we frame audit research. The broad goal in “going big” is to understand fundamental propositions about auditing, institutions, and audit markets. For example, why is auditing demanded, and what are the role of institutions in giving audits their economic value?

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¹ Francis (2004) is based on an invited plenary lecture at the 2004 British Accounting Association’s annual meeting in York, England (April 2004).

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In contrast, “going small” views auditing in more granular ways and in more situation-specific and localized contexts. It also poses counter-factual propositions. For example, why are audits valuable in some settings, but not others? Earlier studies suggested that large international audit firms generally do better audits. However, more recent research shows that this is not universally true and identifies conditions in which audits by larger audit firms may (or may not) be of higher quality relative to the audits of smaller firms.²

The goal of audit research is to understand the institutional, organizational, and individual-level factors that drive high-quality audits. This knowledge is important to the audit firms that produce audits so they can improve their audits, to the people who rely on audited accounting information, and to the regulatory bodies that monitor auditors and oversee the quality of audits.

I begin by distinguishing between accounting and auditing because the two are often thought of as the same thing. Accounting is often called the language of business, and accounting systems provide basic economic information that is used in decision making by managers inside organizations and by outside investors and other stakeholders. In contrast, an audit provides users of accounting information with independent assurance about the credibility of the information. Auditing is of fundamental social importance because it makes possible the kind of trust needed for investors and creditors to willingly invest in and loan money to companies, which is essential for financial market development and economic growth (Francis, Khurana, and Pereira, 2003).³

To be an auditor requires a deep understanding of accounting.⁴ Accounting is a technology, a set of calculative practices, that measures the economic activity of an organization. Accounting numbers are a combination of relatively straightforward factual data such as the cash flows from the purchase and sale of inventory, and more complex forecasts and estimations of items which are called “accruals.” An example of an accrual is a sale made on credit, with the payment to be received at some point in the future. The sale is recognized before cash is collected. Then, at the end of the fiscal year, the accounting system makes an accrual adjustment for the estimated amount of the firm’s balance of credit sales that are unlikely to be collected. Examples of more complex accruals include the estimation of pension expense for a defined benefit pension plan linked to future salaries fair market value of assets for which there is no external market price; assessing if there is a decline in the value of a firm’s assets (asset impairments); the amount of executive compensation arising from the issuance of stock options; estimated future warranty costs related to current-period sales; and the valuation of complex financial instruments such as derivatives.

Accrual-based earnings are a better measure of an organization’s operating performance than operating cash flows, and are more informative to investors (Dechow, 1994). However, accruals also introduce uncertainty that can potentially reduce the quality of accounting earnings. There are no black and white standards for accruals and accrual adjustments. Instead, they are the subjective judgment and estimate of managers who can have personal incentives to use these accrual estimates to “distort” or “manage” earnings numbers. Manager’s might do this to achieve their own self-serving objectives, such as meeting earnings targets for performance bonuses, or managing earnings to meet forecasted earnings targets. For this reason, the careful audit and review of accruals is where the audit can potentially have an important effect on the quality of audited accounting information, by providing a check on the reasonableness of managerial discretion with respect to accruals. Auditors are also now required to report on what are called “key” or “critical” audit matters in their audit report, which are areas of the audit that were especially difficult. Most of these disclosures relate to accrual estimates and adjustments such as revenue recognition, asset impairments (including goodwill), and fair market values (Audit Analytics, 2021).

The magnitude of accruals will vary from firm to firm, depending on the industry and the nature of a firm’s operations. Accruals can be quite small for some organizations, and very large for others. I calculated the distribution of accruals for 6000 US listed firms on the Compustat database for the period 2000 to 2021. For most firms, net accrual adjustments are negative in sign (expenses) and reduce earnings. The median value of accruals is 8.8 percent of revenues. Another way of measuring accruals is the absolute value of their size relative to operating cash flows: the median ratio is 67%, with an inter-quartile range of 35%–147%. Accruals are clearly a large and significant component of earnings.⁵

² Economics provides another good example of the contrast between going big versus small. The neoclassical economic model assumes that decision makers maximize utility and are risk neutral in weighting possible outcomes. This means that the prospect of a one Euro gain is weighted equally with the prospect of a one Euro loss in assessing expected utility. This is a generalizable proposition in neoclassical economic theory. However, it turns out that in many real-world decision settings, homo-economicus (economic people) are risk averse rather than risk neutral, and that they weight the risk of losses more heavily than gains in assessing the expected utility of outcomes. This is the insight from prospect theory, also called loss aversion theory, developed by Daniel Kahneman and Amos Tversky (1979). Prospect theory is a foundational work in what is now called behavioral economics, and Kahneman was awarded the Nobel Prize in economics in 2002.

³ The centrality of good accounting and auditing practices was recognized by the World Bank and International Monetary Fund (IMF) following the Asian financial crisis in the late 1990s. High-quality financial reporting and audits are now understood to be pillars of international financial architecture, and essential to the financial stability of a country, development of its financial markets and economic growth. Through its *Reports on the Observance of Standards and Codes*, and other initiatives, the World Bank has been working closely with developing countries to foster the infrastructure needed to create high-quality accounting and auditing practices (Hegarty, Gielen, and Barros, 2004).

⁴ Accounting practice is traditionally defined as having three subfields, financial, managerial and taxation accounting. My focus is on *financial accounting* which is the primary accounting information system an organization uses to record its economic activity and results in three financial statements: an income statement, an end-of-period balance sheet of assets and liabilities, and a summary of cash flows for the period. Audited financial statements are required for investors such as shareholders and creditors, as well as for other stakeholders and regulatory oversight agencies.

⁵ To illustrate, consider the 2021 global earnings of British-based Shell PLC (in US dollars). Net income was \$20.6 billion, consisting of \$45.1 billion in operating cash flows less net accruals (expenses) of \$24.5 billion. Net accruals are 54 percent of operating cash flows (24.5/45.1).

Lesson 1. Accruals are forecasts and estimates that improve the measurement of an organization's operating performance, but they can be large in magnitude and introduce uncertainty that potentially lowers the quality of earnings. This is where audits can have great value, by providing assurance the accrual components of earnings are reasonable estimations.

2. Financial statement audits and the structure of global audit firms

While an auditor has deep knowledge of accounting practices, including accruals and accrual adjustments, an auditor must also have expertise unique to auditing. Auditing is the methodology of gathering evidence to determine if the accounting system of an organization produces information that complies with appropriate standards. Informal accounting practices are sometimes called generally accepted accounting principles (GAAP), and more specific accounting standards are the formal rules issued by the *Financial Accounting Standards Board* for US companies, and the *International Accounting Standards Board* for most other countries.⁶

The focus of this paper is the audit of an organization's financial statements by an external (independent) audit firm.⁷ Financial statements represent the organization's assertions that its accounting system complies with appropriate standards. An organization is asserting that (1) its recognition of accounting elements (revenues, expenses, assets, liabilities, shareholders' equity) is correct; (2) the recognized accounting elements are valued correctly; and (3) the results are reported and disclosed correctly in financial statements.

There are two primary observable outcomes of the audit: (1) the audited financial statements of the client, including audited earnings, and (2) the auditor's report on the audited financial statements. Most audit reports are standard clean opinions with boiler plate language in which the auditor states the financial statements give a "true and fair" view, which is auditor-speak for compliance with financial reporting standards. Audit standards require auditors to gather sufficient credible evidence to support the audit report, but just how much evidence is enough is not clearly articulated in the standards and is ultimately the subjective assessment of each auditor.

A criticism of the audit report is that it is a simple pass/fail assessment that uses standardized language and conveys very little information. In response to this criticism, audit reports are now required to include a discussion of what are called key or critical audit matters, which provides a discussion on those areas of the audit (and the client's financial statements) that were especially difficult for the auditor to assess. As noted earlier, most of the critical audit matters raised by the auditor relate to the client's accruals and accrual adjustments. Current research provides mixed evidence about the value of the expanded audit report, though [Lennox, Schmidt, and Thompson \(2022\)](#) argue that there is little evidence the reports provide investors with new information.

Audits of larger companies and public interest entities are primarily done by one of the large audit firms with international networks and multi-office practice locations within countries, the so-called Big 4 firms.⁸ Despite having a global brand name, Big 4 firms

⁶ Audits are not something new that regulators recently invented. Audit-like activities have been around since antiquity. The Latin root of audit is *auditus* which means to hear or listen. In the Roman empire, officials were sent out "to hear" about the economic performance of regions in the empire, and to assess the tribute owed to Rome. The modern audit and many of the legacy audit firms of today's audit profession, began in the latter 1800s as did the professional accounting bodies. For example, the American Association of Public Accountants started in 1887 (later renamed American Institute of Certified Public Accountants), the Institute of Chartered Accountants in England and Wales in 1880, and the Royal Dutch Institute of Chartered Accountants (Royal NIVRA) in 1895, which was renamed in 2013 as the Royal Dutch Professional Organization of Accountants (NBA). Audits and audit firms were largely self-regulated by the audit profession, until the current era of direct government regulation and oversight which began in 2002 in the US with creation of the *Public Company Auditing Standards Board* (PCAOB), and 2002 in the Netherlands with the creation of the *Dutch Authority for Financial Markets* (AFM).

⁷ There are also other types of audits such as the audit of taxable income by taxation authorities. In addition, large organizations often create their own internal audit units to assess internal compliance with the firm's procedures, and to assess operational efficiencies. Assurance activities are pervasive throughout the economy, and financial statement audits are simply one, albeit important, type of assurance for organizations and financial markets. [Francis \(2011\)](#) discusses examples of other assurance practices such as organic certification of food production, sustainability of forestry and fishing practices, and compliance with ISO standards. The global market for some of these assurance services is as large as that of financial statement audits.

⁸ Deloitte is used to illustrate the organizational structure of the Big 4 firms. For 2021, Deloitte reported global revenues of \$50.2 billion US dollars coming from offices in over 150 countries, with global employees of 345,374. Revenues came from three sources: audit and assurance services (\$10.5 billion USD), taxation services (\$8.9 billion USD), and \$31.8 billion USD in other services (risk advisory, financial advisory, and other consulting). In academic accounting circles we nostalgically still call the Big 4 firms "accounting" firms, but they are broad-based professional service firms that are focused primarily on consultancy practices. There is a legitimate concern by regulators that these large international firms are focused so much on consulting growth that the development of the audit/assurance practices might be neglected which could discourage professional staff and audit partners, and could potentially diminish the quality of audits. Deloitte global is headquartered in London and is collectively owned by the separate country-specific practices of Deloitte. The London office conducts no audits nor provides other client services. Rather, the headquarter function is to facilitate and monitor the quality of each of the country-specific units in Deloitte. It also has the authority to revoke the use of the Deloitte brand name by a country-specific unit. For example, each of the international Big 4 audit firms announced the withdrawal of their global firm from Russia following the invasion of Ukraine in 2022. The global headquarters of Big 4 firms also calculate the complex global profit-sharing arrangements among equity partners in the firms.

are organized as a separate legal entity in each country where it practices and must comply with the local laws and regulations of that specific country.⁹ This legal structure also insulates the global firm from litigation and thus limits legal exposure to specific countries. While there may be exchanges of partners and other professionals throughout the world, the audit report for a US company must be signed by a qualified US audit partner in the US practice, just as the audit report for a British company must be signed by a qualified British audit partner in the British practice. Consistent with the country-specific nature of each practice unit, the US regulator (*Public Company Accounting Oversight Board*, or PCAOB) requires the separate registration of each country-specific Big 4 practice with clients that are SEC registrants, typically foreign companies that cross-list in the US. Currently the PCAOB has registered Deloitte practices from 59 different countries.

Lesson 2. The large international audit firm networks are complex entities with global, national, and local office dimensions to their operations, which means that these firms can be meaningfully studied at multiple levels of analysis.

3. What is audit quality?

Auditing standards imply that audits are homogenous and of acceptable quality if done in accordance with the standards issued by the PCAOB for US Companies, and the *International Auditing and Assurance Standards Board* for most other companies. Audit standards imply a binary view of quality: an audit failure occurs when there is a failure to correctly apply auditing standards, otherwise audits meet the required standard. This is the way audit firms and regulatory bodies often define audit quality and audit failures, e.g., the PCAOB in the US, the Financial Reporting Council in the UK, and AFM in the Netherlands.¹⁰

In contrast to the binary model of quality, many scholars think of audit quality as a continuum from low to high quality. Differential quality does not necessarily imply audit failures. At the low end of the quality spectrum, some audits are clearly failures. But the continuum perspective recognizes that some audits, while not necessarily failures, are nevertheless of relatively low quality compared to others. Research shows that less than one percent of audits are demonstrable audit failures, as evidenced by regulator investigations and litigation against auditors. While some scholars have analyzed financial reporting (and audit) failures (e.g., [Dechow, Ge, Larson, and Sloan, 2010](#); [Dechow, Sloan, and Sweeney, 1996](#)), academic research has mainly examined the variation in quality for the other 99+ percent of audits that are not failures.

The continuum approach to quality is best illustrated with research on the quality of audited earnings. An extensive literature exists on empirical measures of earnings quality. These measures focus on the discretion a firm has in making its accounting choices. Discretion arises mainly from the accruals and accrual adjustments required by accounting standards. [Nissim \(2022\)](#) provides a comprehensive review of the earnings quality literature. Earnings are of higher quality if they are sustainable from one period to the next (called persistence). The cash flow component of earnings is more persistent than the accrual adjustments in earnings, which reflects the transient nature of many of the accruals in earnings ([Sloan, 1996](#)). For this reason, high-accrual firms will generally have lower quality earnings, all else equal, because the earnings are less persistent. Similarly, firms with large unexpected (abnormal) accruals are more likely to have lower earnings quality. Firms with high abnormal accruals have less persistent earnings, are more likely to have subsequent restatements of earnings, and are more likely to have regulator-detected earnings misstatements ([Dechow et al., 1996](#); [Dechow, Ge, Larson, and Sloan., 2010](#)).

Lesson 3. Audit standards imply a binary model of quality, but the primary audit outcome – audited financial statements – is better understood as reflecting a continuum of quality.

The flexibility management has with respect to accruals means that accruals can be used to “manage” the level of reported earnings. While such earnings are not necessarily misstated, they may be of lower quality, and in the extreme can be misstated. Managers have strong incentives to report earnings that meet benchmark targets such as analysts’ earnings forecasts, or beating last year’s earnings. Failure to meet these benchmarks can result in large stock price declines and can jeopardize a manager’s job security. Accruals can be characterized as “dials” the manager can turn if a higher level of earnings is needed. Earnings that aggressively use discretionary accruals to meet benchmark targets may not necessarily be fraudulent, but such earnings are generally of lower quality, i.e., less

⁹ For legal reasons, in many countries, the audit practice is organized as a separate legal entity, but it is part of the larger Big 4 organization at the country level. In the Netherlands, for example, the Deloitte audit practice is conducted through Deloitte Accountants BV, which is a separate legal entity, but it is 100% owned by Deloitte Holding BV. Deloitte Holding BV’s other subsidiaries are Deloitte Consulting BV, Deloitte Tax & Legal BV, Deloitte Risk Advisory BV, and Deloitte Financial Advisory BV.

¹⁰ There is an important distinction between a *procedural failure* to follow audit standards, and an *outcome failure* in which the audited financial statements are misstated, and the auditor inappropriately issues a clean audit report (i.e., fails to find and report a material misstatement). A procedural failure, by itself, may be a deficiency but it does not necessarily mean that there is an audit failure. An audit report failure is the more critical dimension. Regulatory bodies have not been as clear as they should be in making this distinction. Regulators report statistics about the percentage of audits they desk reviewed that have “procedural” deficiencies and imply that these are audit failures. In some instances, these figures have been as high as 50 percent or more of the audits that were reviewed. These numbers are misleading though because they are not audit failures, and they do not tell us about the severity of the problems or the incidence of actual audit report failures, which are rare.

persistent and more likely to be subsequently restated. In the extreme, of course, aggressive accruals can lead to the outright misstatement of earnings.¹¹

The above discussion underscores the importance of auditing. Given the discretion managers have over the calculation of earnings, independent verification by auditors is critical to the credibility of reported earnings, and will reflect the degree of aggressiveness by the client that the auditor is comfortable with. The empirical evidence is that better auditors push their clients toward less aggressive earnings, with smaller abnormal accruals, and that such clients are less likely to meet benchmark earnings targets, and are less likely to have a subsequent restatement of earnings.

This discussion also implies there is differential audit quality among audit firms, even though all auditors must comply with a common set of auditing standards. The notion that there is differential audit quality should not be controversial. In other professions such as medicine and law, practitioners are perceived to differ in quality, despite having a common certification to practice. Differential quality does not mean that some audits are failures, it just means there is variation in quality. Audit firms have incentives to develop their reputations and expertise. On the demand side, some organizations may prefer an auditor with a reputation for allowing clients to make more aggressive accounting choices, while others prefer an auditor with a reputation for more conservative (less aggressive) accounting choices. Other organizations may simply need the formality of an audit, and any firm will do.¹²

4. A framework for understanding and researching audit quality

The idea of “going small” in audit research recognizes there is not one single measure of audit quality. There is no Holy Grail of audit quality. Instead, audit quality is multifaceted and can be best understood by breaking it down and building on the framework of audit inputs, the audit process, and audit outcomes (Francis, 2011; Knechel et al., 2013). The quality of an audit is potentially affected by each element of the framework.

4.1. Audit inputs

Inputs to the audit process are people and audit testing procedures, including the technology used to support and implement testing procedures. We know very little about the people who do audits, and most audit testing procedures have evolved through “best practices” and have not been scientifically validated for their efficacy or efficiency.

4.2. Audit process

The audit process is the gathering and interpretation of evidence from audit testing procedures by partner-led engagement teams. In audit research, there is an extensive experimental literature that examines auditor judgment and decision making with respect to audit testing procedures (Nelson and Tan, 2005; Trotman, 2002). Typically, this research focuses on decision making by individual auditors rather than audit teams.

Inspection reports by regulators such as the PCAOB in the US, FRC in the UK, and AFM in the Netherlands, focus on what they view as deficiencies in the audit process, which can tell us something about audit quality. As noted earlier, such procedural deficiencies do not necessarily mean there is an audit failure in which the auditor fails to issue the appropriate audit report.

4.3. Audit firms

Audit partners and their engagements teams work in audit firms, and these-partner led teams typically work out of a specific practice office, at least in some countries. Audit firms develop and prescribe testing methodologies; provide technology support to implement testing; create incentives, rewards, and punishments for auditors; and monitor individual and audit team performance through the firm’s internal quality control systems. All of these have the potential to create inter-firm differences in quality. There is also evidence of inter-office differences within firms, which is suggestive that individual offices within an audit firm may have their own distinct subcultures that can also affect audit quality.

4.4. Audit outcomes

As noted, the primary observable outcomes of an audit are (1) the client’s audited financial statements, particularly earnings; and (2) the auditor’s report on the financial statements. Audit firms and regulators have not fully embraced the idea that the quality of an

¹¹ Earnings are also argued to be of higher quality if they give timely recognition to losses and asset impairments, which is called conditional conservatism. As Watts (2003) explains, there is a higher standard for the accounting recognition of unrealized (paper) gains, than for unrealized losses, which leads to the adage: anticipate no gains, but anticipate all losses.

¹² Francis, Pinnuck, and Watanabe (2014) report evidence that even within the Big 4 group of accounting firms, each one of Big 4 firms has its own distinct “style” which results in the earnings of their clients having a similar structure. Moreover, when a company changes auditor, its earnings become more like the new auditor’s client portfolio. Their results suggest that each firm has its own approach to the interpretation of GAAP that it imposes on its clients, and which results in earnings similarity within its portfolio. Their analysis only focuses on earnings similarity and does not examine if there are systematic differences in earnings quality between the portfolios of each Big 4 auditor.

audit can be inferred from the underlying quality of the audited financial statements, especially the judgmental area of accruals. This resistance is puzzling given that the explicit purpose of the audit is to express an opinion on the financial statements. However, Francis (2011) makes an important distinction on the relation between auditing and earnings quality. Earnings quality is not a direct measure of audit quality. Rather, the audited earnings of the clients of high-quality auditors are likely to be of higher quality *as a consequence* of using a high-quality auditor. Better auditors will constrain managerial aggression in the estimation of accruals and accrual adjustments: the result is that these earnings are more likely to be persistent (sustainable) and are less likely to be subsequently restated.

Turning to audit reports, they are issued in the name of the audit firm, with the lead engagement office identified, and signed by the engagement partner. Most audit reports are standard clean opinions, but around 20 percent of reports are going concern opinions that raise questions about the organization's ability to survive beyond the next year (Audit Analytics, 2022). Some scholars use going concern reports as a measure of audit quality. The argument is that high-quality auditors are more likely to issue an unwanted (negative) going concern report against the objections of the client. Other scholars look at the accuracy of going concern audit reporting as a way of measuring audit quality.

Other observable outcomes of audits are external quality reviews and inspection reports by regulators (PCAOB, FRC, AFM), regulator-imposed sanctions (such as SEC), and litigation against auditors for negligent audits. Audit fees, are publicly disclosed in most countries, but the relation between fees and quality can be difficult to isolate since fees reflect are the joint result of client and auditor factors. Other audit outcomes are proprietary and cannot be publicly observed such as testing details in audit workpapers, engagement hours, and internal firm quality reviews.¹³

5. Institutions

Institutions are important because they define an auditor's legal responsibilities. Institutions regulate both individual auditors and audit firms, and punish misconduct through regulator-imposed sanctions. Audit firm regulators conduct inspections (desk reviews) that focus on (1) the audit testing process for a sample of engagements that are desk reviewed, and (2) a more holistic assessment of a firm's quality control procedures to ensure a firm has a culture that supports the production of high-quality audits. Other important institutions include licensing bodies and professional societies, and the legal system which defines the ability to sue the auditor for negligence and fraud. Research to date suggests that the ability to sue an auditor is a strong institutional mechanism that incentivizes high-quality audits.

Lesson 4: Audit quality is not a singular measure, and can be meaningfully studied at multiple levels. Audits are of higher quality when done by (1) competent people, (2) who apply rigorous testing procedures, (3) who work in effective partner-led engagement teams, (4) are empowered by the organizational culture of their firms and offices to produce high-quality audits, and (5) who work in regulatory environments that encourage high quality and punish low quality.

This is not to suggest that all of the elements in the framework are of equal importance in explaining the variation in audit quality. The framework begins with micro-level inputs and ends with a macro-level focus on audit firms and institutions. However, for some time I have believed that importance runs in the opposite direction, that is, from institutions down to people and testing procedures. As a thought experiment, if we could look at all global audits, I would predict that the most important factor in explaining audit quality is having strong institutions in a country that create incentives for high-quality audits and punishment for low-quality audits. In terms of auditor-related factors, I view audit firms as the most important factor, with less importance for inter-office variation, and that differences in people and partner-led teams are relatively unimportant in explaining the variation in audit quality. I still believe institutions are the most important overall driver of audit quality, but I have changed my view on the ordering of the relative importance of auditor-related factors and will return to this point at the end of the paper.

6. The empirical evidence on audit quality

6.1. Going big: institutions and audit quality

The goal of institutional research is to identify the specific institutional features that are the fundamental drivers of audit quality around the world. There are two empirical strategies for conducting institutional research. First, since institutions differ across countries, one can compare differences across countries to identify the key institutional features that are associated with higher quality audits. Some of the characteristics that have been examined include the country's legal regime (common law versus code law), the strength of enforcement in a country, the power of regulators, and specific corporate governance mechanisms that protect creditor rights and shareholder rights, including the ability to sue companies and their directors. Collectively, these institutional features are sometimes referred to as the protection of investor rights, or, more simply, investor protection. In terms of the pecking order of institutional importance, research in accounting and financial economics consistently find that common law legal regimes (countries

¹³ Audit report lag (days after year end when the audit report is issued) is used by some scholars as a measure of quality, the idea being that longer lags imply lower quality. The problem is that quality might be improved if auditors take more time to resolve problematic issues. Other researchers use audit report lag as a measure of efficiency. Again, longer audit report lags can occur for a number of reasons, making it difficult to interpret what they mean.

like the UK and US) give the strongest protection to investors and are strongly associated with high quality accounting and auditing practices, while corporate governance practices are least important (Francis and Wang, 2008).

There has also been research on more audit-specific institutions, such as the ability to sue auditors for negligence, and the implementation of inspection regimes that provide oversight of auditors. For example, Carson, Lamoreaux, Simnett, Thuerheimer, and Vanstraelen (2021) show that the country-level adoption of auditor inspection regimes has generally had a significant positive effect on the quality of audits around the world.

There is a challenge with cross-country institutional research because causality is difficult to isolate. For example, we have observed empirically that audits are of higher quality in common law countries like the US and UK which give greater protection to investors. However, in common law countries there are also likely to be concurrently high-quality accounting standards and a strong regulatory oversight body such as the Securities and Exchange Commission in the US, and the Financial Reporting Council in the UK. In this case, what is it that drives audit quality? Is it common law legal regimes, or high-quality standards, or a strong regulator/monitor? More generally, the country-level metrics tend to be rather crude and may therefore have low power in explaining subtle cross-country differences in audit quality.

The second research approach is a cleaner design and identifies an institutional change within a country and conducts a classic pre-post analysis of the change. Causality is more readily identifiable, but the limitation of this approach is that there are relative few instances of major institutional changes within a country, and when such changes do occur there may be multiple dimensions that make audit quality inferences difficult. For example, Sarbanes Oxley (SOX) in the US in 2002 created new audit requirements such as the auditor being formally appointed by the Audit Committee of the Board of Directors (subject to shareholder ratification), and mandating a separate internal control report. But SOX also made managers explicitly responsible for financial reporting quality and imposed treble damages and potential criminal charges for misleading financial reporting. So, if audits were of higher quality post-SOX, is it due to the auditor's incentives for high-quality audits, or the incentives of managers and directors for high-quality financial reporting?

6.1.1. Examples of comparative cross-country analysis of institutions

Francis et al. (2003) examine publicly listed companies in 31 countries to study how a country's investor protection (IP) regime affects the quality of auditing and financial reporting, and the relation of accounting/auditing to a country's financial economic development. They find that financial accounting is of higher quality in countries with stronger IP regimes, and that the large international audit firms have bigger market shares in these countries, indicating that more audits in these countries will also be of higher quality. Thus, IP is associated with high-quality accounting and auditing practices. They also find that financial market development is greater in countries with higher quality accounting and auditing practices, but only when there is concurrently strong IP. The implication is that high quality accounting and auditing alone does not facilitate a country's financial development, suggesting that strong IP and accounting/auditing quality are complements to each other rather than substitutes.¹⁴

Francis, Michas, and Seavey (2013) investigate how the institutional structure of a country's audit market affects the quality of audited financial statements in a country. They examine if audit market concentration harms quality, which is a concern of regulators around the world. Francis, Michas, and Seavey (2013) find that overall quality increases when the market share held by large audit firms is greater. In addition, audit quality of smaller audit firms is relatively better when the large firms are more dominant, suggesting that smaller firms must compete on higher quality in these countries. However, they find that audit quality decreases when industry-specific market shares are more concentrated among one or two of the Big 4 firms. There are two important implications. First, contrary to the concerns of regulators, market concentration by large audit firms does not harm quality and actually seems to improve it. However, industry-specific market concentration does appear to harm quality, possibly due to less within-industry competition among auditors.

6.1.2. Examples of institutional changes within a country

Francis and Krishnan (2002) investigate how institutional changes in the auditor's legal liability exposure affect an audit firm's risk-management strategies. They examine the *Private Securities Litigation Reform Act of 1995* (PSLRA), which reduced the auditor's legal liability in the United States under Federal securities laws. Pre-PSLRA, when litigation exposure was greater, their evidence suggests auditors screened out riskier clients and issued more going concern audit reports as protective measures to manage their litigation exposure. Post-PSLRA the opposite occurred. The implication is that litigation exposure affects auditors' incentives to produce high-quality audits, with a reduction in audit quality – fewer going concern reports – after litigation exposure was reduced. Contrary to what audit firms might want to hear, the evidence is strongly suggestive that legal liability exposure is an important driver of audit quality.

Francis and Wang (2005) investigate another institutional feature of audit markets, the 2002 mandated audit fee disclosures in the US, to determine how the requirement influenced audit pricing and auditor-client matching. They find that public fee disclosures

¹⁴ In related work, Francis, Khurana, Martin, and Pereira (2011) use World Bank data on private companies from 62 countries to investigate the relative importance of a set of country-level institutional variables versus a set of firm-specific variables in explaining the decision by private entities to have voluntary audits. They find that each set of variables is significant over and above the other (suggesting equal importance). However, there is also evidence of a substitution effect: firm variables become relatively more important in countries with weaker institutions. The implication is that when institutions are weak, then firm-specific factors become relatively more important in explaining voluntary audits, at least for the private companies in the World Bank dataset.

were informative. Post-disclosure, audit pricing had more precision as evidenced by less cross-sectional variation in fees. They also find evidence of post-disclosure fee adjustments, with downward (upward) adjustments for firms with abnormally high (low) pre-disclosure fees, and some evidence of an increase in auditor switching by firms with abnormally high audit fees. Their findings show that the public disclosure of audit fees improved the precision of audit pricing, and affected audit-client matching.

Lesson 5. Institutions may be the most important global driver of high-quality audits, but it has been a difficult area to research due to the lack of detailed institutional data. For this reason audit research has made relatively slow progress in understanding how specific institutions affect audit quality, so there is important work to be done.

Francis and Wang (2008) investigate if large audit firms behave differently in countries with different institutions. More specifically, how does a country's investor protection (IP) regime affect the quality of audited earnings? Remember, audit firms are organized as country-specific partnerships, even though they are part of a larger global network. The null hypothesis is that audits do not differ in quality across countries. Francis and Wang test this hypothesis for a sample of audits of listed companies from 62 countries, and test several proxies for the institutions in a country that protect investors and which incentivize high-quality audits. They examine the quality of audited earnings for clients of larger auditors, compared to the clients of smaller auditors and find the following. For clients of larger auditors, the quality of audited earnings is increasing in the strength of a country's institutions that protect investors. For clients of smaller auditors there are no significant differences across IP regimes. The implication is that large-firm quality is not globally universal but is conditional on the specific incentives created by a country's institutions and investor protection regime. Larger audit firms are more responsive to these institutions because they have larger clienteles at risk and are more affected by adverse reputation effects of bad audits, which are more likely to be detected in countries with stronger investor protection regimes.

Lesson 6. Prior cross-country financial accounting research shows that earnings quality improves as investor protection regimes become stronger. What Francis and Wang (2008) demonstrate is the important role auditing plays in high-quality financial reporting. Earnings quality does not universally improve with stronger investor protection, per se; rather, earnings quality is mediated by auditing and the institutional-driven incentives of auditors to produce high-quality audits.

6.2. Going smaller: from audit firms to audit offices as the unit of analysis

Empirically, larger audit firms appear to provide a better-quality audit relative to smaller audit firms, as evidenced by that fact that they charge higher audit fees (Francis, 1984), and their clients have higher quality audited earnings (Francis, Maydew and Sparks 1999). These findings also imply that there is a market for differential audit quality that is supplied by larger audit firms. What are the economic conditions that give rise to the demand for and supply of differential audit quality? Two theories from financial economics are used to explain the demand for differential audit quality. Agency theory posits that the demand for audit quality is increasing in an entity's agency costs. Agency costs arise from the separation of ownership and management, in which managers may not necessarily behave in the best interests of the owners, but the owners are unable to directly observe managerial behavior (Watts, 2003). The role of audited financial statements is to provide independent third-party assurance to owners that managers have behaved appropriately. Another agency cost arises from the use of external debt, where debtholders are concerned with the security of their principal and are fearful that management may engage in asset substitution and other actions that favor shareholders to the detriment of debtholders. Here the role of audited financial statements is to provide independent assurance to debtholders that managers have behaved appropriately with respect to creditor rights. Audits are thus important to debtholders, as well to equity investors, in mitigating agency costs.¹⁵

Agency costs are an abstract concept and empirically difficult to measure. Francis and Wilson (1988) and DeFond (1992) use proxies for the agency problem such as stock ownership dispersion, ownership held by managers, the use of accounting numbers in determining managerial bonuses, and the level of external debt financing. These two seminal studies show that the demand for putatively higher quality "large firm" audits is increasing in an organization's agency costs.

The other theory that explains the demand for differential audit quality is adverse selection. Adverse selection arises when there is information asymmetry between two parties that allows the better-informed party (with the information) to take advantage of the other party. The classic example is the used car market, or what has been called the market for lemons (Akerlof, 1970). While agency theory examines the problem of hidden action by managers, adverse selection addresses the problem of hidden information in which managers or insiders are better informed than outsiders. In the extreme, if information asymmetry is too great, markets will collapse. The role of audited financial statements is to mitigate the problem of hidden information, prevent market collapse, and reduce information uncertainty to a tolerable level between managers of an organization and outside stakeholders.

In a test of adverse selection, Francis, Maydew and Sparks (1999) show that the demand for large-firm audits is directly related to the uncertainty of a firm's accounting information. They argue that information uncertainty is increasing in a firm's accounting accruals, and they find that the demand for large-firm audits is increasing in the level of accruals. Francis et al. (1999) also show the effect

¹⁵ Bandyopadhyay and Francis (2005) document the importance of audits in bank lending using an experimental setting with loan officers, and show that private bank loans to small business are more likely to be made when there is an audit, and that interest rates are lower compared to loans made with no accompanying audit.

of a firm having a large auditor. The level of a firm's unexpected or abnormal accruals is lower, all else equal, when there is a large auditor. In other words, the potential information uncertainty arising from accruals creates the demand for high quality (large firm) audits, but the use of a high-quality auditor has the effect of reducing the firm's abnormal accruals.

In related research, [Francis and Krishnan \(1999\)](#) show that the information uncertainty created by high levels of accruals leads auditors to report more conservatively by issuing more going concern modified audit reports, all else equal. A closer analysis of the data shows that this is true only for large audit firms, which is another indication that large audit firms are the drivers of high-quality audits, at least in the US audit market.

6.2.1. Differentiation among large audit firms based on industry specialization

Beginning in the late 1980s, audit firms began to emphasize their industry expertise as a marketing strategy in response to the deregulation of many of the commercial prohibitions on marketing and direct client solicitation. [Francis, Craswell and Taylor \(1995\)](#) show that Australian audit firms with larger industry market shares also have larger audit fees, reflecting an industry premium. [DeFond, Francis, and Wong \(2000\)](#) find similar results in Hong Kong. Higher fees imply higher quality audits, and [Balsam, Krishnan and Yang \(2003\)](#) report evidence consistent with industry leaders providing better audits as reflected by higher quality audited earnings.

Do large audit firms have positive effects beyond improving the quality of the audited financial statements? [Feng, Francis, Shan, and Taylor \(2023\)](#) investigate this question by examining the voluntarily disclosure of non-GAAP performance measures. The rationale for non-GAAP disclosure is that GAAP requirements can distort a firm's true economic performance, and adjustments are made to GAAP earnings to (arguably) report a better measure of sustainable earnings. There has been global growth in non-GAAP reporting, with most listed firms around the world now doing this. Regulators have expressed concerns that such disclosures can mislead investors, and there have been suggestions that auditors should be required to audit such disclosures. [Feng et al. \(2023\)](#) examine non-GAAP disclosures by US and Australian companies, and find that the quality of these disclosures is better for companies with Big 4 auditors and auditors with greater industry expertise. Their results suggest that high-quality auditors can restrain companies from aggressive non-GAAP reporting, in the same way that high-quality auditors restrain their clients from aggressive earnings management with respect to GAAP reporting.

6.2.2. Audit firms as a networks of semi-autonomous offices operating in local markets

Industry expertise was initially conceptualized as applicable to all audits of an accounting firm in those industries where it had a dominant national market share. However, [Francis, Stokes and Anderson \(1999\)](#) examine US data and document that an audit firm's industry leadership is typically driven by a small number of offices with large numbers of clients in a particular industry, and that most other offices have very few clients in that industry. Another important insight from their paper was the realization that the lead engagement office on an audit is disclosed in the audit report. This disclosure makes it possible to construct office-level client portfolios, and to re-think audit markets as city-specific markets rather than a single national-level market.

When we study audit firms, we implicitly treat the audit market as if it is a national market. However, when we study individual offices, we treat the audit market as if it is a city-specific local market. This is a reasonable assumption given that over 75 percent of audit engagements are done by offices in the same geographical locale as the client's headquarters, at least this is the case in the US audit market.

Lesson 7. In some countries, audit markets may be better understood and researched as city-specific local markets.

This re-thinking of the nature of the audit firm begs the question of whether an audit firm can build industry expertise in one office where it has many clients in an industry, and then effectively share it with other offices (with less experience in the industry) through knowledge sharing practices. [Ferguson, Francis, and Stokes \(2003\)](#) examine this question with Australian data, [Francis, Reichelt, and Wang \(2005\)](#) with US data, and [Basioudis and Francis \(2007\)](#) with UK data. These three studies all show that in horse-race tests, city-level expertise office consistently beats national-level industry expertise in explaining audit quality. This evidence suggests that knowledge transfers do not seem to occur, that local expertise is what matters most, and reinforces the view that audit markets are better understood as local or city-specific markets.

[Francis, Mehta, and Zhao \(2017\)](#) explore the fragility of city-specific audit markets. They show that when an office gains a major industry client, the office is likely to become the new industry leader in that market, while an office that loses a major client also loses its industry leadership. They also show that offices gaining a major industry client can charge higher fees for same-industry clients, reflecting a reputation premium for industry leadership, while offices losing a major client charge lower fees to retain their same-industry clients. These reputation shocks last for up to the three years. Finally, gaining or losing a major client also creates a shock to the capacity of an audit office and its ability to do high-quality audits. The evidence is that offices gaining (losing) a major client subsequently have lower (higher) audit quality on same-industry clients. An office's resources are strained when gaining a significant new client, while offices losing clients have more resources available to conduct high-quality audits. Their study illustrates the dynamic nature of city-specific audit markets as auditor reputations ebb and flow along with the office's capacity to do high-quality audits.

Lesson 8. Initial research suggested that audits are of higher quality when done by Big 4 firms, and by Big 4 firms with greater industry expertise. Subsequent research has shown that the Big 4 results do not hold across all countries, and that

Big 4 industry expertise is more salient at the office-specific level. “Going small” in audit research has resulted in a more nuanced understanding of Big 4 and industry expertise effects on audit quality.

Two studies show that the effects of large audit firms and industry expertise are driven by the largest offices of Big 4 firms. Francis and Yu (2009) show that larger Big 4 offices do better audits, and that industry expertise has no effect on earnings quality after controlling for audit office size. In their study, audit quality was inferred from the client’s abnormal accruals, earnings management to meet earnings benchmarks, and the auditor’s propensity to issue going concern reports. The second study by Francis, Michas, and Yu (2013) examines Big 4 client restatements and finds that restatements occur less frequently for clients audited by larger offices. Again, industry expertise has no effect when controlling for office size. They also find that there is no difference in the quality of non-Big 4 and Big 4 audits, except for the largest quartile of Big 4 office size (those offices with 31 or more listed clients). In short, a lot of what we have attributed to audit firm size (Big 4) and to Big 4 industry expertise, at least in the United States, is better described as a “large Big 4 office” phenomenon. Empirically, most Big 4 audits are indistinguishable from those of non-Big 4 firms. Only those audits by the very largest Big 4 offices are demonstrably of higher quality.

We do not currently understand what it is about large offices that leads to better audits. Francis and Yu (2009) speculate that larger offices have deeper labor pools of partners and staff with industry expertise which makes it easier to assemble engagement teams with appropriate industry expertise. Larger offices will also have larger partner pools, which may lessen the need to have a non-local partner when mandatory partner rotations occur. Francis, Golshan, and Hallman (2022) find that audit quality is lower when there is a non-local partner. The analysis in Beck, Francis, and Gunn (2018) suggests another possible explanation. They draw on the urban economics literature which shows that labor is more productive in high-human capital cities due to knowledge spillovers and the self-selection of talented people to high-human capital cities. They do not study large audit offices, per se, but they do find that audits are of higher quality in cities with greater human capital. So, if the largest Big 4 offices in the US are concentrated in high-human capital cities such as New York, Boston, and San Francisco, where labor in general is more talented and productive, then such offices might also be capable of higher quality audits, all else equal.

The office-specific nature of auditor expertise is explored in a different way by Francis and Michas (2013). They examine if the presence of an audit failure in an office (based on a client’s downward restatement of earnings) is indicative of a contagion of other concurrent low-quality audits in the office, or alternatively, if an audit failure is an isolated event in the office. Their evidence shows that offices with an audit failure, also have other concurrent low-quality audits for up to five years after the audit failure, and that there is also a higher likelihood of having additional audit failures in subsequent years. Importantly, their results also show that there is no contagion in larger Big 4 offices, defined as the upper quartile of Big 4 office size. In other words, an audit failure is more likely to be an isolated case for a large office, with no evidence of contagion, whereas for other offices, an audit failure is indicative of other low-quality audits in the office. Again, the evidence supports that differential Big 4 audit quality is driven by the largest offices.¹⁶

What have we learned from going smaller in firm-level and office-level research? On average large audit firms appear to do higher quality audits, and large firms with greater industry expertise appear to do even higher quality audits. However, when we look more closely at the data for individual offices, we see that the so-called large-firm effect and industry-expertise effect are driven by the largest quartile of Big 4 offices. In contrast, if we look at the smallest 75 percent of Big 4 offices, their audits look very similar to that of other audit firms. The shift to an office-level unit of analysis also asks the question, are knowledge sharing practices sufficient for a multilocation audit firm deliver consistent quality across offices? The evidence is clearly no.

Lesson 9. Going even smaller in focus has shown that the presumed superiority of Big 4 audits and the effect of industry expertise on quality are driven by the largest offices of the Big 4 firms, at least in the United States. In contrast, for audits by other Big 4 offices there are no differences in quality compared to non-Big 4 firms. However, we do not know why large offices do better audits, and there is a need for research to understand what it is about the culture and human capital of these large offices that results in better quality audit outcomes.

From a policy viewpoint, these findings suggest it might be best if smaller offices were prohibited from auditing listed public companies, as such companies have more complexity and require greater experience and expertise from the auditor than might exist in smaller audit offices. Such a policy would require larger offices to audit more distant (non-local clients). However, we do not know if this would result in better audits, and research is needed on this very important policy question.

A recent study by Francis et al. (2022) provides some initial evidence that non-local audits may not be a good idea because they are potentially of lower quality. Francis et al. (2022) use the new partner disclosure data in the US to investigate the following question: Does a partner’s geographical distance from a client influence audit quality? It turns out that about one-third of the audits of US listed

¹⁶ Another benefit of office-level analyses can be seen in Reynolds and Francis (2000). In the 1990s, US regulators became concerned that auditors are lax in dealing with their large and important clients. If one looks at the overall US audit market, no single client stands out as being large in an audit firm’s client portfolio, and there is no evidence that large clients are treated leniently by auditors. In contrast, when examining individual offices, the largest client in an office can represent as much as 30 percent or more of the office’s audit revenues. However, contrary to the concern of regulators, Reynolds and Francis (2000) show that large clients in offices are not treated leniently but are in fact treated conservatively as evidenced by smaller abnormal accruals and more going concern audit reports. Audit offices appear to have incentives to be especially careful in the audits of their larger clients and to report more conservatively. This research also shows the importance of rigorously examining the claims of regulators about audit quality, just as it is important to objectively examine the claims made by audit firms about quality.

companies have a partner who lives more than 100 km from the client. The emergence of distant (non-local) partners is the consequence of two developments; industry specialization by partners, and the mandatory rotation of audit partners every five years. The combined effect is that an office-based partner may run out of local clients in his or her industry, and must service more distant clients. The alternative is to move closer to a client, but moving is expensive and personally disruptive. What drives the choice of a non-local partner? While a local partner is generally preferred, a non-local partner becomes more likely if the client is (1) a large firm in the S&P 500, (2) located in areas with fewer local partners, (3) in an industry with complex accounting rules, and (4) geographically dispersed.

What are the consequences of having a distant partner? After controlling for the engagement office distance from the client, audit quality is decreasing in partner distance as evidenced by: (1) a higher probability of a misstatement; (2) larger abnormal accruals, and (2) more earnings management behavior to meet or beat analysts' consensus earnings forecasts (a measure of aggressive earnings management). However, the adverse effect of distance is mitigated if the partner has access to a nonstop direct flight to the client. Anecdotally, a Big 4 partner in St. Louis who audits a client in Tampa told me it is easier to get to the Tampa client (on a nonstop flight) than to some of the partner's other "local" clients that require a long commute. The lesson here is that talking to accounting professionals is important. In fact, the idea for this project began 12 years ago when I had dinner with an audit partner who lamented that he did not expect to be travelling so much at this stage of his career.

6.3. Going even smaller: engagement partners and audit quality

The next step in the evolution of audit quality research examines how differences in engagement partners affect audit outcomes. An emphasis on partners as the focal point is made possible by the newly emergent disclosures (around the world) of the audit engagement signing partner (Lennox and Wu, 2018). Most partner research to date has focused on publicly observable partner demographics such as age, experience, busyness and gender, and there is some evidence that partner differences do matter (e.g., Knechel, Vanstraelen, and Zerni, 2015).

Cameran et al. (2022) use UK data and build on to the analysis in Gul, Wu, and Yang (2013) of small non-Big 4 Chinese audit firms. Cameron et al. (2022) examine the relative explanatory power of British audit firms, audit offices, and audit partners in explaining audit outcomes. The audit outcomes in their study are abnormal accruals, restatements, and going concern audit opinions. Higher quality audits are evidenced by clients with smaller accruals, fewer restatements, and more going concern opinions. Not surprising, client control variables are the dominant set of regressors and accounts for about two-thirds of the explained variance in the models. However, their other results are startling. Audit partners are the next most important set of regressors, dominating both audit firms and offices, and represent around 25 percent of the explained variance in the three models. In contrast, engagement offices account for only 6–9 percent of the explained variance, and audit firms only 1–4 percent of explained variance. They also examine partner demographic variables like age, experience, busyness, and gender, and find that once the effects of audit firms and audit offices are controlled for, there are no significant partner variables. This is important because prior studies that investigate partner variables have not typically controlled for the concurrent effects of audit firms and offices.

Lesson 10. Partner effects are important in explaining differences in audit quality. The relative importance of audit-related factors in explaining audit outcomes is the opposite of what I previously believed: partner-led engagement teams are an important factor – maybe the most important – in explaining audit outcomes. But we do not know what it is about partners (and their audit teams) that matters and how it affects quality.

7. Research collaboration with audit firms

The evidence in Cameran et al. (2022) indicates that partner differences are important, but demographic variables explain very little of the inter-partner variation in audit outcomes. My FAR chair provides an opportunity to move inside the black box of the audit firm, to learn more about the internal structures of audit firms and the people who do audits, and to learn what it is about partners and the internal management of the audit team that really matters. A unique feature of the FAR chair, and the other research projects being supported by the *Foundation for Auditing Research*, is the unprecedented access to internal propriety audit firm data and to audit professionals for experiments, field studies and surveys. The FAR initiative has revolutionized audit research, made possible important research projects that simply could not be done before, and has supported research teams assembled from the best audit scholars around the world.

7.1. FAR (2019): What makes audit partners and their engagement teams successful?

The research in FAR (2019) examines personal characteristics – personality traits, competencies and leadership behaviors – of the partners and managers who lead audit teams.¹⁷ The goal is to assess if personal characteristics are an explanation for inter-partner differences in audit outcomes (Cameran et al., 2022). Thus, the objective is to examine if audits are affected by differences in the

¹⁷ FAR (2020) is another project being supported by the *Foundation for Auditing Research*. It examines the internal culture of audit firms, and the effect of culture on the quality of audits and the economic performance of audit firms. It uses the "competing values framework" (Hegarty, Gielen, and Barros, 2004) to measure a firm's culture across two dimensions: the firm's focus (internal or external) and firm's control structure (tight or flexible).

personal characteristics of the senior members of the audit team (partners and managers). The project consists of three separate surveys, plus archival data from audit firms. We have survey data for 1608 Dutch partners and managers in the 10 largest Dutch audit firms that support FAR (the Big 4 firms plus six other large audit firms). Here are some of the questions we are examining. Descriptively, what are the personality traits of auditors? Are people similar across firms? Across ranks? How is personality related to job skills and leadership behaviors? The organizational behavior (OB) literature documents that personality can affect job performance. How is personality related to performance assessment by audit firms? At the engagement level, how are specific partner-manager dyads formed for engagements? Do partners choose managers or is it done by the firm? Is there homophily? Are partners and managers similar or different? How do these similarities or differences affect leadership behaviors and audit team performance?

Using the FAR (2019) project data, Pieper (2022) examines the effects of personality traits on job performance, using a structural equations model in which the effects of personality traits on job performance are mediated by the skills of partners and managers. Results for the mediation model show that both Commercial skills and Technical skills are positively related to job performance. Leadership skills are not significant in the full model. However, when analyzing partners and managers separately, we find that partners are rewarded for their leadership skills. Results for each of the individual personality characteristics are as follows:

- **Agreeableness.** A negative direct effect on performance; positive indirect effects on Commercial and Leadership skills; negative indirect effect on Technical skills.
- **Conscientiousness.** A negative indirect effect on Commercial skills; a positive indirect effect on Technical skills.
- **Emotional Stability.** A negative indirect effect on Commercial skills.
- **Extraversion.** A positive direct effect on performance; and positive indirect effects on Commercial and Leadership skills.
- **Openness.** Positive indirect effects on Commercial and Technical skills.
- **Dark Triad.** A negative direct effect on performance; a positive indirect effect on Commercial skills.
- **Bravery.** A positive indirect effect on Commercial, Technical and Leadership skills.

Pieper (2022) concludes that personality traits are important. Three of the characteristics have a direct effect on job performance (agreeableness, extraversion, dark triad), and all of the personality characteristics have an indirect effect on job performance through their mediation effect on one or more job skills. Extraversion is the single-most important trait. Note that these results are descriptive of “what is” rather than “what should be” important in job evaluation. For example, it is possible there is an extraversion bias in the performance reviews, and that extroverts are over-promoted to partner which results in less diversity among partners.

What are some other implications? First, since differences in personality traits do appear to affect job performance, firms should consider personality in hiring and personnel management decision, and in targeted training sessions taking personality differences into account. Where things get interesting is how the personality traits can have conflicting mediating effects on competencies. For example, Conscientiousness has a positive mediating effect on Technical skills, but a negative effect on Commercial skills. While Dark Triad is negatively related to overall job performance, it has the opposite effect on Commercial skills.

There is clearly some tension between the commercial and technical sides of auditing, and the role that personality plays is quite different for these two skills. Dark Triad and Agreeableness negatively affects Technical skills, but have the opposite effect on Commercial skills. Conscientiousness positively affects Technical skills, but has the opposite effect on Commercial skills. Technical skills it seems are benefited by being grumpy but careful, while Commercial skills are benefited by cheerfulness, being not so careful, and having a dark side. Despite the tension and seeming incompatibility, both skills are needed in audit firms. Effectively managing these tensions is a challenge for audit firms.

In another study from the FAR (2019) project, Barrick et al. (2022) examine how the dual partner-manager leadership structure of an audit team affects team performance. The organizational behavior (OB) literature identifies two general leader behaviors that drive team success. *Initiating structure* is the degree to which a leader defines and organizes his or her role and the roles of followers, is oriented toward goal attainment, and establishes well-defined patterns and channels of communication. *Individual consideration* is the degree to which a leader shows concern and respect for followers, looks out for their welfare, and expresses appreciation and support. Team science research in the OB literature has focused on single-leader teams. In audit teams, given that there is a dual leadership structure, we hypothesize that both the engagement partner and engagement manager are important in effective team leadership.

What do we find? First, audit team outcomes – *Viability* (should this team work together again?) and *Performance* (meeting expectations in a timely manner) – are mediated by audit team *Efficacy*, which is the shared sense of confidence in the team’s capability. Greater *Efficacy* leads to better team outcomes. But what drives *Efficacy*? Better audit team outcomes occur when dyads have one member (either partner or manger) with high *Initiating Structure* skills, and the other member has high *Individual Consideration* skills. However, the most effective dyads occur when both dyad members (partner and manager) have high *Individual Consideration* skills, and when either the partner or manager has high *Initiating Structure* skills. Thus, it seems the traditional structure in which the audit partner interacts mainly with the manager and attends to the client relationship, while the manager works more closely with the audit team, is inferior to a model in which the partner is more fully engaged with the audit team. In short, a more collaborative dual leadership structure is most effective. This finding is consistent with the general trend of organizations becoming “flatter” with less hierarchical structure.

The implications of these findings for audit firms are as follows. First, given that personal characteristics do matter and affect job performance, firms should carefully consider these characteristics in their hiring decisions and training programs. Second, certain personal characteristics such as the Dark Triad may be problematic and need to be carefully *managed* to avoid dysfunctional consequences. Third, firms need to ensure that the partner-manager dyad engage in leadership behaviors that maximize efficacy and audit team performance, and in particular that audit partners have both high *Individual Consideration* skills and high *Initiating Structure* skills.

Finally, if firms desire greater diversity in the personalities of their experienced auditors, they may want to re-evaluate their performance review systems to avoid possible biases such as the potential over-emphasis on extroversion.¹⁸

8. Going forward

I close with a brief discussion of important research questions that warrant further investigation. Going big at the institutional level, what is the optimal level of regulation and oversight in a country? How much regulation is enough? How much auditing is enough? Is it realistic to have zero-tolerance for errors (audit failures)? How much does regulation actually improve audit quality? As [DeFond and Francis \(2005\)](#) note these are very difficult questions, yet answers are needed if we are to have intelligent and cost-effective regulation.

For large international companies, the cost of audits, which reflect the current regulatory regime, is relatively small. In the US, fees for large companies are less than 0.05 cents per dollar of sales (five-hundredths of one cent). This is not the case for smaller companies. For US companies with sale of less than \$8.5 million USD, audit fees are 7 cents per dollar of sales. For companies with sales between \$8.5 million and \$30 million USD, audit fees are 1.5 cents per dollar of sales, and companies with sales from \$30 million to \$65 million, audit fees are around 1 cent per dollar of sales. Around 30 percent of US listed companies have sale less than \$65 million, and for these firms the audit fees are quite large, especially given that the typical net profit margin is around 10 cents per dollar of sales and begs the question of whether audits are worth the cost for smaller listed firms.

Regulations that result in high audit fees might push some smaller companies into going private (or remaining private) which can limit their access to external financing and growth. This is problematic because smaller firms are known to be the driver of economic growth: smaller firms grow faster than large firms and have more job creation. Costly audit regulations may also deter some audit firms from auditing public interest entities because these auditors are under more scrutiny from regulators. Regulations that create disincentives to be a listed company or which lessen auditor competition, need to be carefully thought about and on the surface may not be a good idea.

Going smaller at the audit firm level, what is the optimal organizational structure in terms of centralization versus decentralization? Are audits more efficient, economical and effective in a centralized structure with fewer offices, or a decentralized structure with offices located close to clients? Is the local delivery of audits through a decentralized office structure better, or is the consulting model better in which teams are sent out from large central offices? The tradeoff is less information asymmetry with local offices versus greater expertise with large (more distant) offices.

Continuing with audit firms, what is the optimal investment a firm should make in its internal quality controls? Should the firm have tight hierarchical controls or should the culture be collaborative with more flexible controls? Put differently, how much do you trust and empower people, versus how much do you control them? What are the long-term implications of each approach for the attractiveness of the auditing profession, for recruiting, and for job satisfaction and job turnover in the firms? Preliminary findings in [FAR \(2020\)](#) indicate that audit firms are mainly focused on quality controls due to regulatory pressures, to the exclusion of innovations and an external focus on their business practices.

Finally, going even smaller and building on the [FAR \(2019\)](#) research project, what is the optimal structure for staffing and managing audit engagement teams? What are the key personal attributes (personality) and leadership skills needed for effective audits? How do you manage the tension between the commercial skills needed for building the business versus the technical audit skills needed to produce high-quality audits? What is the right balance between the two?

9. Conclusion

Economics-based archival research that “goes big” will continue to be important in studying institutions, regulations and their effects on audit markets and audit quality. As stated earlier, institutions in particular are important and have a first-order effect on audit quality. However, an organizational behavior research approach that “goes small” is needed to understand the internal workings of the audit itself, to learn how individual differences in people and their leadership behaviors affect audits, how people work best together in effective engagement teams, and how audit firms can develop an internal organizational culture that enables and rewards the team-based production of high-quality audits. These are the kinds of research questions we need answers to in order to fully understand the drivers of audit quality, over and above the effects of country-level institutions.

¹⁸ Given our findings that differences in personal characteristics are important in job performance, what are the implications for experimental audit research? There is a large body of experimental research that studies auditor judgment and decision-making. The focus in much of this research is understanding the audit process, and how auditors apply audit testing procedures to gather and interpret evidence and make audit reporting decisions. In experiments, individual personal differences are viewed as a potential source of bias and is controlled by randomly assigning individuals to treatment conditions. Randomization is a powerful tool in classic experimental research design because it controls for extraneous variance unrelated to experimental conditions. However, our results show that individual (personal) differences are in fact important determinants of auditor job performance and leadership behaviors. The concern, then, is that randomization of subjects to control for personal differences will throw away an important source of systematic variation in explaining auditor behavior in experiments. It follows that scholars might consider experiments that explicitly test for the effect of personal characteristics on the experimental task being investigated, instead of simply controlling for personal differences through randomization.

Data availability

The authors do not have permission to share data.

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