

Question 1. Do you agree that the firms reporting their AQIs should be aligned to the scope of the revised 2022 Audit Firm Governance Code? If not, what scope would you prefer and why?

I do believe this is a good start. The nine audit firms required to apply the 2022 Audit Firm Governance Code are the pillars of the modern economy. They are all too big to fail. Although there are some direct and indirect costs of preparing and publishing AQIs, the firms under the scope of the AFGC would be able to generate the AQIS without any foreseeable significant issues. In the case where an audit firm is overwhelmed with the cost and efforts of preparing and disclosing AQIs, it can stop providing services to 20 or more PIEs or one or more FTSE 350 companies. In this way, the audit firm would exit the scope of the AFGC.

After the set AQIS proves successful, AQIs can be improved and then requested from all 31 PIE audit firms. AQIs are not perfect or flawless; they are just signals that might say something about the AQ of the audit firms. The need for such AQIs is urgent as many scholars, practitioners, and regulators have pointed out that there is information asymmetry between auditors and audit stakeholders. This information gap continues to exist even after the audit firms published the transparency reports. The audit profession is dependent on trust and confidence for its legitimacy. The profession should strive to satisfy the needs of its stakeholders. Thus, all PIE audit firms should be required to prepare and disclose AQIs in the next stage.

Question 2. Do you agree that the AQIs should include all audit engagements, but segmented between PIE and non-PIE audits? If not, which engagements do you think should be included?

Yes, this might show differences in focus and emphasis between segments. For example, an audit firm might have exceptional AQIs in the PIE segment and poor AQIS in the non-PIE audits, while the average might be acceptable.

AQIs can be presented in the same way as in the financial statements (FS). First, a table of summarised aggregate AQIS can be presented in the first section. The following section presents notes to the summarized AQIS table. The notes to AQIs provide details for each AQIS. Details would include PIE segment and non- PIE segment, description, explanation, comparison with the last three years, and others.

Question 3. Do you expect any additional costs to be incurred by firms reporting over a period which is not aligned with their financial years? Are there ways to minimise these costs?

AQIs should cover the same 12 months. Firms might face difficulty in the beginning; however, for AQIS to be informative and easier to read and understand, they should cover the same period. These additional costs would be incurred either by the reporting audit firms or the users of AQIs through an attempt to make the AQIs comparable between audit firms. Information should be comparable and cover the same period. If the AQIs cover different time periods, they would be less relevant to the stakeholders.

Question 4. Do you agree that it would be useful to include supporting narrative? Please provide suggestions to ensure that the information is concise and useful for users of audit services.

Descriptions and explanations cannot be numeric. Thus, a narrative explanation is important to explain what the causes behind the AQIs are. It would provide more meaningful data. For example, the turnover rate might be 40 % for a particular audit firm. 40% turnover rate is larger than the industry average. It might mean that the audit firms recruited many fresh graduates, and then they found other better work opportunities because of the excellent experience they had obtained during their work at this audit firm. Another explanation might be that most of the 40% are senior-level employees who

quit because of a dispute with their partners or a toxic work environment. The former explanation was a good indicator, while the latter is an alarming signal. Thus, narrative context is vital.

Question 5. Do you agree with our proposed AQIs? If not, or in addition, do you prefer some of the alternatives presented above? Please explain, using the reference numbers. Question 6. Do you think there are any other firm-level AQIs that we should consider? If so, please explain. (If relevant, please refer to the list of AQIs we have considered but not proposed, in Appendix 1.)

The proposed set of AQIS is adequate and would provide more audit quality (AQ) signals to interested users who are interested in evaluating AQ of an audit firm before they make their respective decisions. The alternatives/additions can be added to the proposed AQIs as they provide more information and are not very hard to compile. The proposed set of AQIS is similar to the other nations' AQI initiatives. Appendix 2 contains several AQIs proposed by various countries. The proposed AQIs are all supported by the auditing literature (see appendix 1). The following section provides a brief literature review of some of the proposed AQIs that are indirectly connected to AQ.

- **Staff/culture survey results**

The culture of the audit firm is the bedrock of AQ. It takes a long time to build and hard work to maintain. Nevertheless, it can be destroyed in less than a day. The auditing literature has documented the impact of the culture on AQ. For example, Svanberg and Öhman (2013) have examined the effect of ethical culture on AQ. They revealed that the ethical culture of an audit firm has a primary effect on AQ. Moreover, Sweeney et al. (2010) identify a tenuous connection between ethical culture and dysfunctional audit activities. Thus, survey that measures the culture would provide a good indicator of AQ.

- **Staff utilisation**

The workload of auditors is usually higher than their counterparts in another profession. However, as with anything else, there is a limit to the workload where a human being cannot function properly. An overwhelming workload might force auditors to find shortcuts and perform AQ-reducing activities. A study from China found that the busier the partner the lower the AQ (Gul et al., 2017). Consistent with the previous argument, a study from Sweden shows busy partners, who have more audit engagements, have lower AQ, proxied by the probability of issuing a going-concern opinion (Sundgren & Svanström, 2014). High utilisation rates may indicate work overload and might lead to burnout. Herda and Lavelle (2012) found a positive correlation between burnout and turnover. Thus, the higher the burnout, the higher the probability of more auditors quitting. They also pointed out that a firm's perceived fairness is strongly connected with lower levels of auditor burnout and desire to leave. So, high utilisation rate can indicate low AQ, high burnout, and higher probability of auditors quitting.

- **Staff attrition**

The audit industry is categorised by a higher turnover rate (Waldman, 1990). Most of the auditors quit their auditing job after three to five years (Hiltebeitel and Leaubay, 2001). As a result, audit firms are operating on inexperienced auditors (Ma et al., 2022). Ma et al. (2022) investigated the appropriateness of staff attrition as an AQI as proposed by PCAOB. They have shown that the audit offices have lower AQ, proxied by a higher probability of FS restatement and failure to detect internal control weakness, when they have a high turnover rate. So high turnover can indicate an issue in an audit firm.

- **Use of specialists**

Auditors utilised specialists mainly in valuation, tax, IT audit, and forensic (Hux, 2017). The use of specialists is attributed to 5 major causes: the need for specific skills/expertise; complexity; risk; budget; and firm policy (Hux, 2017). Scholars have investigated the impact of specialists on AQ. However, a consensus was not reached. Auditors believe that using internal and external specialists improves audit quality (Christensen et al., 2016). The involvement of the specialists in the brainstorming session can enhance the quality of the session (Brazel et al., 2010). Better quality brainstorming sessions would improve AQ. Auditors believe that the value of the forensic specialist's involvement in the engagement is more significant than its cost (Jenkins et al., 2018). However, a study revealed that auditors use specialists to provide them with comfort and not insights (Griffith, 2020).

- **Staff / partner & staff / manager ratios**

Information about the audit team composition is not publicly available in most jurisdictions. However, companies in Japan disclose such information in their annual report. Hossain et al. (2017) used this data, and they found that senior auditors in the audit team are highly correlated to the AQ. Cameran et al. (2018) used private data from two big 4 audit firms. They revealed that the larger proportion of audit hours dedicated to partners and managers is, on average, related to lower audit quality at the beginning of the audit engagement. Notwithstanding, the opposite is true at the engagement's end. The previous studies suggest that the presence of senior auditors, who have more experience, in the audit engagement team increases AQ.

- **Diversity and inclusion**

The audit literature shows that gender has an impact on AQ. Hardies et al. (2016) pointed out that auditing is highly dependent on professional judgment. Previous studies have shown that risk-taking decisions and the accuracy of the decision in complex tasks differ from males to females (Chung & Monroe, 2001; Hardies et al., 2016). As a result, The gender of auditors would likely affect AQ. Cameran et al. (2018) found that more females in the leading positions of the audit team affect AQ positively. Another study on Belgian companies' data revealed that female partners have a higher probability of issuing going-concern opinions than their male counterparts (Hardies et al., 2016). Chung & Monroe (2001) reported that females are more accurate in complex tasks and males are more accurate in more straightforward tasks. The studies presented might mean that female auditors' involvement in the team is healthy to AQ.

- **Training**

Previous studies have documented the relationship between AQ and training of various forms. For example, Ocak et al. (2022) used the transparency reports of Turkish audit firms and different methodologies to investigate the correlation between CPE and AQ. They reported that CPE and AQ are significantly correlated. Che et al. (2018) explored the relationship between CPE and audit efforts. They reported a positive relationship between CPE and audit efforts. They also found that auditors with a master's degree performed more effort than their peers who have a bachelor's degree. Thus, training is vital to AQ.

- **Experience**

The experience of the auditors may improve their efficiency and quality. Auditors start as junior or assistant auditors, then climb the career ladder as time passes. They gain more experience until they become partners. Previous studies suggest that experience would have an impact on AQ. Liu & Xu, (2021) revealed that engagement partners start their new positions with a low AQ and then improve it until they reach their pre-retirement stage, where AQ deteriorates. A study from China reported that auditors with more experience have a lower probability of audit failure (Ye et al., 2014). On the other hand, another study from China concluded that auditors experience increased audit fees and reduced AQ, proxied by absolute discretionary accruals (Cahan & Sun, 2015). Moreover, not all experience enhances AQ. For example, a study that used information from Turkish publicly traded firms reported that government auditors experience lower AQ (Ocak & Can, 2019).

Question 7. Are there any other comments you wish to make about these proposals, including concerning costs, benefits, or impacts not discussed above?

The increasing criticisms of the auditing profession and doubts about its ability to serve the public interest would suggest that for the auditing profession to exist, it needs to either reform itself or be reformed by the authority (Humphrey et al., 2021). While such reform needs time, effort, and courage, auditors should be more transparent about the quality of their services. This will allow the audit firm to differentiate themselves based on AQ, build trust with stakeholders outside the audit firms, and compete with one another (Humphrey et al., 2021). Transparency is a robust tool in an industry where the main product is credence goods, such as auditing (Humphrey et al., 2021).

Thus, the audit's clients and stakeholders rely on information the auditors provided to assess such an assurance service. Auditors provide voluntarily very few insights about the audit conducted. As a result, The KAMs are mandated to provide insights about risky areas and the audit procedure conducted as a result of the identified KAM. Additionally, TRs were required to provide the audit stakeholders with relevant governance, revenue distribution, and AQ information pertaining to the audit firm. While KAM and TR are not as directly related to audit quality disclosure, they are often inspired by or have the goal of providing investors with more information to assess audit quality and make better investment decisions (Chen et al., 2019).

Decision-makers need the information to make better-informed decisions; nevertheless, "information imperfections are pervasive in the economy" (Stiglitz, 2002). The literature highlighted that disclosure either mandatory or voluntary can be part of the solution to the information asymmetry problem (Christensen et al., 2016; Fu, 2015; Healy & Palepu, 2001; Johl et al., 2021; La Rosa et al., 2019; Pott et al., 2008). Many experts believe that more transparency is crucial to maintaining trust in the auditing process (Wyman, 2004). Brydon Report (2019) and US Department of the Treasury (2008) suggested more transparency to improve confidence in the auditing profession. Thus, the AQI project by FRC is a much-needed change to the audit profession.

Sincerely,

Waleed Almutawa, CPA
PhD Candidate at RHUL
waleed.almutawa.2021@live.rhul.ac.uk

References

- Brazel, Carpenter, T. D., & Jenkins, J. G. (2010). Auditors' Use of Brainstorming in the Consideration of Fraud: Reports from the Field. *The Accounting Review*, 85(4), 1273–1301. <https://doi.org/10.2308/accr.2010.85.4.1273>
- Brydon, D. (2019). Independent review by Sir Donald Brydon into the quality and effectiveness of audit. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/852960/brydon-review-final-report.pdf
- Cahan, & Sun, J. (2015). The Effect of Audit Experience on Audit Fees and Audit Quality. *Journal of Accounting, Auditing & Finance*, 30(1), 78–100. <https://doi.org/10.1177/0148558X14544503>
- Cameran, M., Ditillo, A., & Pettinicchio, A. (2018). Audit team attributes matter: How diversity affects audit quality. *European Accounting Review*, 27(4), 595-621.
- Che, Langli, J. C., & Svanström, T. (2018). Education, experience, and audit effort. *Auditing : a Journal of Practice and Theory*, 37(3), 91–115. <https://doi.org/10.2308/ajpt-51896>
- Chen, Q., Jiang, X., & Zhang, Y. (2019). The effects of audit quality disclosure on audit effort and investment efficiency. *The Accounting Review*, 94(4), 189-214.
- Christensen, B. E., Glover, S. M., Omer, T. C., & Shelley, M. K. (2016). Understanding audit quality: Insights from audit professionals and investors. *Contemporary Accounting Research*, 33(4), 1648-1684.
- Chung, & Monroe, G. S. (2001). A Research Note on the Effects of Gender and Task Complexity on an Audit Judgment. *Behavioral Research in Accounting*, 13(1), 111–125. <https://doi.org/10.2308/bria.2001.13.1.111>
- Fu, Y., Carson, E., & Simnett, R. (2015). Transparency report disclosure by Australian audit firms and opportunities for research. *Managerial Auditing Journal*.

- Griffith. (2020). Auditors, Specialists, and Professional Jurisdiction in Audits of Fair Values. *Contemporary Accounting Research*, 37(1), 245–276. <https://doi.org/10.1111/1911-3846.12506>
- Gul, Ma, S. M., & Lai, K. (2017). Busy auditors, partner-client tenure, and audit quality: Evidence from an emerging market. *Journal of International Accounting Research*, 16(1), 83–105. <https://doi.org/10.2308/jiar-51706>
- Hardies, Breesch, D., & Branson, J. (2016). Do (Fe)Male Auditors Impair Audit Quality? Evidence from Going-Concern Opinions. *The European Accounting Review*, 25(1), 7–34.
- Healy, & Palepu, K. G. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of Accounting & Economics*, 31(1), 405–440. [https://doi.org/10.1016/S0165-4101\(01\)00018-0](https://doi.org/10.1016/S0165-4101(01)00018-0)
- Herda, & Lavelle, J. J. (2012). The auditor-audit firm relationship and its effect on burnout and turnover intention. *Accounting Horizons*, 26(4), 707–723. <https://doi.org/10.2308/acch-50181>
- Hiltebeitel, & Leauby, B. A. (2001). MIGRATORY PATTERNS OF ENTRY-LEVEL ACCOUNTANTS. *The CPA Journal* (1975), 71(4), 54.
- Hossain, Yazawa, K., & Monroe, G. S. (2017). The relationship between audit team composition, audit fees, and quality. *Auditing: a Journal of Practice and Theory*, 36(3), 115–135. <https://doi.org/10.2308/ajpt-51682>
- Humphrey, Sonnerfeldt, A., Komori, N., & Curtis, E. (2021). Audit and the Pursuit of Dynamic Repair. *The European Accounting Review*, 30(3), 445–471. <https://doi.org/10.1080/09638180.2021.1919539>
- Hux, C. T. (2017). Use of specialists on audit engagements: A research synthesis and directions for future research. *Journal of Accounting Literature*.

- Jenkins, Negangard, E. M., & Oler, M. J. (2018). Getting Comfortable on Audits: Understanding Firms' Usage of Forensic Specialists. *Contemporary Accounting Research*, 35(4), 1766–1797. <https://doi.org/10.1111/1911-3846.12359>
- Johl, S. K., Muttakin, M. B., Mihret, D. G., Cheung, S., & Gioffre, N. (2021). Audit firm transparency disclosures and audit quality. *International Journal of Auditing*, 25(2), 508-533
- La Rosa, F., Caserio, C., & Bernini, F. (2019). Corporate governance of audit firms: Assessing the usefulness of transparency reports in a Europe-wide analysis. *Corporate Governance : An International Review*, 27(1), 14-32.
- Liu, & Xu, C. (2021). The effect of audit engagement partner professional experience on audit quality and audit fees: early evidence from Form AP disclosure. *Asian Review of Accounting*, 29(2), 128–149. <https://doi.org/10.1108/ARA-08-2020-0121>
- Ma, T., Wan, C., Wang, Y., & Zhao, Y. (2022). Individual Auditor Turnover and Audit Quality—Large Sample Evidence from US Audit Offices. Available at SSRN.
- Ocak, & Can, G. (2019). Do government-experienced auditors reduce audit quality? *Managerial Auditing Journal*, 34(6), 722–748. <https://doi.org/10.1108/MAJ-12-2017-1756>
- Ocak, M., Ozkan, S., & Can, G. (2022). Continuing professional education and audit quality: evidence from an emerging market. *Asian Review of Accounting*, (ahead-of-print).
- Pott, Mock, T. J., & Watrin, C. (2008). The effect of a transparency report on auditor independence: practitioners' self-assessment. *Review of Managerial Science*, 2(2), 111–127. <https://doi.org/10.1007/s11846-008-0017-y>
- Stiglitz. (2002). Information and the Change in the Paradigm in Economics. *The American Economic Review*, 92(3), 460–501. <https://doi.org/10.1257/00028280260136363>

Waleed Almutawa, CPA

Sundgren, S., & Svanström, T. (2014). Auditor-in-Charge Characteristics and Going-concern Reporting. *Contemporary Accounting Research*, 31(2), 531-550.

Svanberg, & Öhman, P. (2013). Auditors' time pressure: does ethical culture support audit quality? *Managerial Auditing Journal*, 28(7), 572–591. <https://doi.org/10.1108/MAJ-10-2012-0761>

Sweeney, Arnold, D., & Pierce, B. (2010). The Impact of Perceived Ethical Culture of the Firm and Demographic Variables on Auditors' Ethical Evaluation and Intention to Act Decisions. *Journal of Business Ethics*, 93(4), 531–551. <https://doi.org/10.1007/s10551-009-0237-3>

U.S. Department of the Treasury. (2008). Draft Final Report of the Advisory Committee on the Auditing Profession to the U.S. Department of the Treasury. <https://www.treasury.gov/about/organizational-structure/offices/documents/final-report.pdf>

Waldman. (1990). Up-or-Out Contracts: A Signaling Perspective. *Journal of Labor Economics*, 8(2), 230–250. <https://doi.org/10.1086/298221>

Wyman. (2004). Is auditor independence really the solution? *The CPA Journal* (1975), 74(4), 6.

Ye, K., Cheng, Y., & Gao, J. (2014). How individual auditor characteristics impact the likelihood of audit failure: Evidence from China. *Advances in Accounting*, 30(2), 394-401.

Appendix

Appendix 1

Examples of supported studies	Examples of supported studies
Staff / culture survey results	<ul style="list-style-type: none"> • Svanberg, & Öhman, P. (2013). Auditors' time pressure: does ethical culture support audit quality? <i>Managerial Auditing Journal</i>, 28(7), 572–591. https://doi.org/10.1108/MAJ-10-2012-0761 • Sweeney, Arnold, D., & Pierce, B. (2010). The Impact of Perceived Ethical Culture of the Firm and Demographic Variables on Auditors' Ethical Evaluation and Intention to Act Decisions. <i>Journal of Business Ethics</i>, 93(4), 531–551. https://doi.org/10.1007/s10551-009-0237-3
Audit planning milestones	<ul style="list-style-type: none"> • Bedard, & Johnstone, K. M. (2010). Audit partner tenure and audit planning and pricing. <i>Auditing : a Journal of Practice and Theory</i>, 29(2), 45–70. https://doi.org/10.2308/aud.2010.29.2.45
Proportion of audit hours by phases of audit	Direct (intuitive) measure
Internal quality review	Direct (intuitive) measure
Inspection results – external	Direct (intuitive) measure
Inspection results – internal	Direct (intuitive) measure
Involvement of Engagement Quality Control Reviewers (EQCRs) ¹²	Direct (intuitive) measure
Staff utilisation	<ul style="list-style-type: none"> • Persellin, J. S., Schmidt, J. J., Vandervelde, S. D., & Wilkins, M. S. (2019). Auditor perceptions of audit workloads, audit quality, and job satisfaction. <i>Accounting horizons</i>, 33(4), 95-117. • Gul, Ma, S. M., & Lai, K. (2017). Busy auditors, partner-client tenure, and audit quality: Evidence from an emerging market. <i>Journal of International Accounting Research</i>, 16(1), 83–105. https://doi.org/10.2308/jiar-51706 • Sundgren, S., & Svanström, T. (2014). Auditor-in-Charge Characteristics and Going-concern Reporting. <i>Contemporary Accounting Research</i>, 31(2), 531-550. • Yan, H., & Xie, S. (2016). How does auditors' work stress affect audit quality? Empirical evidence from the Chinese stock market. <i>China Journal of Accounting Research</i>, 9(4), 305-319.
Partner involvement in audits	<ul style="list-style-type: none"> • Persellin, J. S., Schmidt, J. J., Vandervelde, S. D., & Wilkins, M. S. (2019). Auditor perceptions of

	<p>audit workloads, audit quality, and job satisfaction. <i>Accounting horizons</i>, 33(4), 95-117.</p> <ul style="list-style-type: none"> • Ma, T., Wan, C., Wang, Y., & Zhao, Y. (2022). Individual Auditor Turnover and Audit Quality—Large Sample Evidence from US Audit Offices. <i>Available at SSRN</i>. • Herda, & Lavelle, J. J. (2012). The auditor-audit firm relationship and its effect on burnout and turnover intention. <i>Accounting Horizons</i>, 26(4), 707–723. https://doi.org/10.2308/acch-50181
Staff attrition	<ul style="list-style-type: none"> • Persellin, J. S., Schmidt, J. J., Vandervelde, S. D., & Wilkins, M. S. (2019). Auditor perceptions of audit workloads, audit quality, and job satisfaction. <i>Accounting horizons</i>, 33(4), 95-117.
Use of specialists	<ul style="list-style-type: none"> • Ma, T., Wan, C., Wang, Y., & Zhao, Y. (2022). Individual Auditor Turnover and Audit Quality—Large Sample Evidence from US Audit Offices. <i>Available at SSRN</i>. • Herda, & Lavelle, J. J. (2012). The auditor-audit firm relationship and its effect on burnout and turnover intention. <i>Accounting Horizons</i>, 26(4), 707–723. https://doi.org/10.2308/acch-50181 • Hux, C. T. (2017). Use of specialists on audit engagements: A research synthesis and directions for future research. <i>Journal of Accounting Literature</i>. • Griffith. (2020). Auditors, Specialists, and Professional Jurisdiction in Audits of Fair Values. <i>Contemporary Accounting Research</i>, 37(1), 245–276. https://doi.org/10.1111/1911-3846.12506 • Griffith. (2018). When do auditors use specialists' work to improve problem representations of and judgments about complex estimates? <i>The Accounting Review</i>, 93(4), 177–202. https://doi.org/10.2308/accr-51926 • Boritz, Kochetova, N. V., Robinson, L. A., & Wong, C. (2020). Auditors' and specialists' views about the use of specialists during an audit. <i>Behavioral Research in Accounting</i>, 32(2), 15–40. https://doi.org/10.2308/BRIA-19-064 • Brazel, Carpenter, T. D., & Jenkins, J. G. (2010). Auditors' Use of Brainstorming in the Consideration of Fraud: Reports from the Field. <i>The Accounting Review</i>, 85(4), 1273–1301. https://doi.org/10.2308/accr.2010.85.4.1273 • Jenkins, Negangard, E. M., & Oler, M. J. (2018). Getting Comfortable on Audits: Understanding Firms' Usage of Forensic Specialists. <i>Contemporary Accounting Research</i>, 35(4), 1766–1797. https://doi.org/10.1111/1911-3846.12359

<p>Staff / partner & staff / manager ratios</p>	<ul style="list-style-type: none"> • Cameran, M., Ditillo, A., & Pettinicchio, A. (2018). Audit team attributes matter: How diversity affects audit quality. <i>European Accounting Review</i>, 27(4), 595-621. • Hossain, Yazawa, K., & Monroe, G. S. (2017). The relationship between audit team composition, audit fees, and quality. <i>Auditing : a Journal of Practice and Theory</i>, 36(3), 115–135. https://doi.org/10.2308/ajpt-51682
<p>Training</p>	<ul style="list-style-type: none"> • Wessels, S. (2007). Accountants' Perceptions of the Effectiveness of Mandatory Continuing Professional Education. <i>Accounting Education (London, England)</i>, 16(4), 365-378. • Ocak, M., Ozkan, S., & Can, G. (2022). Continuing professional education and audit quality: evidence from an emerging market. <i>Asian Review of Accounting</i>, (ahead-of-print). • Che, Langli, J. C., & Svanström, T. (2018). Education, experience, and audit effort. <i>Auditing : a Journal of Practice and Theory</i>, 37(3), 91–115. https://doi.org/10.2308/ajpt-51896 • Burke. (1995). Benefits of formal training courses within a professional services firm. <i>The Journal of Management Development</i>, 14(3), 3–13. https://doi.org/10.1108/02621719510078920 • Bevis. (1958). Professional Education for Public Accounting. <i>The Accounting Review</i>, 33(3), 445–449. • Chen, Chang, B., & Lee, C. (2008). The association between continuing professional education and financial performance of public accounting firms. <i>International Journal of Human Resource Management</i>, 19(9), 1720–1737. https://doi.org/10.1080/09585190802295363 • Chen, Yang, C.-C., & Yang, Y.-F. (2020). Higher academic qualifications, professional training and operating performance of audit firms. <i>Sustainability (Basel, Switzerland)</i>, 12(3), 1254. https://doi.org/10.3390/su12031254 • Gul, Wu, D., & Yang, Z. (2013). Do Individual Auditors Affect Audit Quality? Evidence from Archival Data. <i>The Accounting Review</i>, 88(6), 1993–2023. https://doi.org/10.2308/accr-50536 • Kang, Lee, H.-Y., Son, M., & Stein, M. (2017). The association between human resource investment by audit firms and their audit quality. <i>Asia-Pacific Journal of Accounting & Economics</i>, 24(3-4), 249–271. https://doi.org/10.1080/16081625.2016.1214605

<p>Diversity and inclusion</p>	<ul style="list-style-type: none"> • Hardies, Breesch, D., & Branson, J. (2016). Do (Fe)Male Auditors Impair Audit Quality? Evidence from Going-Concern Opinions. <i>The European Accounting Review</i>, 25(1), 7–34. https://doi.org/10.1080/09638180.2014.921445 • Cameran, M., Ditillo, A., & Pettinicchio, A. (2018). Audit team attributes matter: How diversity affects audit quality. <i>European Accounting Review</i>, 27(4), 595-621. • Gold, Hunton, J., & Gomaa, M. (2009). The Impact of Client and Auditor Gender on Auditors' Judgments. <i>Accounting Horizons</i>, 23(1), 1–18. https://doi.org/10.2308/acch.2009.23.1.1 • Chung, & Monroe, G. S. (2001). A Research Note on the Effects of Gender and Task Complexity on an Audit Judgment. <i>Behavioral Research in Accounting</i>, 13(1), 111–125. https://doi.org/10.2308/bria.2001.13.1.111
<p>Experience</p>	<ul style="list-style-type: none"> • Cahan, & Sun, J. (2015). The Effect of Audit Experience on Audit Fees and Audit Quality. <i>Journal of Accounting, Auditing & Finance</i>, 30(1), 78–100. https://doi.org/10.1177/0148558X14544503 • Liu, & Xu, C. (2021). The effect of audit engagement partner professional experience on audit quality and audit fees: early evidence from Form AP disclosure. <i>Asian Review of Accounting</i>, 29(2), 128–149. https://doi.org/10.1108/ARA-08-2020-0121 • Ocak, & Can, G. (2019). Do government-experienced auditors reduce audit quality? <i>Managerial Auditing Journal</i>, 34(6), 722–748. https://doi.org/10.1108/MAJ-12-2017-1756 • Ye, K., Cheng, Y., & Gao, J. (2014). How individual auditor characteristics impact the likelihood of audit failure: Evidence from China. <i>Advances in Accounting</i>, 30(2), 394-401.

Appendix 2

1. Australia

AQIs	Why it's AQIs
output measures	
Overall ASIC findings	This is a direct measurement of audit quality issued by an impartial regulator of the profession.
Key audit areas with adverse findings	Audits with negative results in many areas are often more poor.
Financial report misstatements	Adjustments to audited financial reports that are significant in nature may indicate the relative severity of ASIC audit findings.
Adjustments to issued financial reports	These modifications pertain to issues that were not detected or addressed in a prior audit. The issue may have been discovered by the business or ASIC instead of an auditor.
Adjustments initiated by auditors	The discovery and correction of material misstatements demonstrates auditors' ability to enhance financial reporting.
Input indicators	
Staff mix	This may suggest if audits are conducted with sufficient experience and skill. The hours represent the whole auditing effort.
Training	This may reveal whether or not partners and management stay abreast of changing needs. Members of big professional accounting organisations are required to complete 120 hours of continuing education every three years, of which at least 50 percent must be structured (e.g., courses).
Audit fees to net profit after tax, net assets and market capitalisation	The numbers may show the appropriateness of audit fees.

Fees for services provided to audited entities	In certain instances, the degree or character of non-assurance services may be seen as affecting the auditor's independence and impartiality.
Firm revenue from audit services and other services	A bigger proportion of other services may suggest a diminished emphasis on audit quality by the firm as a whole.
Other information	
Surveys	The findings of the surveys represent opinions and perceptions on audit quality
Source: ASIC, 2020 and 2019	

2. Singapore

AQIs	Why it's AQIs
Audit hours * Audit average time Spent by Audit Team Members during each Audit Phase	This shows the hours spent throughout each audit phase (planning, fieldwork, completion) by the audit team members (Engagement Partner, EQCR, Other Partner, managers, staff).
Experience * Years of Audit Experience and Industry Specialisation	This shows the experience of audit team members (Engagement Partner, EQCR, manger, staff) in comparison with last year and industry average
Training Average *** Training Hours and Industry Specific Training	This shows the training hours for audit partner, managers and staff.
Inspection *** Results of External and Internal Inspections	This AQI represents the audit firm's ability to execute quality audits regularly.
Quality Control ** Headcount in Quality Control Functions	It shows the human resources available. It tells the number of partner, manager and professional staff in each quality control function (Risk Management, Training, Quality Assurance, Technical).
Staff Oversight ** Staff per Partner / Manager Ratios	This AQI demonstrates the senior staff's ability to oversee junior audit team members.
Attrition Rate **	Losing many experienced staff would harm AQ

Degree of Personnel Losses	
*** Engagement & firm level ** Firm level * Engagement level	
Source: ACRA (2020)	

3. Switzerland

AQIs	Why it's AQIs
Annual revenue per audit partner	The more revenue the partner receive the better as big clients cannot pressure the partner
Non-audit fees to audit fees ratio	The possibility of a conflict of interest for the auditing firm increases as the ratio rises.
Number of staff per partner	Many staff under a partner indicates that partners would not have enough time to review all the work done by staff.
Training hours	Continuing Professional Education is essential to ensure audit quality since it is the only method to maintain auditors' skills and knowledge.
Staff turnover in %	A rate that is excessively high might have a negative impact on audit quality, since a firm may not have enough competent personnel with the essential competence and professional expertise.
Average number of engagement quality control review hours	The more the EQCR hours the better. An EQCR must be used in audits of publicly traded companies.
Average number of auditor-in-charge hours	Hours spent on the engagement is an input AQI. The higher the number, the better.
Number of foreign shared service center hours as a percentage of overall hours at public companies	

Number of consultations per public company audit	In order to improve audit quality, consultations should be performed in response to difficult or contentious conditions.
Source: FAOA, 2020	

1. Portugal

AQIs	Why it's AQIs
Audit hours ***	It demonstrates the proper participation of senior staff with higher expertise.
Partner Workload ***	It shows the availability of the audit engagement partner.
Experience ***	It reveals the experience of the engagement teams. More experienced staff would provide better AQ.
Training **	This indicator permits the evaluation of whether audit workers have enough current understanding new issues.
Turnover **	High turnover might be detrimental to AQ since acquired knowledge and expertise about customers and business practices are not appropriately integrated when there is a high turnover rate.
Hours per audit phases *	The participation of senior team members in all phases of audit work is indicative of their involvement in the audit process as a whole. Completion on time enables the auditor to identify key audit matters and adjust the audit plan accordingly.
Internal and external quality control **	It shows its commitment to quality monitoring and audit practice improvement.
Quality control function **	It shows the audit firm's commitment to deploy centralised resources to equip engagement teams with the necessary support.
*** Engagement & firm level	

** Firm level

* Engagement level