

Comments of the Auditing Standards Committee of the Auditing Section of the American Accounting Association on PCAOB CONCEPT RELEASE ON AUDIT QUALITY INDICATORS, NO. 2015-005, JULY 1, 2015

September 29, 2015

Office of the Secretary
Public Company Accounting Oversight Board
1666 K Street, N.W.
Washington, DC 20006-2803
Re: PCAOB Rulemaking Docket Matter No. 041.

The Auditing Standards Committee of the Auditing Section of the American Accounting Association is pleased to provide comments on the PCAOB AQI Concept Release.

Participating Committee Members:

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The views expressed in this letter are those of the members of the Auditing Standards Committee and do not reflect an official position of the American Accounting Association. Furthermore, the comments reflect the overall consensus view of the Committee, not necessarily the views of every individual member.

We hope that our attached responses are helpful and relevant to your final deliberation on AQIs. Please do not hesitate to contact our Committee Chair, Zabi Rezaee if you have any questions or need any information.

Respectfully submitted,

Zabi Rezaee

Auditing Standards Committee, Auditing Section – American Accounting Association

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EXECUTIVE SUMMARY

On July 1, 2015, the Public Accounting Oversight Board (PCAOB) issued its Concept Release seeking comments by September 29, 2015 on a portfolio of 28 potential Audit Quality Indicators (AQIs). The Auditing Standards Committee of the Auditing Section of the American Accounting Association is pleased to provide comments on the PCAOB Rulemaking Docket Matter No. 041. The committee wholeheartedly supports the development, implementation, and disclosure of AQIs and commends the PCAOB for its comprehensive and relevant concept release. The committee has a number of suggestions for the PCAOB on its AQIs project. We summarize these here, with detailed discussion later in the text. We suggest that the PCAOB:

- Use its authority as a regulatory body to gather and analyze privately held information while maintaining the confidentiality of this sensitive information (e.g., partner performance and compensation) in the further refinement of AQIs.
- Provide an overall definition of audit quality relevant to both financial statements and internal control over financial reporting (ICFR) and use the three categories of their AQIs Framework to develop a specific definition of audit quality for each category of audit professionals, audit process, and audit results.
- Continue to focus on the four groups (audit committees, audit firms, investors, and the PCAOB including other Regulators) as the primary users of the AQIs, because these stakeholders are relatively more likely to use AQIs in various decisions compared to other user groups.
- Consider including the subheading “Tone at the Top and Leadership” as a component of the broad category of “Audit Professionals,” and the subheading “Focus” as a component of “Audit Process.”
- Require firms’ use of quality rating categories such as “exceptional performance”, “meeting expectations”, or “needs improvements” in the evaluation of audit personnel that may improve audit performance and effectiveness, and thus, audit quality and comparability among firms.
- Require the work load of audit personnel (staff, managers, partners) during the busy season (e.g., January 1 through March 31) be measured in terms of average billable hours per week and be used as an indicator of audit quality in the category of the audit process.
- Require mandatory reporting of a core set of AQIs that can create incentives for audit firms to compete on audit quality.
- Establish an “implementation or pilot testing” committee consisting of representatives for the PCAOB, the Center for Audit Quality, investors, audit committees, public accounting firms, and academia to address implementation issues of AQIs.
- Require that these potential 28 AQIs and others suggested AQIs in this report be used as guiding principles rather than a blueprint by individual firms to develop a business culture that better understands audit professionals, audit process, and audit results and the development of best practices driven by their firm’s culture of competency, integrity, and independence to improve audit quality and sustain public trust in the accounting profession.
- Enforce more accountability for public company audit firms by requiring the personal signature by the engagement partner in order to ensure high quality audits.
- Consider the committee’s suggestions regarding potential ways to move forward with further deliberations on this concept release, as specified in the last section of this report, titled “Moving Forward with AQIs”.

INTRODUCTION

Audits of financial statements and internal control over financial reporting (ICFR), in the aftermath of the Sarbanes-Oxley Act (SOX) of 2002 have played a significant role in the financial market by lending more credibility and reliability to public financial information used by investors in making sound investment decisions and making our capital market more efficient. The common understanding is that the primary role of auditors is to protect investors from receiving materially misleading financial information by lending credibility to financial statements published by public companies as reflected and measured by audit quality. The role of auditors and the value-relevance of the audit report have recently been challenged. For example, a recent survey of more than 250 financial statements preparers (executives), overseers (audit committees), and users (investors) suggests that the traditional audits must be improved in terms of information access, timeliness, and quality (Deloitte 2015). The public trust in auditors' judgments plays an important role in accepting audit functions as value-added services. This trust can be enhanced when auditors focus on their core values of integrity, objectivity, independence, competence, and audit quality.

In response to such concerns the Public Accounting Oversight Board (PCAOB) recently developed a portfolio of 28 Audit Quality Indicators (AQIs) to identify indicators that can signal the quality of an audit. The AQIs are classified into three categories: audit professionals, audit process, and audit results, and are intended to improve audit quality and effectiveness as well as the mechanism to communicate audit quality to audit committees, investors, audit firms, and regulators, including the PCAOB. While these categories are broad, they are consistent with the dimensions of audit quality explored in the academic literature (e.g., Francis 2011; Knechel, Gopal, Krishnan, Pevzner, Shefchik, and Velury 2013). The PCAOB foresees the AQI project contributing to a clearer view of auditing by identifying key variables, or indicators, to inform discussions about audit quality. The three principles underlying the development of the indicators are that they be as quantitative as possible, generate usable data to pose critical questions, and be used as a "balanced portfolio" of audit quality to reflect how the indicators work collectively. The proposed 28 AQIs provide information that various users have identified

as being useful in assessing audit quality (e.g. IAASB 2012 and 2014; Beattie, Fearnley, and Hines 2013; Christensen, Glover, Omer, and Shelley 2014).

DEFINITIONAL CHALLENGE OF AUDIT QUALITY

Audit quality is considered to be such a complex concept that it cannot be reduced to a simple definition (Financial Reporting Council 2008; Bonner 1990; Knechel et al. 2013; Francis 2011). The lack of a mutual agreement on what audit quality entails has led several regulators and standard-setters to conclude that reaching a consensus on a definition of audit quality may be impossible. For instance, the Financial Reporting Council (FRC 2008, 16) states that “there is no single agreed definition of audit quality that can be used as a ‘standard’ against which actual performance can be assessed.”

When the Advisory Committee on the Auditing Profession to the U.S. Department of the Treasury (ACAP) in their 2008 report recommended that the PCAOB possibly develop key indicators of audit quality for auditing firms to publicly disclose, they conceded that the inherent circumstances of auditing provide limited information on which to evaluate the quality of an audit (ACAP 2008). The ACAP specifies that "A key issue in the public company audit market is what drives competition for audit clients and whether audit quality is the most significant driver. Currently, there is minimal publicly available information regarding indicators of audit quality at individual auditing firms." (ACAP 2008: VIII 14). The failure of the sole observable output of the audit, a standardized report used by all auditors, to reveal the manner in which the audit is conducted creates a setting where the strengths and weaknesses of the audit process are opaque. ACAP acknowledged that the challenge of attempting to evaluate the elements of audit quality in such a setting is complicated by how difficult or impossible it is to accurately ascertain the quality and impact of the auditor's services. From early on, audit quality has been defined as an outcome conditional on the presence of certain attributes of auditors (Knechel et al. 2013).

The most frequently quoted definition of the concept is by DeAngelo (1981) who defines audit quality as “the market assessed joint probability that a given auditor will both discover a breach in a client’s accounting system, and report the breach.” While this definition intuitively partitions audit quality

into two components: (1) the likelihood that an auditor discovers existing misstatements; and (2) appropriately acts on the discovery (Knechel et al. 2013), it provides no insight into the multiple underlying factors that affect the auditor's capacity to detect misstatements (Francis 2011). Francis (2011) suggests item (2) relates more to the definition of fraud rather than a continuum of audit quality, considering that an auditor who knowingly does not report a misstatement commits fraud.

In an effort to contribute to defining audit quality, the Center for Audit Quality (CAQ) highlights two overarching concepts for the definition: (1) process-driven (system or input-based) quality; and (2) outcome-based (output-based) quality (CAQ 2013). Process-driven quality represents the degree of compliance of a process or outcome whereas outcome-based quality is the degree of perceived value reported by the person who benefits from that process or outcome (CAQ 2013). The PCAOB defines audit quality in its earlier audit quality projects as "meeting investors' needs for independent and reliable audits and robust audit committee communications on: (1) financial statements, including related disclosures; (2) assurance about internal control; and (3) "going concern warnings" (PCAOB 2013). However, there is a need for a commonly accepted definition of audit quality as a prerequisite for the identification, classification, measurement, and disclosure of AQIs. The committee recommends that the PCAOB use the three categories of their AQIs Framework to develop a definition of audit quality. A definition of audit quality should reference, be applicable to and reflect each aspect of the audit: audit professionals, audit process, and audit results. Additionally, it should reference both perceived and actual audit quality to reflect the importance of primary users of audit quality indicators. We believe such a definition would be more useful for informing discussions about audit quality and indicators that can signal quality in the conduct of an audit as well as reporting audit findings.

POTENTIAL USERS OF AUDIT QUALITY INDICATORS

Lack of a commonly accepted definition of audit quality, as discussed in the previous section, requires identification of the potential users of AQIs. The PCAOB identifies four groups of users of AQIs as "potential primary users" (page 18). These are audit committees, audit firms, investors and the PCAOB

(and other Regulators). The PCAOB also suggests a list of potential uses of AQIs by each of these groups. While the list of stakeholder groups is not comprehensive, we believe the PCAOB has rightfully focused on the above four groups because these stakeholders are relatively more likely to be using AQIs in various decisions compared to other user groups. Despite the inherent difficulty in defining audit quality, the proposed indicators provide information that various user groups have identified as being useful in defining audit quality (e.g. IAASB 2012 and 2014; Beattie et al. 2013; Christensen et al. 2014).

AUDIT QUALITY FRAMEWORK

The PCAOB has initially developed an audit quality framework that is based on past studies and current standards consisting of three segments: audit inputs, processes, and results (PCAOB 2013). The PCAOB creates audit quality indicators to “measure elements of the audit quality framework, which in turn provide insight into audit quality” (PCAOB 2013). The audit quality framework suggested in the 2015 PCAOB Concept Release contributes to a clearer view of auditing by identifying key variables, or indicators, to inform discussions about audit quality. The heart of the framework is to identify indicators that can signal quality in the conduct of an audit. A similar audit quality framework has been developed by the International Auditing and Assurance Standards Board (IAASB) in February 2014, entitled “A Framework for Audit Quality (AQ)” (IAASB 2014). The stated objectives of the IAASB framework on AQ are to address the key elements of AQ, to facilitate dialogue between users of AQ, and to find ways to improve AQ (IAASB 2014). The IAASB framework consists of five components of input factors, process factors, output factors, key indicators, and conceptual factors (IAASB 2014). Academic research (e.g., Francis 2011) also provides a framework for studying factors associated with engagement level audit quality to sharpen our thinking about conducting audit-quality research, and to help scholars, professional accountants, regulators, and policy makers to better understand the multiple drivers of audit quality.

The Financial Reporting Council (FRC) specifically identifies five drivers of audit quality which are: (1) the culture within an audit firm; (2) the skills and personal qualities of audit partners and staff; (3) the effectiveness of the audit process; (4) the reliability and usefulness of audit reporting; and (5) factors outside the control of auditors affecting audit quality (FRC 2008). In the following sections, we focus on

the PCAOB AQ Framework's three categories of AQ indicators: audit professionals, audit process, and audit results. Audit Quality is affected by factors at the firm and at the principal audit office, as well as on the engagement level. Below, we provide insights from academic literature regarding the broad categories and specific AQIs enumerated by the PCAOB. As a matter of style, we recommend including the subheading "Tone at the Top and Leadership" as a component of the broad category of "Audit Professionals," and the subheading "Focus" as a component of "Audit Process."

Audit Professionals (Inputs)

The Audit Professionals category includes the availability, competence, and focus AQIs. The first input is based on the premise that audits are of higher quality when undertaken by competent staff, managers, and partners. However, Francis (2011) notes that when competency goes beyond general education requirements and CPA licensing, we know very little about the skills and characteristics required of those who conduct audits. Potential evaluation of the effects of audit partner characteristics on audit quality may include analysis of partners signing the audit report and engagement tenure. Extant research suggests that cultural factors influence professional and auditor judgment (Hofstede 2001; Cohen, Pant, and Sharp 1995; Patel, Harrison, and McKinnon 2002; Hughes, Sander, Higgs, and Cullinan 2009; McGuire, Omer, and Sharp 2012; Knechel et al. 2013).

Operational audit inputs that are guided by auditors' level of professional skepticism frame how the audit process will be conducted. Academic research describes professional skepticism in many ways as "...a heightened assessment of the risk that an assertion is incorrect, conditional on the information available to the auditor" (Nelson 2009), "the propensity of an individual to defer concluding until the evidence provides sufficient support for one alternative/explanation over others." (Hurt 2010). This professional judgment extends to the amount of professional skepticism that auditors possess and act upon while conducting the audit. Thus, professional skepticism is embedded in not only the audit team's culture, but the entire firm's culture and the assessment of professional skepticism should be considered as an indicator of audit quality (Hurt, Brown-Liburd, Earley, and Krishnamoorthy 2013).

Accounting firm characteristics that influence audit quality include firm size, office size, industry expertise (Reichelt and Wang 2010; Francis and Yu 2009), characteristics of the accounting firm's management control system, and the degree to which the firm is centralized or decentralized (Otley and Pierce 1995). Additionally, study of the structuring of partner compensation contracts is necessary to assess how compensation affects the partner's incentives and behavior (Burrows and Black 1998; Liu and Simunic 2005; Francis 2011). Yet, research on the relation between accounting firms and audit quality is severely limited by the availability of data on characteristics of accounting firms. The committee believes analysis of information currently protected by accounting firms is key to the assessment of audit quality. We believe the PCAOB as a regulatory body has the ability to gather and analyze privately held information while maintaining the confidentiality of this sensitive information.

Research supports that the accounting firm's tenure on an engagement might adversely affect objectivity if the auditor becomes too cozy with the client (Brooks, Cheng, and Reichelt 2013; Davis, Soo, and Trompeter 2009). Other characteristics of a specific engagement include assessing the level of dependence on the fee structure of a specific engagement. The auditor's fee dependence can be measured at the engagement partner level, the engagement office level, or the firm level of analysis. In addition, fee dependency can be examined with respect to total fees from all services or from discretionary fees related to non-audit services. Another way in which accounting firms may affect audit quality occurs when former staff of the accounting firm holds a high-level executive position with the client. Menon and Williams (2004) report evidence that audit quality is lower when alumni of the accounting firm hold senior positions at client firms. Francis (2011) suggests it might be more important that input measures be reported for the individual engagement or engagement office rather than aggregated to the firm level. In conclusion, Francis (2011) encourages regulators and accounting firms to work together with auditing scholars to evaluate the kinds of metrics that might be useful indicators of both overall accounting firm quality and engagement-specific audit quality.

Francis (2011) observes that the importance of industry structure on the economic conduct of accounting firms has been under-analyzed by audit scholarship. As part of an industry where the audit

market is dominated by four large accounting firms creating an oligopoly, accounting firms can affect economic behavior in markets. While institutions within the audit industry create incentives for both individuals and accounting firms, Francis (2011) considers that the larger consequences from institutions flow to accounting firms and then filter down to individual auditors and engagement teams. The institutional setting for the audit profession includes the legal system that determines an auditor's legal responsibilities and institutional bodies that regulate accounting and auditing practices. Research linking audit quality to board characteristics (Carcello and Neal 2000, 2003; Hoitash, Hoitash, and Bedard 2009) generally supports that companies with stronger boards hire better quality auditors, and are less likely to dismiss auditors following going-concern audit reports. Francis (2011) questions whether good governance leads to the use of better auditors, or if strong corporations are simply more likely to have both good governance structures and good auditors.

Christensen et al. (2014) note that both auditors and investors relate a well-planned engagement that addresses the significant risks of the company to higher audit quality. Further, Elder and Allen (2003) provide evidence that auditors allocate more hours to areas with higher risk. Allocation of audit hours to phases of the audit, particularly high risk hours, would provide audit committees with assurance that risk areas have been properly addressed and could be used as an indicator of higher audit quality. A proactive communication with the audit committee regarding a comparison of the anticipated current-year and actual charged audit hours of previous year audits can be an indication of audit quality in proper planning, staffing, executing, and supervising the current year audit engagement. The overall quality and effectiveness of the audit strategies are better indicators of audit quality than the sole focus on the percentage of hours an audit firm devotes on different phases of an audit engagement.

Audit Process

The audit process category involves implementation of the audit inputs by the engagement team that require decisions and judgments concerning the planning, collection, and interpretation of evidence in support of the audit report. The audit process category includes tone at the top and leadership, incentives, independence, infrastructure, monitoring, and remediation indicators. Christensen et al. (2014) note that

both auditors and investors find the process of accounting to be an important determinant of auditing quality.

The tone at the top approach is important in any organization, including the auditing firms, in promoting competency, integrity, public trust, good image, and reputation which can only be achieved through high-quality work. Prior research (Schaubroeck et al. 2012; Pickerd, Summers, and Wood 2015) provides evidence of the importance of a strong tone at the top in ensuring operational, internal control and financial reporting effectiveness. The tone at the top should be set by the firm leadership and at the partner level. The committee agrees that a survey of how this top leadership is being perceived by firm personnel, such as managers and staff, can be of an indication of audit quality. We support the PCAOB bottom-up approach in expending AQIs from an “engagement-level” to “firm-level”, “region-level” and “audit firm-level”. This approach requires different level of specificity and flexibility for auditors to communicate AQIs and related issues and challenges to the audit committee. This approach is also useful in tailoring AQIs to support the audit committee in effectively discharging its oversight responsibility of external audits. The office-level AQIs can be a very effective vehicle for auditors to discuss audit quality with the audit committee. Thus, the appropriate tone at the top and leadership of the audit firm is essential in addressing audit quality.

The proper compensation of audit professional similar to other professionals (corporate executives) is a complex process shaped by many factors including: the audit fee structure, chargeable audit hours for staff, managers, and partners of the engagement, the level of audit risk, and the extent, timing, and nature of the audit procedures required to manage audit risk. Information about the incentives of the audit team can provide information about how these audit participants contribute to audit quality. Research supports that firms’ use of quality rating categories such as “exceptional performance”, “meeting expectations”, or “needs improvements” in the evaluation of audit personnel may improve audit performance and effectiveness, and thus, audit quality and comparability among firms.

There is a well-developed literature on the relation between audit effort and audit quality. For example, Shibano (1990) develops a model that demonstrates how the auditor can decrease the

probability of undetected misstatements through higher audit effort. Matsumura and Tucker (1992) experimentally find that audit fees are negatively related to undetected fraud. While audit fees are publicly available information, more information about the effort of the audit can provide information about audit quality. We suggest the use of more specific measurements of audit effort that reflects engagement adjustment for client risk, such as the chargeable hours for staff, managers, and partners audit efforts, provide better indicators of audit quality, rather than the use of an aggregated audit fee that mutes such details of input factors.

Guedhami and Pittman (2006) underscore the importance of audit infrastructure by providing evidence that audit infrastructure at the country level moderates agency conflicts between outside investors and controlling shareholders. From a firm-specific perspective, Banker, Change, and Kao (2002) provide evidence that audit efficiency increases following implementation of information technologies. However, the level of investment in infrastructure can vary across firms and across time depending on the infrastructure need (e.g., technology) and thus may not produce a comparable indicator of audit quality. In general, extant research indicates that engagement quality control reviews reduce audit risk through a variety of means by inducing engagement partners to plan higher levels of audit testing (Matsumura and Tucker 1995), and reduce the tendency to focus more on confirmatory evidence (Tan 1995). The scholarly research supports the use of PCAOB inspection results, enforcement actions and internal quality review as indicators of audit quality (Dee et al. 2011).

Audit Results (Outputs)

The final category of AQIs, Audit Results, includes financial statements, internal control, going concern, communications between auditors and audit committees, and enforcement and litigation indicators. Christensen et al. (2014) note that audit professionals focus more on the *outputs and opinion* section of the framework to measure audit quality, but that investors value the absence of negative outcomes related to the audit of financial statements as indicative of audit quality. Because audit outputs are publicly available, there is a robust stream of research on audit results (e.g., DeFond and Zhang 2014). We agree with the PCAOB regarding the importance of communication between the audit committee and

auditors in improving the audit quality. However, conducting an anonymous independent survey of audit committee members may appear to undermine the importance of an open and candid communicative relationship between the audit committee and the auditor, and thus may not produce measurable and meaningful indicator of audit quality.

Francis (2011) considers that the economic consequences of audit outcomes on companies and external users is another way to assess audit quality. However, he warns that the infrequent occurrences of some audit results (litigations, financial statement fraud, and internal control weaknesses), limit the generalizability of these indicators. He recommends that they be interpreted in context to provide meaningful information for audit quality assessment. Thus, the committee suggests that these indicators alone are not sufficient to ascertain audit quality and should be accompanied by engagement specific indicators, or a robust discourse about the firm and engagement factors surrounding the output. In sum, we believe that the proposed AQIs provide a comprehensive set of audit quality measures that are supported by empirical evidence.

SUGGESTIONS FOR ADDITIONAL AQIS NOT INCLUDED IN THE CONCEPT RELEASE

In this section, we present some of potential AQIs which are either not mentioned or are not specifically addressed in the Concept Release. These additional AQIs can have significant effects on audit quality.

Tedious Working Hours and Deadlines

One potential AQI not considered in the release is the time pressure faced by auditors. Academic research suggests that auditors report deadline constraints as a top impediment to audit quality (Persellin, Schmidt, and Wilkins 2014). Further, experimental and survey research indicates that workload pressures lead to dysfunctional behaviors and lower audit quality among individual auditors (e.g. Alderman and Dietrick 1982; DeZoort 1998) and that deadline pressure can affect audit quality at the audit engagement level (Glover, Hansen, and Seidel 2015). The committee suggests the work load of audit personnel (staff,

managers, partners) during the busy season (e.g., January 1 through March 31) be measured in terms of average billable hours per week and be used as an indicator of audit quality in the category of the audit process.

Information Technology (IT) Capital and Audit Quality

The extensive use of IT has significantly shaped the auditing profession and the way in which audits are conducted. Auditors have utilized IT in the administration of the audit process from planning to performance of audit procedures and reporting. Continuous auditing or auditing ‘through’ the computer had significant impacts on the practice of the audit, as computerized systems cannot be examined through conventional audit techniques (Banker, Change, and Kao 2002). This change in technical work, level of sophistication of continuous auditing and the extent to which auditors are using IT in the audit process can affect audit quality (Rezaee, Elam, Sharbatoghlie, and McMickle 2002). The use of IT, while enabling auditors to improve audit effectiveness and efficiency, increases the audit risk associated with cyberattacks. Thus, the extent of IT capability and investment as well as the use of IT specialists to assess the risk of cyber hacking and security breaches and its potential impacts on the audit risk and financial information risk are indications of audit quality.

Big Data and Audit Quality

Big Data is often referred to as electronic data and is the capability of accessing, analyzing, and assessing a huge amount of data and transforming them to information in a timely manner for decision making. Business organizations have recently used Big Data and analytic tools to achieve both their internal and external goals from internal decision supports to an integrated external marketing and production decisions. Several studies (e.g., Chen, Chiang, and Storey 2012; Cao, Chychyla, and Stewart 2015) provide an overview of Big Data and its implications in audit analytics. Brown-Liburd, Issa, and Lombardi (2015) discuss the challenges in incorporating Big Data and audit analytics in audit strategies and present the behavioral implications of Big Data for audit judgment that affect audit quality. The use of both Big Data and data analytics is changing the way auditors gather and assess audit evidence. This

affects audit planning, evidence-gathering, and reporting phases of an audit engagement. During the planning phase, auditors should make sure to adopt some of the new tools that enable them to take full advantage of Big Data and data analytics. Auditors should change their way of making decisions to take advantage of Big Data and audit analytics to improve audit quality. Thus, Big Data requires the use of sophisticated analytical tools to effectively audit evidence gathering procedures, audit risk assessment, and auditor judgment that may affect audit quality (Cao et al. 2015). It is expected that Big Data will grow bigger and thus, corporations and their auditors should proactively search for irregularities in Big Data and assess and manage their risk profile in assessing audit quality and thus the extent of the use of Big Data in audit analytics should be used as an indicator of audit quality.

Auditor Tenure, Retention, Resignation

There has been a great deal of debate as to whether the tenure of auditor can be a reliable AQI. Academic research has searched for evidence to understand whether the tenure of auditor impacts audit quality. In support of the notion that longer tenure reduces audit quality, researchers have found that longer tenure is associated with the reporting of higher discretionary accruals (Davis et al. 2009; Brooks et al. 2013), significantly higher likelihood of an unqualified opinion (Vanstraelen 2000) and reduced audit quality as measured by quality control reviews for a sample of not-for profit entities (Deis and Giroux 1992).

On the contrary, researchers have also documented that audit quality may be lower when the firm is audited by newly appointed auditors. There is evidence of significantly more “reporting failures” by auditors in the earlier years of auditor-client relationships (Geiger and Raghunandan 2002), higher unexpected accruals is higher in the early years of the audit-client relationship compared to medium auditor tenure (Johnson et al. 2002), a reduction in accrual measures with auditor tenure (Myers et al., 2003), higher likelihood of fraudulent financial reporting (Carcello and Nagy 2004). Bell et al. (2015) examine the actual audit process and find that audit quality is lower in the early years and increases with tenure for audits of public clients whereas audit quality decreases with tenure for audits of private companies. In light of these conflicting results in academic literature, there are very few concrete

recommendations that can be offered to the PCAOB at this time. The committee, however, believes that auditor tenure and change of audit firms are important factors that affect audit quality and they should be considered as indicators of audit quality. On one hand, research suggests that longer auditor tenure may reduce audit quality by compromising auditor independence. Alternatively, others argue that longer audit tenure enables the auditor to have a better understanding of the client work environment and enhances the auditor's ability to detect misstatements.

Concentration of and competition in public accounting firms

Regulators in the United States and many countries around the world are clearly interested in the possible effects of competition and concentration within audit markets in their countries, and the effects of these on audit quality and audit pricing. For example, passage of the Sarbanes-Oxley Act in 2002 mandated a study on consolidation and concentration of the audit market by the Government Accountability Office (2003). The GAO found no evidence of negative consequences as a result of high audit market concentration in the U.S. A follow-up study by the Government Accountability Office (2008) also struggled to find any compelling evidence regarding a correlation between market concentration and audit fees. Conversely, in a report commissioned by and prepared for the United Kingdom's Department of Trade and Industry and the Financial Reporting Council, Oxera (2006) provides evidence of a statistically significant link between market concentration and audit fees, consistent with standard oligopoly theory. Overall, various regulators are clearly concerned with the current state of competition and concentration in audit markets globally, but do not seem to be positioned to offer concrete guidance on how to make improvements to existing markets due to a lack of decisive and consistent evidence on the consequences of possible alternative actions.

Several academic studies provide theory and empirical evidence that strong competition in the market for audits is positively associated with audit quality (e.g. Chaney, Jeter, and Shaw 2003; Francis, Michas, and Seavey 2013). Conversely, other studies provide theory and evidence for the opposite point of view (Hackenbrack, Jensen, and Payne 2000; Kallapur, Sankaraguruswamy, and Zang 2010; Newton,

Wang, and Wilkins 2013). Chaney et al. (2003) present a model suggesting that competition improves the accuracy of client expectations of their auditor and reduces inefficiencies in the auditor-client matching process. Hackenbrack et al. (2000) conclude that required non-price competition in an audit market reduces the entry of lesser-qualified auditors into that market. In summary, the literature strongly suggests that the relationship between competition/concentration and audit quality and audit pricing are complex and in some cases situation-specific. Given all of this, there are very few concrete recommendations that can be offered to the PCAOB at this time due to the conflicting nature of the theory and conclusions reached in the literature. However, the committee believes that further mergers among top auditing firms may be detrimental to the healthy completion in the accounting profession that could have a negative impact on audit quality.

Human Capital and Audit Quality

Human capital can be considered along several dimensions such as experience, expertise, education, and qualification of audit personnel. The literature that examines human capital and audit quality is relatively sparse primarily due to the lack of archival data so the majority of the findings are from experimental studies. Experience can be client, general, industry, or task specific. Experience with auditing should lead to accumulation of audit knowledge that can be accessed and utilized to perform more effective audits (Bonner 1990). Libby and Frederick (1990) find evidence of experience leading to improved auditor knowledge, specifically knowledge relating to financial statement errors, and error occurrence rate. Bonner and Lewis (1990) suggest that general auditing experience might not accurately reflect an auditor's knowledge because it does not account for the nature and the number of tasks that the auditor has experienced and whether previous experiences can be informative for the current task.

Partner industry specialization is another important factor that improves audit quality (Bell, et al. 2015; Van Buuren and Causholli 2015). Using data from internal reviews from one of the Big N audit firms, Bell et al. (2015) find that audit quality is higher for audit engagements audited by partners that are considered industry specialists, relative to other engagements for audits of financial services industry. Using data from audit engagements performed in the Netherlands, Van Buuren and Causholli (2015) also

find strong evidence that partner industry specialization is associated with a greater likelihood of detecting misstatements, and partners with greater industry specialization are more likely to discover misstatements that are subjective in nature, and are more likely to issue modified opinions. Education, experience with the Big N, qualification, and continued education and training have also been shown to positively affect audit quality (Gul, Wu, and Yang 2013; Chen, Liu, and Chien 2009). Academic research in general supports the design and implementation of a dynamic and market-driven accounting and business curricula to educate and train the next generation of accountants with a keen focus on diversity and ethics in the accounting profession.

Audit Firm Business Model

The audit firm business model is crucial to understanding audit quality because firms hire and train audit personnel and provide an incentive structure for auditors through compensation and other organizational policies (Francis 2011). Firms also develop the audit programs and testing procedures that directs the evidence collection process, and have internal organizational structures to assure quality and compliance with their audit policies (Francis 2011). Academic research and anecdotal evidence suggests that audit efficiency and effectiveness can be significantly improved. Challenges to audit quality such as high turnover at the staff and management levels, unmanageable workload, and the use of less-trained and experienced audit personnel need to be addressed to minimize their negative impacts on audit quality (Rezaee 2009). The audit firm business model should create accountability by holding auditors accountable for their work, particularly when there is a strong evidence of sever audit deficiencies or compromised audit quality. This accountability can best be achieved when the engagement partner sign the public company financial statement audit under her/his name as it is customary in similar professions (Rezaee 2009).

DISCLOSURES OF AUDIT QUALITY INDICATORS (AQI)

One goal of developing audit quality indicators is to provide information to those concerned with the audit function and the financial reporting process. While the financial statement audit reduces information asymmetry between investors and management, audit quality indicators (AQIs) can reduce

information asymmetry between investors and auditors. To reduce information asymmetry and improve the market for high quality audits, it is therefore important that investors be given better information on the quality of audit services pertaining to the companies in which they are investing. Additional information that may reduce information asymmetry is any trends in AQIs over time. The CAQ notes that AQIs should be accompanied by proper context in order to be useful (CAQ 2014). Similarly, trends in AQIs would provide information about how firms address AQIs over time.

Using publicly available information, researchers have developed measures of audit quality with moderate success, and investors appear to use similar measures as audit quality heuristics. Using current measures, audit quality research has found strong support for audit quality difference between accounting firms (generally big versus non-big or industry specialist), and between audit firm offices (Francis 2004). These audit quality differences are notable and correspond to investors' perceptions of audit quality (Teoh and Wong 1993; Balsam, Krishnan, and Yang 2003). However, these measures pose at least two very serious limitations. First, many of these measures of audit quality use financial statement information, thereby making it difficult for users to distinguish between audit quality and management financial reporting quality. Second, these measures do not provide any audit-level measures that would allow investors to distinguish the quality of one audit from that of another within firms or offices.

Currently, investors perceive differences between some audit firms, but lack the ability to distinguish audit quality within these firms and groups of firms. For instance, investors respond more strongly to earnings surprises for companies audited by one of the big four audit firms (Teoh and Wong 1993). Providing investors better information regarding audit firm level quality would enable more precise evaluation of audit firms and reduce investors' reliance on overly simplified audit quality heuristics, such as whether the firm is one of the big four. More granular audit quality information is necessary because research has found differences in audit quality within audit firms. For instance, companies audited by industry specialist auditors have lower discretionary accruals (Balsam et al. 2003), as do larger companies within an audit office (Reynolds and Francis 2000). These results imply that within audit firms audit quality is not fixed and providing investors audit-level data such as the industry

expertise of the engagement team would greatly improve investor judgments regarding audit quality. Overall, the construction of AQIs should include measures that capture both audit firm-level data, as well as audit-level data.

Existing research reveals that voluntary reporting is often used to opportunistically disclose information that favors the party disclosing the information, which suggests that mandatory disclosure presents a more balanced picture. For instance, Zechman (2010) finds that management's voluntary disclosure of the financial consequences of leases is lower when they have incentives to conceal the use of off-balance-sheet financing. Also, within the context of voluntary management forecasts, Rogers and Stocken (2005) show that managers disclose opportunistically unless the market is able to detect their misreporting. For disclosure of AQIs, firms have very little chance of being held accountable for selective reporting of favorable AQIs, and thus there is an increased chance that firms will choose measures to report that cast them in the most favorable light. Given this opportunity for biased selection and disclosure of AQIs, which would reduce their value to investors, it is important to require at least a core set of AQIs across all companies. Overall, research suggests that mandatory disclosure of a selection of AQIs is the most appropriate and will help ensure that users of the financial statements and the audit report can evaluate audit quality independent of management's or the audit committee's incentives. Notably, this does not preclude management or the audit committee from voluntarily disclosing other AQIs that they feel are better measures of audit quality for the company. In this way a mandatory disclosure requirement will increase total AQI disclosures well above that required, whereas voluntary disclosure can have the effect of restricting the information that firms choose to disclose in any given period. Because such disclosures may set a precedent they will most likely continue such disclosure (Graham, Harvey, and Rajgopal 2005). Thus, research supports the notion that the use and disclosure of at least a subset of AQIs should be required across all companies.

Given the rather slow evolutionary of the AQI process from the 2008 recommendation of the Treasury report to the 2013-2014 Center for Audit Quality (CAQ) project and eventually the 2015 release of the PCAOB AQI Concept Release, lack of uniform and commonly accepted definition of the audit

quality, and the dynamic measures of audit quality, it may be more feasible that the PCAOB consider the implication of AQIs as a phased approach and scalable. In this phased approach, the appropriate AQIs should be initially communicated with the audit committee, be assessed, refined, and improved, and relevance and usefulness for external communication purposes should be evaluated by investors. This phased approach can be helpful in identifying a set of commonly accepted AQIs and the use of AQIs as a threshold in evaluating and improving audit quality. The phased approach is useful in focusing on the continuous improvements of AQIs and paying more attention to sustainable AQIs that are essential and adding value to the audit quality. This phased approach enables internal and voluntary communication of AQIs initially with the audit committee for a determinable pilot testing phase (one or two years) in the first stage, and then refinements and standardization of AQIs in the second stage for mandatory and external communication.

MOVING FORWARD WITH AQIS

The Auditing Standards Committee of the Auditing Section of the American Accounting Association (AAA) appreciates the opportunity to provide comments and suggestions on this important topic of AQIs, which affect the competency, integrity, image, reputation, public trust, and investor confidence in the financial reporting process and the auditing profession. Moving forward, the committee suggests that the PCAOB require implementation of these AQIs by member firms and conduct an experimentation or pilot testing of the AQIs Concept Release to refine and provide more focus to the listed 28 indicators, creating more manageable and measurable indicators in the suggested three categories of audit professionals, audit process, and audit results. We recommend that the next step in the process be to develop a threshold for the minimum acceptable level of audit quality by using a balanced scorecard to organize and record an AQI index in the three categories. In order to do so, AQIs must be measured in a systematic process similar to establishing a corporate governance index or corporate sustainability index (in three areas of environmental, social, and governance) and be monitored systematically by the PCAOB.

The committee suggests the PCAOB establish an “implementation or pilot testing” committee consisting of representatives for the PCAOB, the Center for Audit Quality, investors, audit committees, public accounting firms, and academia to:

1. Provide more focus to these suggested 28 AQIs by classifying those (e.g., items 1-19, PCAOB Concept Release, page 13) that can be reasonably measured, that are manageable, that are immediately implementable, that major auditing firms can agree to publish within a reasonable timeframe, and others (e.g., items 20-28) that require further study and pilot testing before being considered and perhaps being phased out.
2. Require that member firms in an experimental or pilot testing designate their AQIs as either strength or concern in all three categories of audit professionals, audit process, and audit results.
3. Assign a numerical value of “1” to strength, “0” to no indicator and “-1” to concern or use any other matrices to quantify AQIs for all three categories of audit professionals, audit process, and audit results.
4. Add up these numbers to create an acceptable threshold AQI in each category and an aggregate AQI threshold.
5. Evaluate member firms’ AQI scores against the determined AQI threshold and then publicly communicate this performance comparison to the users of AQIs (audit committee, investors, regulators, and auditing firms).
6. Use a balanced scorecard to organize and record the AQI index in the three categories of audit professionals, audit process, and audit results.

In summary, the committee supports the PCAOB’s initiatives in the development and public release of AQIs and suggests that the PCAOB work with major auditing firms in the further construction of AQI measurements. We would be glad to respond to any questions the PCAOB or its staff may have about our comments. Please direct any questions to Zabi Rezaee at the University of Memphis:

zrezaee@memphis.edu, 901-678-4652 or 901-237-4972.

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