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**STANDING ADVISORY GROUP MEETING**  
**DISCUSSION – AUDIT QUALITY INDICATORS**  
**MAY 15-16, 2013**

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This paper helps prepare SAG members for discussion of audit quality indicators (AQI), which the staff defines as measures that provide insight into financial statement audit quality. On May 15 and 16 we will seek SAG member input on the staff's tentative views, focusing on which measures might be most helpful to audit committees and investors when evaluating audit services at the engagement team or firm level.

This paper first describes the PCAOB's AQI project. We next present the staff's tentative views on a definition of audit quality, a framework for thinking about audit quality and examples of measures of audit quality. The staff has compiled an array of possible AQIs. We primarily based these on previous studies on audit quality and our experience. Finally, we describe the nature and scope of discussion for which we are seeking SAG input. We identify a series of questions on which we will seek SAG input. The questions are related to which AQIs and what other quality measures would be most helpful to audit committee members, as well as whether the staff's tentative definition and framework are helpful in thinking about AQIs. Appendix I explains components of our audit quality framework; Appendix II provides a description and additional details for each AQI; and Appendix III summarizes existing studies on audit quality.

**THE PCAOB'S PROJECT ON AUDIT QUALITY INDICATORS**

In November 2012, the Board identified a project to develop audit quality measures as a priority project for 2013, "with a longer-term goal of tracking such measures with respect to domestic global network firms and reporting collective measures over time."<sup>1</sup> Project goals are to:

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<sup>1</sup> Public Company Accounting Oversight Board Strategic Plan, 2012-2016, November 30, 2012, p.5.

This paper was developed by the staff of the Office of Research and Analysis as of May 1, 2013, to foster discussion among the members of the Standing Advisory Group. It is not a statement of the Board; nor does it necessarily reflect the views of the Board members or other staff.

- Inform PCAOB regulatory processes and policy making with additional insight into the status and trends of audit quality;
- Possibly provide audit committees, investors, management, audit firms, other regulators, and the public with AQIs, providing insight into audit quality for their decisions and policy-making; and,
- Provide firms with additional incentives to compete based on audit quality.

Reliable measures could assist PCAOB regulatory processes and policy making for improving audit quality and protecting investors. For example:

- Deficiencies in audit processes and input-related indicators<sup>2</sup> can point to the need for new standards or additional guidance as to existing standards in targeted areas;
- Deficiencies in audit results and output-related indicators<sup>3</sup> can inform the Board's policy-making;
- Relatively weak or superior performance for a particular firm can focus PCAOB inspection selections and target inspection work; and,
- AQI data can help inform firms' root cause analysis and remediation efforts, as well as PCAOB's evaluation of those processes.

Near-term (2013) project milestones include:

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<sup>2</sup> Two types of AQIs are described by the United States Department of the Treasury's Advisory Committee on the Auditing Profession as follows:

- Output-based – indicators determined by what the auditing firm has produced in terms of its audit work, such as number of frauds discovered and nature and reason for financial restatements related to time periods when the underlying reason for restatement occurred during the auditing firm's tenure as auditor for the client; and
- Input-based – indicators of what the auditing firm puts into its audit work to achieve a certain result, such as the auditing firm's processes and procedures used for detecting fraud, the average experience level of auditing firm staff on individual engagements, the average ratio of auditing firm professional staff to auditing firm partners on individual engagements, and annual staff retention.

See United States Department of the Treasury, *Advisory Committee on the Auditing Profession Final Report*, October 6, 2008, available online at: <http://www.treasury.gov/about/organizational-structure/offices/Documents/final-report.pdf>.

<sup>3</sup> *Ibid.*

- Survey existing studies on AQI and engage with constituents who are currently studying or implementing AQIs;
- Develop initial views about a definition of audit quality, a framework for thinking about audit quality, and examples of AQIs;
- Seek input on initial views from the SAG, Investor Advisory Group, other public forums, and in sessions with thought-leaders. Adjust the tentative thinking based on that input; and,
- If revised views on audit quality and AQI offer sufficient promise, expose initial views for public comment.

The nature and timing of longer-term steps will depend on the results of our initial efforts.

Much of the groundwork related to the AQI project, including tracking and analyzing certain metrics, is already underway through complementary and synergistic efforts by the Division of Registration and Inspections (“DRI”) and the Office of the Chief Auditor (“OCA”). DRI has initiated a broad framework for an Audit Quality Improvement Cycle that is designed to encourage effective root cause analysis and remediation efforts across areas of audit deficiencies, while OCA is in the process of developing a concept release to explore potential improvements to the existing quality control standards. In summary, the AQI project is in the development stage, and the staff expects to greatly benefit from discussing with the SAG about how AQIs could assist audit committee members.

## **AUDIT QUALITY DEFINITION, FRAMEWORK, AND INDICATORS**

The staff’s initial thinking is that an audit quality definition, framework, and related AQIs are an integrated construct. The tentative definition sets the overall scope when considering audit quality. The tentative framework developed by the staff defines the essential elements of audit quality that are candidates for measurement. The staff believes AQIs provide insight into the quality of performance related to elements of the framework. While it is possible to discuss potential AQIs without a tentative definition and framework, we believe they are helpful in ensuring that we consider possible AQIs in an organized and complete fashion.

### *Definition*

Over the years, many organizations have sought to define audit quality, with little consensus. While our initial purpose is to seek SAG member input on possible AQIs, we recognize the need to ground our discussion with the working definition of audit quality developed by the staff. For purposes of our discussion, we define audit quality 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.

In proposing a definition of audit quality, we seek to base it on concepts that are already widely accepted, rather than trying to break new conceptual ground.

We base our working definition on a common understanding of quality used in business endeavors: “meeting customer needs.” This requires that we first identify the customer. For purposes of discussion, we have leveraged the definition of a customer stated within Statement of Financial Accounting Concepts No. 8 as, “existing and potential investors, lenders, and other creditors.”<sup>4</sup> Note that the definition focuses on deliverables and results, rather than process or inputs. While focusing on process is possible (e.g., audit quality is equal to compliance with auditing standards), the staff believes it is more intuitive to define audit quality in terms of results.

We base the audit committees’, investors’, lenders’, and other creditors’ needs for audit services on the scope of deliverables currently required in audits of US public companies. As a result, our definition is practical, and may not meet all investors’, lenders’, and other creditors’ needs for audit services. We decided to include audit committee communications in the definition even though it is not a deliverable investors, lenders, or other creditors receive directly. Our logic is that audit committees advance investors’ interests by overseeing external auditors, and discussions with audit committees are critical to ensuring audit quality.

### *Audit Quality Framework*

As with our definition of audit quality, we developed our framework based on previous studies and existing standards. For example, at the most basic level, our framework includes three segments: audit inputs, processes, and results. We view these segments as intuitive and conceptually aligned with much of the existing work on audit quality completed by other organizations, identified in Appendix III.

Within each segment, our framework dives deeper, defining the essential elements of quality (Exhibit I). For example,

- The audit inputs segment includes six elements, each related to competent and talented people, who are essential for audit quality. Our input elements are generally consistent with studies by thought-leaders on audit quality, including the United States Department of the Treasury’s Advisory Committee on the Auditing Profession (“ACAP”), the International Auditing and Assurance Standards Board (“IAASB”), and the United Kingdom Financial Reporting Council

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<sup>4</sup> Statement of Financial Accounting Concepts No. 8.

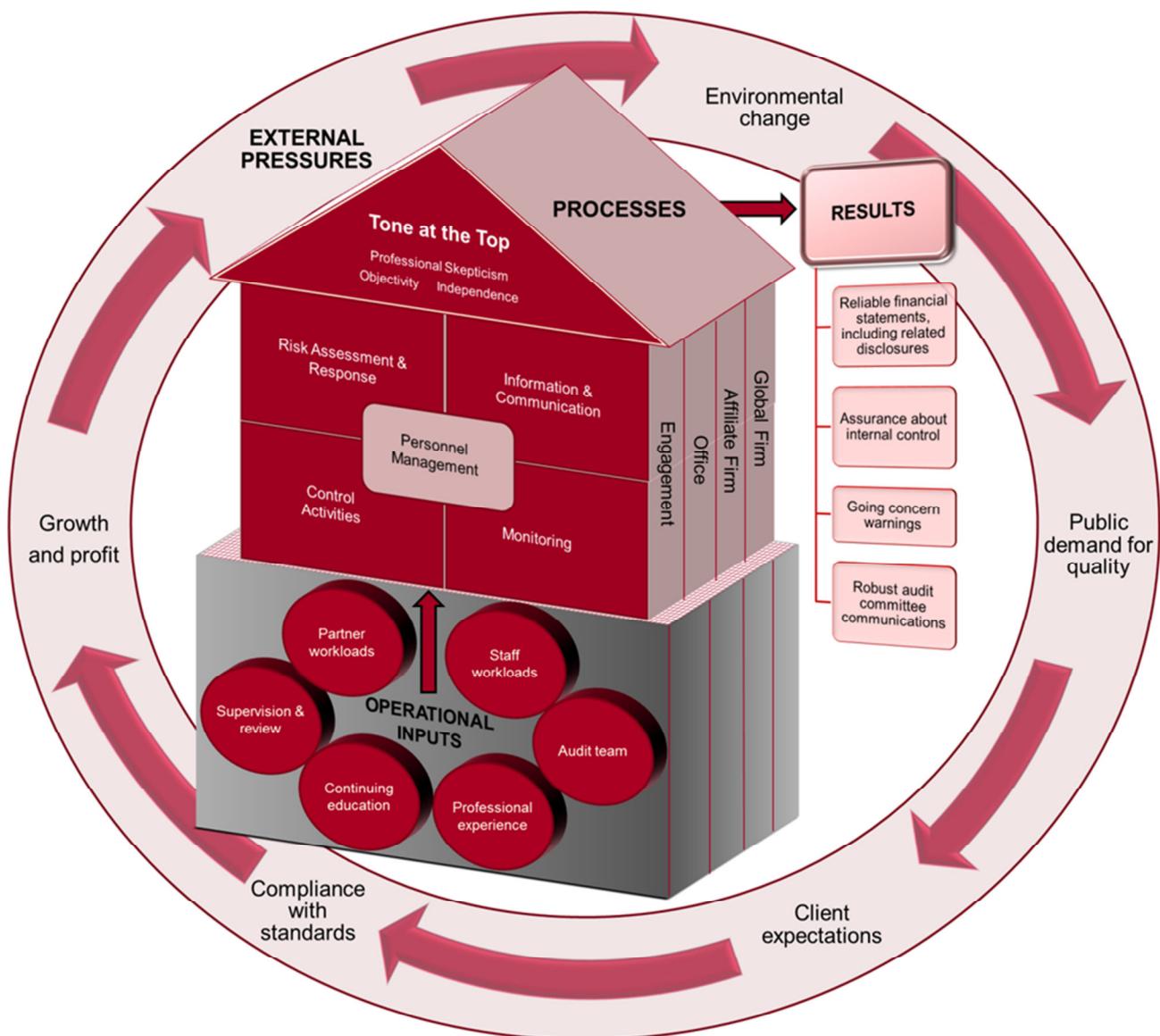
(“FRC”). The operational inputs in the foundation box in Exhibit 1 contain inputs that integrate various dimensions of the “people” factor.

- The audit processes segment also includes six elements. We identified these elements from the PCAOB’s Quality Control Standards and from the internal control framework developed by the Committee of Sponsoring Organizations of the Treadway Commission (“COSO”). Appendix I explains the elements of the processes segment.
- The audit results segment includes the deliverables that current standards require auditors to provide (as we previously discussed in our definition of audit quality).

Our framework also acknowledges that external pressures, such as rapid environmental change and pressures for growth and profit, influence audit quality. Despite their influence, we do not plan to discuss external pressures at this SAG meeting so that we can focus our time on AQIs.

Finally, the framework depicts that quality activities and results occur at several levels, including the engagement team, office or region, affiliate firm and global firm levels. Indeed, one of the complexities of deciding on AQIs is to decide on the appropriate “unit of analysis” (i.e., the level we are measuring).

**Exhibit 1: Audit Quality Framework**



*Audit Quality Indicators*

AQIs measure elements of the audit quality framework, which in turn provide insight into audit quality. We envision a portfolio of approximately 10 to 20 measures, large enough to reflect a balanced scorecard, but not so large that it is impractical. While at a particular point in time, one or more of the measures in the portfolio may be less relevant to audit quality, our hope is that we can gain insight into audit quality by reviewing the portfolio of measures, both over time and relative to other engagement teams, offices, or firms.

By definition, each of the measures is quantitative. It is difficult or impossible to perceive trends or relative performance absent quantitative scoring. Quantitative measures do not imply purely objective assessments, however. Indeed, some of the most important measures may be subjective. For example, we may measure the quality of communications with audit committees based on a survey of audit committee members. Yet, we will need to convert those subjective assessments into a score, say on a 1-to-5 scale, to develop a measure of communication quality.

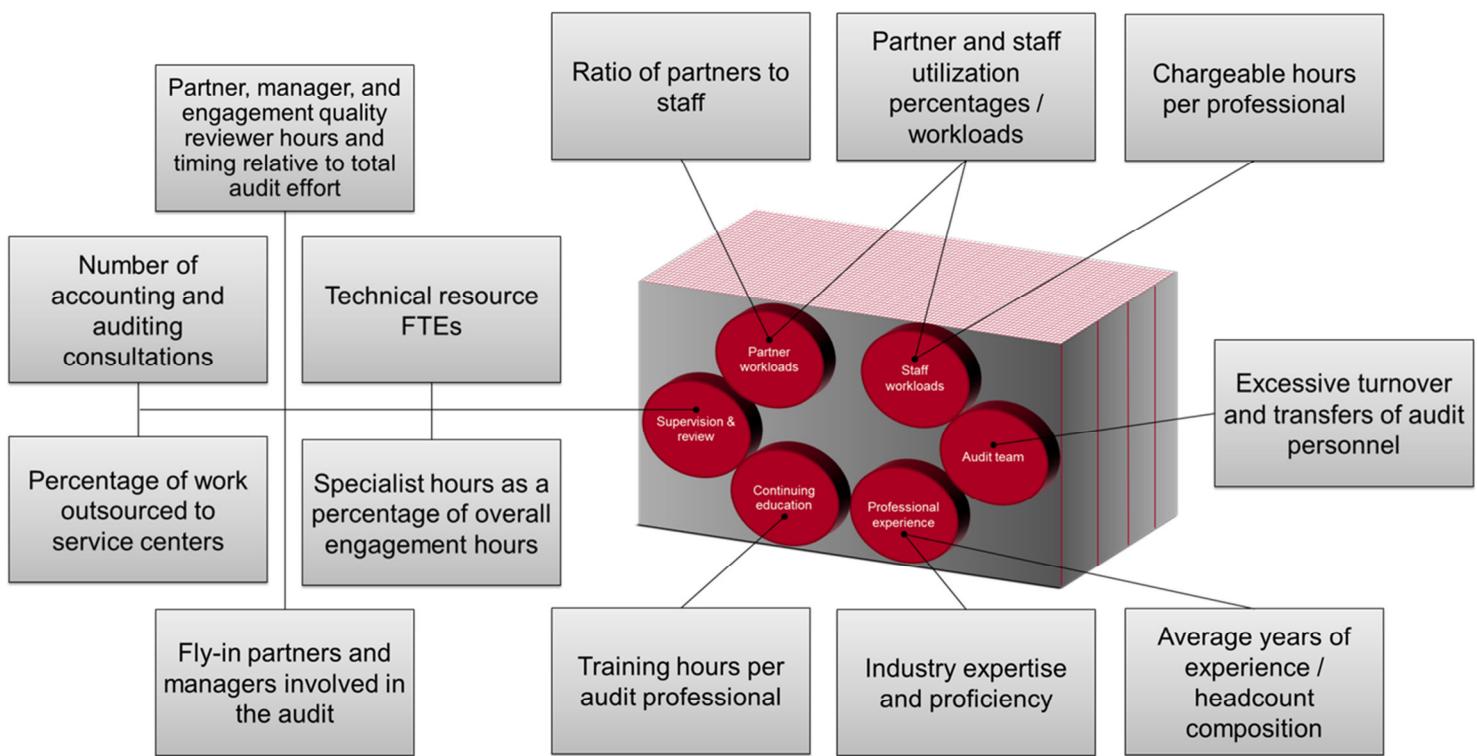
After determining a portfolio of promising measures, we expect to test those that relate to operational inputs and audit processes against audit results to help determine the level of relevance of the measures. Certain input and process measures may prove redundant with others, or may have a low correlation with high quality audit results. In addition, certain combinations of measures may be especially relevant to audit quality.

As mentioned previously, the staff has compiled an array of possible AQIs. We primarily based these on previous studies on audit quality and our experience. Exhibits 2, 3 and 4 present our measures arrayed around elements of our audit quality framework to which they relate. Appendix II provides additional explanation and context around each of the individual AQIs.

We do not presuppose that our portfolio of measures are complete or even include the most important indicators of quality. One purpose of the SAG discussion is to identify other possible measures.

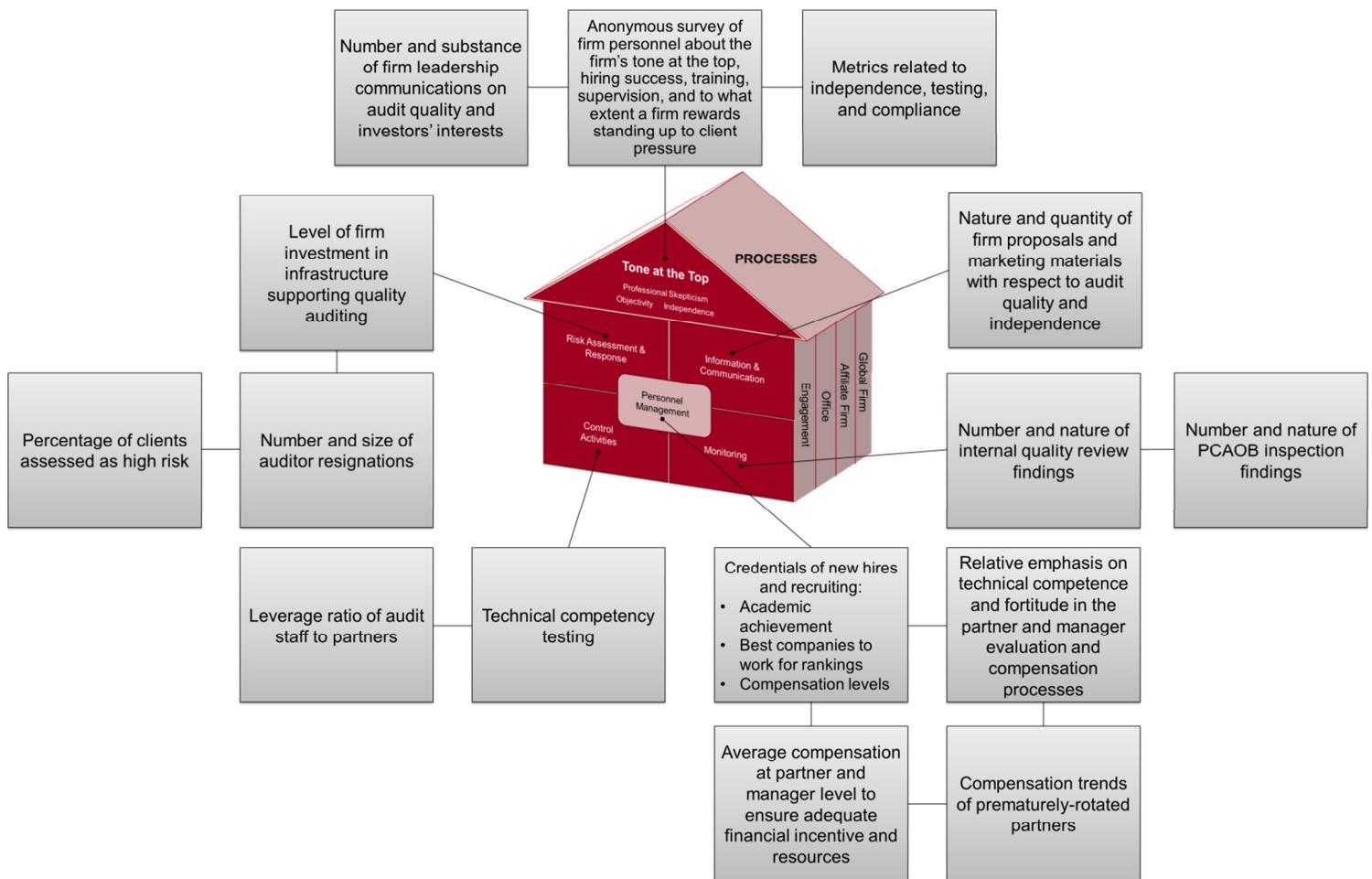
Although Exhibits 2, 3 and 4 present possible AQIs, they do not reflect the “unit of analysis” (i.e., whether the measures relate to the engagement team, an office or region, affiliate firm or global firm). Another purpose of the SAG discussion is to gauge the best unit of analysis.

**Exhibit 2: Possible Audit Quality Indicators Related To Operational Inputs**



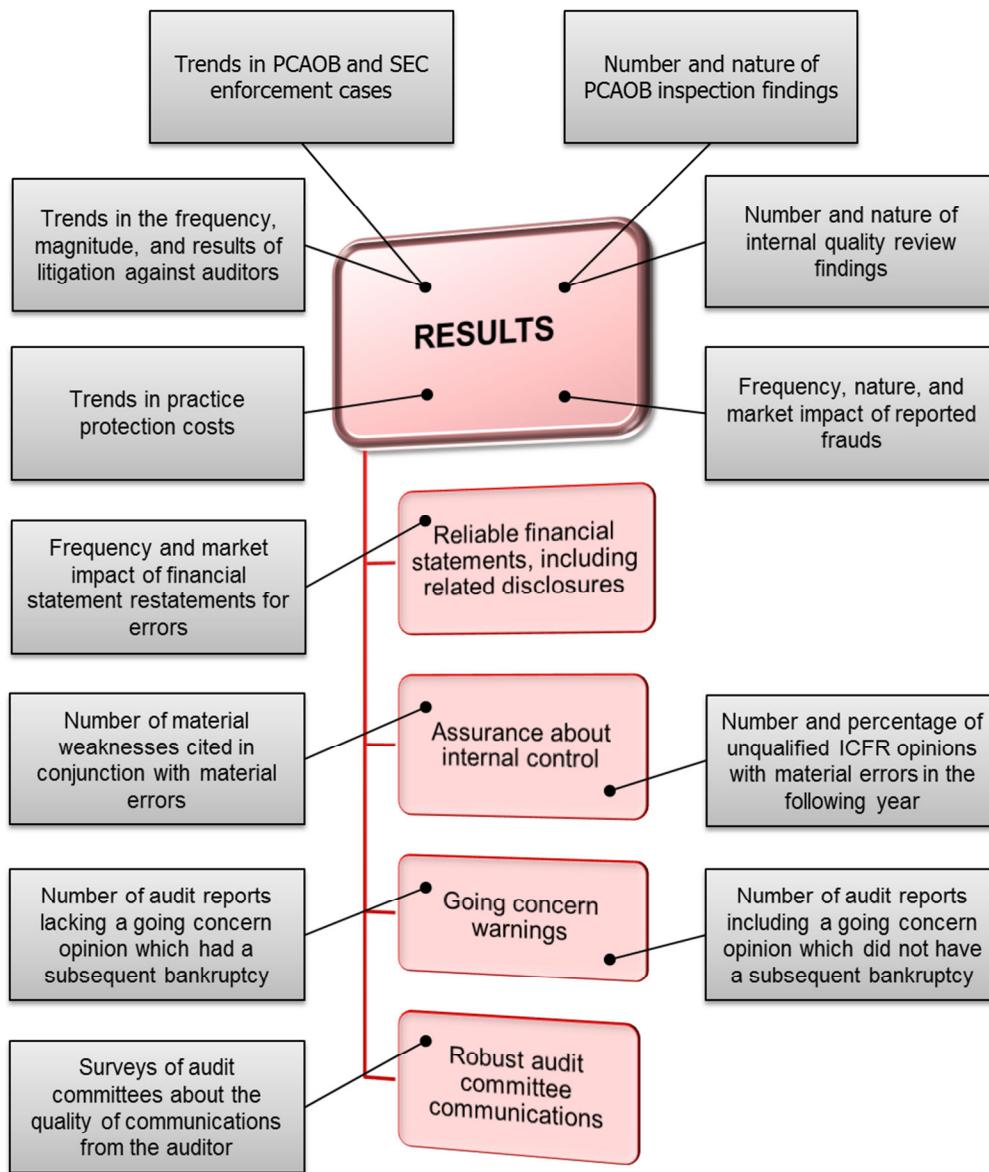
Refer to Appendix II for further explanation and context around each of the individual AQIs reflected above.

### Exhibit 3: Possible Audit Quality Indicators Related to the Audit Process



Refer to Appendix II for further explanation and context around each of the individual AQIs reflected above.

**Exhibit 4: Possible Audit Quality Indicators Related to Audit Results**



Refer to Appendix II for further explanation and context around each of the individual AQIs reflected above.

## **DISCUSSION OF AUDIT QUALITY INDICATORS AT THE MAY 2013 SAG MEETING**

We will discuss audit quality at the SAG meeting in three segments:

- Segment I: A 30-minute general session held on the first day, describing the PCAOB's AQI project and the goals and process for the breakout sessions.
- Segment II: 90-minute breakout sessions held on the first day.
- Segment III: A 45-minute general session held on the second day, summarizing the breakout sessions and providing an opportunity for SAG members to offer concluding remarks.

The Board's AQI project has broad objectives and must consider many matters. A partial list includes:

- Which AQIs would be most helpful to the PCAOB, audit committees, investors, and firms?
- Should we report AQIs at the engagement, office, affiliate firm, or global firm level?
- To what extent does the size of a firm affect AQIs?
- How should we test the relevance of the AQIs? Should testing include a trial field test with firms?
- How can we define AQIs to be comparable across teams, offices, and firms?
- Should some or all of the AQIs be private or public?
- Who should report the AQIs (firms, regulator, others)?
- How can users ensure the accuracy and comparability of the AQIs?
- What are costs of reporting the AQIs?
- What are the risks and unintended consequences of reporting the AQIs?
- What should be the timing and sequencing of reporting the AQIs?
- If the indicators are made public, how should we monitor the usefulness and impact of the indicators?

Despite the broad nature of the AQI project, we hope to focus our SAG discussion on a narrow, but critical set of questions to address in the breakout sessions:

1. Which of the AQIs identified by the staff would be most helpful to audit committees when overseeing external auditors? Which would be of modest or no help?
2. Which additional quality measures, other than those identified by the staff, would be helpful to audit committees and investors? Why do you believe they would be helpful?

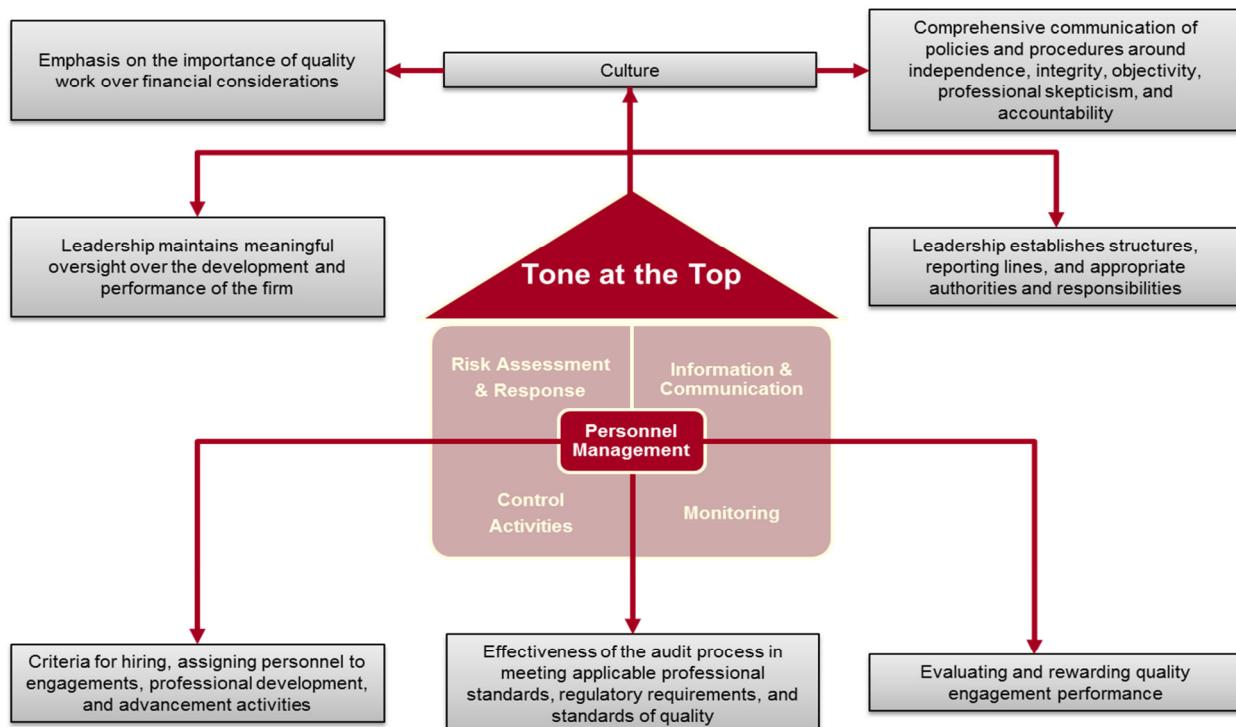
3. For each of the measures, what is the appropriate “unit of analysis” that would be most helpful for audit committee members and investors (i.e., should the measures apply at the engagement, office, affiliate firm, or global firm level)?
4. Are the staff’s audit quality definition and framework helpful in thinking about AQIs? If so, is the audit quality definition and framework acceptable, or how can we improve them?

Our discussion will focus on what might be possible and helpful in terms of AQIs. Therefore, we are proposing to restrict the SAG discussion to potential AQIs that hold promise. If we are able to identify a promising set of AQIs, the staff will address other issues, particularly related to costs and barriers, later.

## APPENDIX I – Audit Quality Framework Components

Exhibit A-1 presents additional details underlying a firm's tone at the top and its personnel management.

### Exhibit A-1: Tone at the Top and Personnel Management



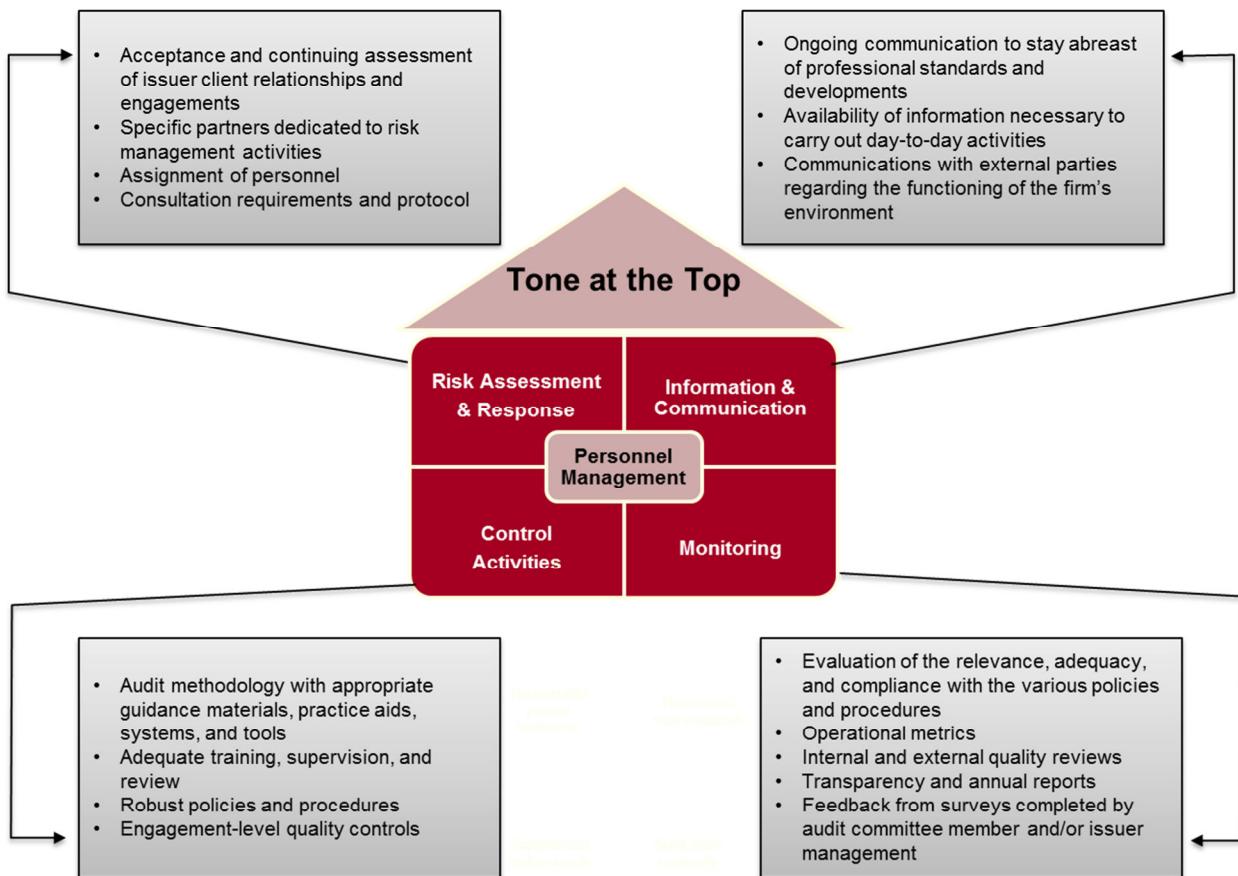
Tone at the top drives a firm's culture and personnel management and is quintessential to promoting audit quality. It forms the pinnacle of an audit quality paradigm and is rooted in professional skepticism, objectivity, and integrity; however, it also relies on the underlying processes and foundation of operational inputs for support. Paragraph .21 of PCAOB Quality Control Standards Section ("QC sec.") 20 states, "To provide reasonable assurance that the firm's quality control system achieves its objectives, appropriate consideration should be given to the assignment of quality control responsibilities within the firm, the means by which quality control policies and procedures are communicated, and the extent to which the policies and procedures and compliance therewith should be documented."

Human capital is one of an auditing firm's most important assets. Paragraphs .11 and .12 of QC Sec. 20 states, "A firm's quality control system depends heavily on the proficiency of its personnel...The quality of a firm's work ultimately depends on the

integrity, objectivity, intelligence, competence, experience, and motivation of personnel who perform, supervise, and review the work. Thus, a firm's personnel management policies and procedures factor into maintaining such quality."

## Exhibit A-2: Risk Assessment, Communication, Control Activities and Monitoring

Exhibit A-2 presents additional details on remaining components of the audit process: risk assessment and response; information and communication; control activities; and monitoring.



The structure reflected above is generally aligned with PCAOB Quality Control Standards and the COSO framework. Process indicators consist of the effectiveness of an audit firm's policies and procedures underlying personnel management, risk assessment, monitoring, control activities, and information and communication. Audit quality processes can be measured at the global firm, affiliate firm, office, or engagement level.

Paragraph .03 of QC Sec. 20 states that a firm has a responsibility to ensure that it has processes in place that "provide the firm with reasonable assurance that its personnel comply with applicable professional standards and the firm's standards of quality. The policies and procedures designed to implement the system in one segment of a firm's practice may be the same as, different from, or interrelated with the policies and

procedures designed for another segment, but the purpose of the system is the same for all segments of a firm's practice."

## **Appendix II – Descriptions of Audit Quality Indicators**

The audit quality framework is grounded in a foundation of operational inputs, which flow into a house-shaped hierarchy of various audit processes, with tone at the top at the apex. These operational inputs and processes ultimately affect the results investors demand. As one ascends the structure, the measurement of various processes may become more qualitative and subjective in nature.

Basic operational processes and inputs include, but are not limited to, monitoring of areas such as partner and staff workloads, supervision and review, and technical competence achieved by learning on-the-job, as well as through formal training. These operational processes and inputs are fundamental to supporting the structure of remaining audit quality processes such as control activities, information and communication, and risk assessment and response.

For example, if partner and staff have excessive workloads, and thus do not have sufficient time to execute and/or supervise and review appropriate audit procedures, the processes higher up in the hierarchy, such as a firm's audit methodology or risk response, may not be sufficient to address all audit risks. Similarly, if staff lack sufficient experience and/or technical training, they may not have the technical competence necessary to identify all potential audit risks.

Presented on the following pages are descriptions of each of the AQIs around operational inputs, processes, and results previously highlighted in Exhibits 2, 3, and 4.

<b>OPERATIONAL INPUTS (PEOPLE)</b>	
<b>1</b>	<b>Ratio of partners to staff</b>
	Measures the number of staff managed per partner. If partners have excessive responsibility for the oversight of staff, they may not have sufficient time to execute and/or supervise and review appropriate audit procedures, thereby possibly affecting audit quality.
<b>2</b>	<b>Partner and staff utilization percentages / workloads</b>
	Measures the number of hours that partners and staff work beyond a customary workload. If partners and staff have excessive workloads, they may not have sufficient time to execute and/or supervise and review appropriate audit procedures, thereby possibly affecting audit quality.
<b>3</b>	<b>Chargeable hours per professional</b>
	Measures the number of hours that partners and staff devote to client responsibilities. If partners and staff have excessive client responsibilities, they may not have sufficient time to execute and/or supervise and review appropriate audit procedures, thereby possibly affecting audit quality.
<b>4</b>	<b>Excessive turnover and transfers of audit personnel</b>
	Measures the amount of turnover and transfers of audit personnel. While some attrition is expected, an excessive amount of audit staff turnover may adversely affect audit quality.
<b>5</b>	<b>Average years of experience / headcount composition</b>
	Measures the average years of experience of audit professionals, as well as the headcount composition (i.e., number and percentage of associates, senior associates, managers, senior managers, and partners). Such an indicator could possibly provide a method into objectively evaluating the knowledge and competency of an engagement team, an office, and/or a firm, and its effect on audit quality.
<b>6</b>	<b>Industry expertise and proficiency</b>
	Measures an audit professional's knowledge within a particular industry. This particular measure could examine the substance and amount of specific industry training received by an audit professional and/or the years of experience devoted to a particular industry by an audit professional. Academic research in the area of auditor industry experience has been found to be positively related to the quality of audits.
<b>7</b>	<b>Training hours per audit professional</b>
	Measures the amount of formal training hours received by each audit professional. Sufficient formal training on accounting and auditing topics is important so that audit professionals are equipped with the requisite skills and knowledge to execute a quality audit.
<b>8</b>	<b>Number of accounting and auditing consultations</b>

<b>OPERATIONAL INPUTS (PEOPLE)</b>	
	Measures the number of accounting and auditing consultations at the engagement, office, and/or firm level. While such a measure is typically dependent on an individual engagement's degree of difficulty, a higher number of consultations may indicate a firm is actively promoting consultation and collaboration with others for the benefit of audit quality.
9	<b>Percentage of work outsourced to service centers</b>
	Measures the percentage of work, in terms of total audit hours, that is outsourced to service centers. Over the past several years, large public accounting firms have begun using offshore entities to perform certain audit procedures for US-based clients. While limited academic research has highlighted both advantages and disadvantages of outsourced work, it may have an effect on audit quality.
10	<b>Technical resource FTEs</b>
	Measures the number of full-time equivalent ("FTE") audit professionals devoted to serving as technical resources. This measurement can be useful for understanding whether a firm sufficiently promotes consultation and collaboration with others, and its overall commitment to a competent and quality audit.
11	<b>Specialist hours as a percentage of overall engagement hours</b>
	Measures the percentage of specialist hours as a percentage of overall engagement hours. This measurement can be useful for understanding whether a firm sufficiently promotes consultation and collaboration with others for the benefit of audit quality.
12	<b>Fly-in partners and managers involved in the audit</b>
	Measures the proximity of partners and managers to others involved in the audit. If partners and managers are geographically removed from a particular client, they may not have a sufficient presence to supervise and review appropriate audit procedures, thereby possibly affecting audit quality.
13	<b>Partner, manager, engagement quality reviewer hours and timing relative to total audit effort</b>
	Captures the relative involvement, as measured by hours and the timing of these hours, that a partner, manager, and engagement quality reviewer represent in comparison to total audit hours. If partners, managers, and engagement quality reviewers have excessive workloads, they may not devote sufficient time to execute and/or supervise and review appropriate audit procedures for a particular issuer audit, thereby possibly affecting audit quality.

<b>PROCESSES</b>	
1	<b>Number and substance of firm leadership communications on audit quality and investors' interests</b>

<b>PROCESSES</b>	
	Communicating a firm's commitment to quality, integrity, objectivity, independence, professional skepticism, and public accountability is important. A measure could be developed to track the number and substance of a firm's leadership communications on audit quality and investors' interests that could give insight into a firm's tone at the top and its overall commitment to audit quality.
<b>2</b>	<b>Anonymous survey of firm personnel about the firm's tone at the top, hiring success, training, supervision, and to what extent a firm rewards standing up to client pressure</b>
	Consider developing an anonymous survey that could be randomly sent to various firm personnel at different levels. The survey could solicit both objective and subjective insights by asking participants to rank and comment about their particular firm's tone at the top, hiring process, training, supervision, and to what extent a firm rewards standing up to client pressure. Objective results of the survey could be useful for making comparisons amongst firms and evaluating any correlations with audit quality.
<b>3</b>	<b>Metrics related to independence, testing, and compliance</b>
	Consider developing metrics to measure compliance with independence rules and standards. Such metrics may be helpful in assessing a firm's overall commitment to maintaining independence and its possible effect on audit quality.
<b>4</b>	<b>Nature and quantity of firm proposals and marketing materials with respect to audit quality and independence</b>
	Commercial considerations can sometimes influence audit performance. While marketing is key to any successful business, a firm's assurance marketing materials could be examined for language that may be at odds with audit quality and independence (e.g., "trusted business partner," etc.)
<b>5</b>	<b>Number and nature of internal quality review findings</b>
	The number and nature of findings identified through a firm's internal quality review program may be an indicator of audit quality. This indicator, over time, may provide comparative information to assess the direction of a firm's efforts toward improving audit quality. Additionally, having many internal findings, along with appropriate remediation, might indicate a thorough approach to internal quality review at a firm.
<b>6</b>	<b>Number and nature of PCAOB inspection findings</b>
	The number and nature of findings identified through PCAOB inspections may be an indicator of audit quality. This indicator, over time, may provide comparative information to assess the direction of a firm's efforts toward improving audit quality.
<b>7</b>	<b>Average compensation at partner and manager level to ensure adequate financial incentive and resources</b>
	Average compensation at the partner and manager level could serve as a useful data point that could be assessed for possible correlations with audit quality. Partners and managers that are well-compensated through strong financial incentives may be more apt to raise issues on a particular audit, thereby possibly improving audit quality.

<b>PROCESSES</b>	
<b>8</b>	<b>Compensation trends of prematurely-rotated partners</b>
	Prematurely-rotated partners are those partners that are requested to be removed by a client, its audit committee, and/or the firm's leadership. Depending on the reason for removal, tracking such compensation trends for these partners could be helpful in assessing a firm's commitment to audit quality.
<b>9</b>	<b>Relative emphasis on technical competence and fortitude in the partner and manager evaluation and compensation processes</b>
	The relative emphasis on technical competence and fortitude in the partner and manager evaluation and compensation process could serve as a useful data point that could be assessed for possible correlations with audit quality. Partners and managers that are incentivized for technical competence and fortitude may be more apt to raise issues on a particular audit, thereby possibly improving audit quality.
<b>10</b>	<b>Credentials of new hires and recruiting: academic achievement; best companies to work for rankings; compensation levels</b>
	Credentials of new hires could be measured in terms of the number of accounting and/or auditing units completed at the undergraduate and graduate level. Compensation levels and whether a firm is included in best companies to work for rankings could both serve as useful data points that could be assessed for possible correlations with a firm's ability to attract and retain top talent, which may have a positive correlation with audit quality.
<b>11</b>	<b>Technical competency testing</b>
	Technical competency is an important factor in audit quality. Consider creating a uniform and standardized audit test that partners and staff of each firm may be required to take on a periodic basis. Results from this test could be useful in assessing and refining a firm's audit quality initiatives.
<b>12</b>	<b>Leverage ratio of audit staff to partners</b>
	Measures the ratio of audit staff to partners. A higher ratio may indicate partners have excessive responsibility for the oversight of staff, which may indicate insufficient time to execute and/or supervise and review appropriate audit procedures, thereby possibly affecting audit quality.
<b>13</b>	<b>Number and size of auditor resignations</b>
	Measures the number and substance of auditor resignations, which may provide insight into a firm's judgment around the quality of its issuer portfolio. In addition, such an indicator may demonstrate a firm's fortitude and how much emphasis it places on audit quality rather than commercial considerations.
<b>14</b>	<b>Percentage of clients assessed as high risk</b>
	Measures the overall percentage of a firm's clients that were determined to be high risk, which may provide insight into a firm's judgment around the quality of its issuer portfolio. Such an indicator may demonstrate the degree of emphasis a firm places on commercial considerations as compared to audit quality.
<b>15</b>	<b>Level of firm investment in infrastructure supporting quality auditing</b>

## PROCESSES

Measures the amount of spending earmarked toward areas such as technology and systems, training and guidance, audit methodology and risk management tools, and technical consulting resources. A firm's conscientious investment in such infrastructure should theoretically help to improve audit quality.

<b>RESULTS</b>	
<b>1</b>	<b>Frequency and market impact of financial statement restatements for errors</b>
	<p>Restatements that correct misstatements are a relatively solid indicator of audit quality. Restatement measures of interest might be the frequency of restatements, length of restated periods, and materiality of restatements (restatements due to changes in accounting principles would be excluded).</p> <p>Frequency of restatements may indicate problems with audit quality; however, a user of financial statements needs to be aware of other factors that may affect the interpretation of this indicator such as the complexity of financial statements, among many other factors. Length of restated periods, as well as the materiality of restatements, indicates how promptly misstatements are uncovered and corrected.</p> <p>Restatement materiality can both be measured and evaluated in terms of the magnitude of the restatement (often measured by the effect on the issuer income) and the market reaction. The staff believes that the market reaction of restatements is a more relevant factor to objectively measure materiality.</p>
<b>2</b>	<b>Number and percentage of unqualified ICFR opinions with material errors in the following year</b>
	Measures the number and percentage of unqualified ICFR opinions with material errors reported in the following year. The failure of an auditor to timely identify material weaknesses prior to a restatement may suggest poor audit quality.
<b>3</b>	<b>Number of material weaknesses cited in conjunction with material errors</b>
	Measures the number of material weaknesses cited in conjunction with material errors. The number and nature of material weaknesses pertaining to ICFR identified by the auditor prior to a restatement may not only be an indicator of a quality audit, but also may indicate future financial reporting problems for the issuer.
<b>4</b>	<b>Number of audit reports including a going concern opinion which did not have a subsequent bankruptcy</b>
	The auditor is required to evaluate the ability of the company to continue as a going concern for the next 12-month period. To relate this measure to audit quality and the ability of the auditor to predict the financial situation of the issuer, it needs to be cross-referenced with subsequent performance (e.g., bankruptcies). This indicator could help in identifying instances of an auditor who provided an inappropriate going concern warning to investors.
<b>5</b>	<b>Number of audit reports lacking a going concern opinion which had a subsequent bankruptcy</b>

<b>RESULTS</b>	
	The auditor is required to evaluate the ability of the company to continue as a going concern for the next 12-month period. To relate this measure to audit quality and the ability of the auditor to predict the financial situation of the issuer, it needs to be cross-referenced with subsequent performance (e.g., bankruptcies). When evaluating whether a Type II error occurred (i.e., the auditor did not issue a going concern opinion and the issuer subsequently declared bankruptcy), consideration should be given as to whether the bankruptcy was realistically predictable.
6	<b>Surveys of audit committees about the quality of communications from the auditor</b>
	Consider administering a survey of audit committee members. The survey could solicit both objective and subjective insights by requesting participants to rank and comment about their particular auditor's quality of communications. Objective results of the survey could be useful for making comparisons amongst firms and evaluating any correlations with audit quality.
7	<b>Trends in practice protection costs</b>
	A firm that is more frequently sued may incur greater costs defending itself against litigation. Trends in practice protection costs may therefore provide insightful quantitative information about a firm's general state of audit quality.
8	<b>Trends in the frequency, magnitude, and results of litigation against auditors</b>
	Trends in the frequency, magnitude, and results of litigation against auditors may provide objective and quantitative information about the risk profile of a firm's issuer portfolio. These trends may also serve to highlight the direction of a firm's audit quality initiatives.
9	<b>Frequency, nature, and market impact of reported frauds</b>
	Trends in the frequency, nature, and market impact of reported frauds may provide insights into the risk profile of a firm's issuer portfolio and/or its consideration of fraud in an audit. Trends in frauds identified by the auditor may also offer evidence of the firm's commitment to audit quality.
10	<b>Number and nature of internal quality review findings</b>
	The number and nature of findings identified through a firm's internal quality review may be an indicator of audit quality. This indicator, over time, may provide comparative information to assess the direction of a firm's efforts toward improving audit quality. Additionally, having many internal findings, along with appropriate remediation, might indicate a thorough approach to internal quality review at a firm.
11	<b>Number and nature of PCAOB inspection findings</b>
	The number and nature of findings identified through PCAOB inspections may be an indicator of audit quality. This indicator, over time, may provide comparative information to assess the direction of a firm's efforts toward improving audit quality.
12	<b>Trends in PCAOB and SEC enforcement actions</b>

## RESULTS

The PCAOB has authority to investigate and discipline registered public accounting firms and persons associated with those firms for noncompliance with the Sarbanes-Oxley Act of 2002, the rules of the PCAOB and the Securities and Exchange Commission, and other laws, rules, and professional standards governing the audits of public companies, brokers, and dealers. When violations are found, the PCAOB can impose appropriate sanctions. Trends in PCAOB and SEC enforcement actions against a particular firm may help to underscore either improvements and/or deterioration in its audit quality.

### **APPENDIX III – Summary of Existing Work on Audit Quality Indicators<sup>1</sup>**

In developing our proposal, we first surveyed existing work specifically related to AQIs by other organizations, which is summarized below.

#### United States Department of the Treasury's Advisory Committee on the Auditing Profession ("ACAP")

The ACAP report “discussed enhancing audit quality as a key element in improving the viability and resilience of the auditing profession.”<sup>2</sup> Included in its report, ACAP set out thirty-one recommendations in the areas of human capital, firm structure and finances, and concentration and competition.<sup>3</sup>

The Committee “learned that auditing firms provide limited information on audit quality to the public, particularly to audit committees and investors.”<sup>4</sup> ACAP considered information on the selection or renewal of an auditing firm, including output and input-based indicators. The Committee recommended that the PCAOB, in consultation with other parties, “determine the feasibility of developing key indicators of audit quality and effectiveness and requiring audit firms to publicly disclose these indicators.”<sup>5</sup> ACAP noted that, assuming development and disclosure of indicators of audit quality are feasible, it would then recommend that the PCAOB monitor these indicators.<sup>6</sup>

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<sup>1</sup> We acknowledge the extensive work of the IAASB, which provided a detailed summary of prior research, thought-leadership, and policy analysis work on audit quality by various parties. This IAASB summary, which can be found in Appendix 1 of Agenda Item 12-A of the IAASB Main Agenda (December 2009) entitled, “Audit Quality – Preliminary Matters for Consideration (available online at: [www.ifac.org/sites/default/files/meetings/files/5127.pdf](http://www.ifac.org/sites/default/files/meetings/files/5127.pdf)), was instrumental in the development of the survey presented herein.

<sup>2</sup> United States Department of the Treasury, *Advisory Committee on the Auditing Profession Final Report*, October 6, 2008, available online at: <http://www.treasury.gov/about/organizational-structure/offices/Documents/final-report.pdf>.

<sup>3</sup> *Ibid.*

<sup>4</sup> *Ibid.*

<sup>5</sup> *Ibid.*

<sup>6</sup> *Ibid.*

In terms of promoting competition, “the Committee believes that requiring audit firms to disclose indicators of audit quality may enhance not only the quality of audits provided by such firms, but also the ability of smaller audit firms to compete with larger audit firms, auditor choice, shareholder decision-making related to ratification of auditor selection, and PCAOB oversight of registered audit firms.”<sup>7</sup>

The ACAP also recommended that beginning in 2011, the largest audit firms be required to file annual audited financial statements with the PCAOB on a confidential basis.<sup>8</sup> However, a number of members of the ACAP committee including its co-chairs, Arthur Levitt and Donald Nicolaisen urged that the financial statements should be made publicly “...available, including to audit committees and the investing public.”<sup>9</sup>

#### PCAOB Standing Advisory Group (“SAG”)

At the October 22-23, 2008 SAG meeting, SAG members discussed one of the recommendations of the Department of the Treasury's ACAP report related to assessing the feasibility of developing key indicators of audit quality and effectiveness.<sup>10</sup> At both plenary sessions and breakout sessions, SAG members provided the PCAOB with valuable input about how to possibly address the ACAP recommendation. The discussions primarily centered around defining audit quality, the feasibility of developing key indicators of audit quality, and whether audit firms should publicly disclose the results of those indicators. A summary of the feedback received from the SAG meeting is highlighted below:

- A definition of audit quality would be useful, but not required, and should not be an impediment to this undertaking;
- A number of SAG members recommended a mix of both qualitative and quantitative input-based and output-based indicators at both the firm and

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<sup>7</sup> United States Department of the Treasury, *Advisory Committee on the Auditing Profession Final Report*, October 6, 2008, available online at: <http://www.treasury.gov/about/organizational-structure/offices/Documents/final-report.pdf>.

<sup>8</sup> *Ibid.*

<sup>9</sup> PCAOB, Investor Advisory Group, Subcommittee on Global Networks and Audit Firm Governance, March 16, 2011, available online at: [http://pcaobus.org/News/Events/Pages/03162011\\_IAGMeeting.aspx](http://pcaobus.org/News/Events/Pages/03162011_IAGMeeting.aspx).

<sup>10</sup> PCAOB, Standing Advisory Group Meeting, "Panel Discussion – Feasibility of Audit Quality Indicators," October 22-23, 2008, available online at [http://pcaobus.org/News/Events/Pages/10222008\\_SAGMeeting.aspx](http://pcaobus.org/News/Events/Pages/10222008_SAGMeeting.aspx).

engagement level; however, it was suggested that the PCAOB identify the specific indicators given our unique position;

- The merits of both prescriptive and discretionary disclosure models were discussed; however, no consensus was reached;
- Some concern was expressed about scalability, unintended consequences, and cost considerations; however, those concerns were tempered by the view that there is value to having general indicators that would promote audit quality (recognizing the challenges around the precise measurement of audit quality).

In response to issues identified during the inspection of accounting firms, lessons learned from the economic crisis, and comments received from members of the SAG, the PCAOB is currently developing a concept release to explore potential improvements to the existing quality control standards, including the SEC Practice Section requirements.<sup>11</sup>

#### PCAOB Investor Advisory Group (“IAG”)

The IAG’s Subcommittee on Global Networks and Audit Firm Governance indicated that, “[i]t is difficult at best for members of audit committees to obtain information regarding the global networks of firms and how they manage their audits and audit quality. The firms do not publish any key indicators of audit quality that investors could use to compare the quality of the work of one firm with another.”<sup>12</sup>

The IAG recommended that the firms produce an annual report filed with the PCAOB that is made public and certified by the executives of the firm and includes the various items recommended by the ACAP report (e.g., legal and network structure, governance description, financial information, etc.) and specifically, key quality control factors established by the PCAOB.<sup>13</sup> The IAG also believed the report should include the annual financial statements of the audit firm prepared in accordance with generally accepted accounting principles (“GAAP”).<sup>14</sup>

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<sup>11</sup> PCAOB, Office of the Chief Auditor, Standard-Setting Agenda, March 31, 2013, available online at: <http://pcaobus.org/Standards/Pages/default.aspx>.

<sup>12</sup> PCAOB, Investor Advisory Group, Subcommittee on Global Networks and Audit Firm Governance, March 16, 2011, available online at: [http://pcaobus.org/News/Events/Pages/03162011\\_IAGMeeting.aspx](http://pcaobus.org/News/Events/Pages/03162011_IAGMeeting.aspx).

<sup>13</sup> *Ibid.*

<sup>14</sup> *Ibid.*

International Auditing and Assurance Standards Board's ("IAASB") Audit Quality Framework

In the early stages of the IAASB's audit quality project, they noted that "there have been a number of attempts to define audit quality in the past and questions continue to be asked as to whether it can be quantified. None of this activity has resulted in a definition that has achieved universal recognition and acceptance..."<sup>15</sup> Due to the challenges in defining audit quality, the IAASB embarked on a project to develop an international framework that describes the elements of audit quality.<sup>16</sup> This project to develop an audit quality framework ("Framework") outlined the input and output factors at the engagement, audit firm, and national levels.<sup>17</sup> The Framework also demonstrated the importance of appropriate interactions between stakeholders and the importance of various contextual factors.<sup>18</sup>

In the IAASB's view, a high quality audit has been achieved when the auditor's opinion on the financial statements can be relied upon as it was based on sufficient appropriate audit evidence obtained by an engagement team that<sup>19</sup>:

- Exhibited appropriate values, ethics and attitudes;
- Was sufficiently knowledgeable and experienced and had sufficient time allocated to perform the audit work;
- Applied a rigorous audit process and quality control procedures;
- Provided valuable and timely reports; and,
- Interacted appropriately with a variety of different stakeholders.

Additionally, the report described various input and output factors at the engagement level, firm level, and national level in the following areas<sup>20</sup>:

- Values, ethics and attitudes;

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<sup>15</sup> IAASB, *Audit Quality: An International Framework* (August 2011), available online at <http://www.ifac.org/sites/default/files/meetings/files/20111205-IAASB-Agenda Item 6-F-Revised Draft AQ Fwk Paper.pdf>.

<sup>16</sup> *Ibid.*

<sup>17</sup> *Ibid.*

<sup>18</sup> *Ibid.*

<sup>19</sup> *Ibid.*

<sup>20</sup> *Ibid.*

- Knowledge, experience, and time; and,
- Audit process and quality control procedures.

In addition, in the appendices, the IAASB identified areas to explore that may benefit audit quality on a global basis, and discussed the level of importance of key factors to management, the audit committee, and investors.

#### United Kingdom (“U.K.”) Financial Reporting Council’s (“FRC”) Audit Quality Framework

The FRC noted there is no single agreed-upon definition of audit quality.<sup>21</sup> The FRC identified the following five main drivers along with corresponding indicators that, in the FRC’s view, are central to achieving a high quality audit<sup>22</sup>:

- The culture within an audit firm;
- The skills and personal qualities of audit partners and staff;
- The effectiveness of the audit process;
- The reliability and usefulness of audit reporting; and,
- Factors outside the control of the auditors (e.g., corporate governance, audit committee effectiveness, reporting deadlines, etc.)

In addition, the FRC also identified possible threats that may weaken each of the aforementioned drivers.

#### European Union’s (“EU”) Eighth Directive’s Transparency Report

Article 40 of the EU’s Eighth Directive provides that auditors of public entities publish, on their websites, an annual Transparency Report that includes at least the following information<sup>23</sup>:

- Legal structure and ownership;
- Association with any network, and its structural arrangements;

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<sup>21</sup> Financial Reporting Council, *The Audit Quality Framework* (February 2008), available online at [http://frc.org.uk/Our-Work/Publications/FRC-Board/The-Audit-Quality-Framework-\(1\).aspx](http://frc.org.uk/Our-Work/Publications/FRC-Board/The-Audit-Quality-Framework-(1).aspx).

<sup>22</sup> *Ibid.*

<sup>23</sup> See European Union, *Eighth Company Law Directive 2006/43/EC, Article 40, “Transparency Report,”* available online at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32006L0043:en:NOT>.

- Governance structure;
- Internal quality control system and leadership statement on the effectiveness of its functioning;
- Date of last quality assurance review;
- List of public-interest entities audited during the preceding financial year;
- Independence practices and confirmation of internal review of independence compliance;
- Policy followed concerning continuing education of auditors;
- Financial information, such as total audit fees as a percentage of total revenues; and fees charged for other assurance, tax, and other non-audit services; and
- Basis for partners' remuneration.

Separate from the more recent EU Transparency Report requirements, firms in the U.K. have, for several years, published annual reports on their websites in compliance with requirements applicable to all limited liability partnerships. In addition to financial disclosures, these reports have included such items as management discussion, disclosures on corporate governance, key performance indicators, and other information.<sup>24</sup>

### Academic Research

Significant input-based factors to audit quality that have been frequently examined by academics include: a firm's tenure with a client; firm independence; engagement team industry experience, competence, and adherence to professional standards; and staffing and supervision on individual audit engagements. Significant output-based factors considered in academic studies include: appropriateness of audit opinion issued; restatements; litigation; enforcement actions; and results of peer reviews and regulatory inspections. Certain studies have also explored firm size and audit fees as possible indicators of audit quality.<sup>25</sup>

Academic studies that focused on many input-based factors have failed to find conclusive evidence of a direct positive relationship with better audit quality, which

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<sup>24</sup> United Kingdom Legislation, *The Partnerships (Accounts) Regulations 2008*, No. 569, available online at: <http://www.legislation.gov.uk/uksi/2008/569/contents/made>.

<sup>25</sup> See Andrew Bailey and Audrey Gramling, *Financial Reporting Quality: A Focus on the Role of the Independent Auditor*, Research on Professional Responsibility and Ethics in Auditing, 3 – 35 (2005), for a survey of existing academic research on audit quality.

certain academics have attributed to a lack of access to data.<sup>26</sup> A comment letter received from a group of research fellows agreed that “many of the suggested input-based measures seem intuitively likely to improve audit quality”, but the group was “aware of no empirical evidence to suggest that these metrics lead to better audit quality (probably because audit firms typically do not provide such data to academics).”<sup>27</sup>

Engagement team industry experience and professional competence may be two factors for which results appear to more consistently support an association with improved audit quality. Professional competence, however, remains difficult to measure in an objective manner and is often assessed through surveys capturing participants' perceptions.<sup>28</sup>

Measuring audit quality through output-based factors can also be challenging since the outcome of an audit is not always immediately observable. Information about poor audit quality usually emerges in the context of a subsequent business failure or restatement, or it may never become known.<sup>29</sup> Simplistic indicators, such as larger firm size and higher audit fees, also may not be appropriate proxies or viewed as sound measure of higher audit quality.

A more recent manuscript entitled, “Audit Quality: Insights from the Academic Literature,” which has been accepted for publication in an American Accounting Association journal, was written to facilitate the development of auditing and other professional standards and to inform regulators of insights from the academic auditing

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<sup>26</sup> See Corporate Governance Center Comment Letter (May 15, 2008), available online at <http://comments.treas.gov/files/ACAPCommentLetterMay152008.pdf>.

<sup>27</sup> *Ibid.*

<sup>28</sup> See W. Robert Knechel, Vic Naiker, and Gail Pacheco, *Does Audit Industry Specialization Matter? Evidence from Market Reaction to Auditor Switches*, 26, 1, Auditing: A Journal of Practice and Theory, 19 – 45 (May 2007), for a recent study on industry specialization and Joseph V. Carcello, R.H. Hermanson, and N.T. McGrath, *Audit Quality Attributes: the Perceptions of Audit Partners, Preparers and Financial Statement Users*, 11, 1, Auditing: A Journal of Practice and Theory, 1 – 15 (Spring 1992) for both industry specialization and professional competence.

<sup>29</sup> Thomas C. Wooten, *Research About Audit Quality*, The CPA Journal, 48 – 51 (January 2003).

literature.<sup>30</sup> Of particular importance to this document is the summary of research on indicators of audit quality, characterized as follows:

- *Inputs*: professional skepticism, knowledge, expertise
- *Process*: risk assessment, analytical procedures, workpaper review
- *Outcomes*: restatements, financial reporting quality, accuracy of audit reports, and results of regulatory reviews
- *Context*: abnormal audit fees, audit tenure, audit partner compensation).

International Organization of Securities Commissions' ("IOSCO") Audit Quality Roundtable and Consultation on Auditor Communications

In September 2009, the IOSCO Technical Committee launched three related consultation papers on the subjects of "Transparency of Firms that Audit Public Companies," "Auditor Communications," and "Exploration of Non-Professional Ownership Structures for Audit Firms."<sup>31</sup>

The paper addressing the transparency of firms explores whether enhancing the transparency of audit firms' governance, AQIs, and audited financial statements could "maintain and improve audit quality and the availability and delivery of audit services."<sup>32</sup> The paper considers the benefits and possible disadvantages of enhanced transparency, while also examining alternative methods of achieving enhanced transparency and ways in which to mitigate any potential limitations arising from increased transparency.<sup>33</sup> IOSCO is also in the process of issuing an updated paper around the transparency of firms that audit public companies.

International Federation of Accountants' ("IFAC") Transnational Auditors Committee ("TAC")

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<sup>30</sup> W. Robert Knechel, Gopal V. Krishnan, Mikhail Pevzner, Lori Shefchik, Uma Velury. *Audit Quality: Insights from the Academic Literature*, AUDITING: A Journal of Practice & Theory In-Press (October 2012).

<sup>31</sup> Technical Committee of the International Organization of Securities Commissions, *Transparency of Firms that Audit Public Companies Consultation Report*, September 2009, available online at <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD302.pdf>. Note the comment period on IOSCO's consultation papers closed on January 15, 2010.

<sup>32</sup> *Ibid.*

<sup>33</sup> *Ibid.*

In December 2007, the IFAC TAC released a paper entitled, *Tone at the Top and Audit Quality*.<sup>34</sup> The TAC discussed “the tone set by firm management through the policies and procedures they put in place, their communications on their expectations with respect to compliance, the system of reward and sanctions they implement and...the example they set through their own behavior.”<sup>35</sup> The paper describes the meaning of the term “tone at the top” and explains its importance to audit firms. It also provides guidance in the areas of strategy, communications, job descriptions, performance appraisal, and monitoring.

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<sup>34</sup> Transnational Auditors Committee, *Tone at the Top and Audit Quality* (December 2007), available online at <http://www.ifac.org/sites/default/files/publications/files/tone-at-the-top-and-audit-q.pdf>.

<sup>35</sup> *Ibid.*