



## Exploring the growing use of technology in the audit, with a focus on data analytics

ICAEW welcomes the opportunity to comment on the Request for Input on *Exploring the growing use of technology in the audit, with a focus on data analytics* published by IAASB on September 2016, a copy of which is available from this [link](#)

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## MAJOR POINTS

1. We are pleased to respond to IAASB's Request for Input *Exploring the Growing Use of Technology in the Audit, with a Focus on Data Analytics* which acknowledges ICAEW's International Auditing Perspectives publication [Data Analytics for External Auditors](#). Our more recent publication [Audit Insights: Data Analytics](#) provides auditor insights into the business use of data analytics.
2. The paper is welcome and timely. While we agree that IAASB should not rush to standard-setting in a fast moving area – in the UK we are starting to see commercial providers of data analytics software target the SMP market,<sup>1</sup> for example – we have concerns that excessive caution will also have adverse consequences. IAASB itself acknowledges that:  
  
*'...Auditors are faced with the increased risk of getting second guessed on inspection and not having a clear basis in the auditing standards to substantiate the judgments made and procedures performed. This may deter auditors from using and experimenting with data analytics. There is also a risk that views of audit oversight authorities might evolve in an inconsistent manner—within and between jurisdictions.'*
3. We would add to this the risk that audit firms find a home for their work on data analytics somewhere outside the external audit which could impair the perceived value of external audits performed under ISAs. Regulatory engagement is critical to this project and many firms express privately, at least, a strong sense that some aspects of regulation are stifling innovation. The regulatory approach to inspection is causing some firms not to develop new applications simply because they do not think regulators will like it, or will find it difficult to slot into the existing ISA mind set.
4. Furthermore, many firms have a strong sense that they are doing too much in some areas simply because of the requirements of ISAs – while also performing much needed work that is not currently required by ISAs. While many of the latter issues are currently being dealt with by IAASB in its current projects on ISAs 315 and 540,<sup>2</sup> almost all firms report performing useful work on journals that is not required by ISAs, and other work on journals that is now unnecessary (as a result of changes in business practices and data analytics) simply because ISAs require it. They have the sense that they get no credit for this and that adding to the work they perform simply because it is possible, is not of itself a good reason for doing so. Cost is not irrelevant to this debate. For smaller firms in particular, if the market demands the use of data analytics within external audit, but auditing standards do not admit that data analytics has value, and no consideration is given to what firms do not now need to do as a result of these enhanced capabilities, the economics of the provision of smaller audits will be further skewed in favour of large firms. This risks exacerbating existing competition issues and increasing pressure for an alternative set of auditing standards, less onerous than those promulgated by IAASB, for smaller audits.
5. IAASB is unlikely to be able to avoid a compromise here in striking a balance between the risks associated with waiting for consistent patterns in practice to emerge to facilitate consensus, and those associated with premature standard-setting. Furthermore, it seems unlikely that there will be a clear point in the future at which IAASB will be able to state that 'now is the right time' for standard-setting as the nature of data analytics as an emerging technology means that there will always be some who believe that the next development will be 'game-changing'. This, combined with IAASB's current work on ISAs 315 and 540, both of which are at the heart of every audit, suggests that IAASB should give serious consideration to

<sup>1</sup> For example, [Inflo](#) launched a data analytics offering aimed as SMPs at Chartered Accountants' Hall on 17 November 2016.

<sup>2</sup> ISA 315 *Identifying and Assessing the Risks of Material Misstatement through Understanding the Entity and its Environment* and ISA 540 *Auditing Accounting Estimates, Including Fair Value Accounting Estimates, and Related Disclosures*

the impact of data analytics on these ISAs now, while there is the opportunity to make significant change. The appetite for change to these ISAs is likely to be much reduced if IAASB leaves it until later, because of what will have been a relatively recent and significant overhaul to accommodate other developments.

6. It is becoming clear in some of IAASB's current projects that objectives-based requirements are the way forward, without which IAASB will forever be playing a game of catch-up and codifying past practice. Future-proofing auditing standards requires acknowledgement that real time auditing and the development and widespread use of artificial intelligence applications are likely in the foreseeable future, and that cloud computing is a reality now. We do not believe that it is appropriate for IAASB simply to shoehorn data analytics into the existing ISA approach. Some consideration should be given to whether a new or revised approach is required in some areas.
7. We note that IAASB has already reached some conclusions. The first is the assertion that being able to test 100% of a population does not imply that the auditor is able to provide something more than a reasonable assurance opinion or that the meaning of 'reasonable assurance' changes. We agree that the definition of reasonable assurance is very unlikely to warrant change, regardless of developments in data analytics. Nevertheless, its meaning, in terms of perceptions of what it signifies, its value, and what users understand by 'reasonable assurance' will by definition change (as indeed they should) in line with changes to the underlying audit brought about by data analytics and other significant developments. Importantly, some believe strongly that auditors are providing more value than they used to through their use of data analytics (audit firm marketing certainly suggests this) and that auditing standards should reflect that enhanced value. That is not to say that the reasonable assurance opinion should change. It does suggest however that IAASB should consider how the enhanced value of the audit brought about by data analytics, where it is used, can be reflected in auditing standards and, in turn, improve stakeholder perceptions about the value of audit.
8. The second conclusion apparently already reached by IAASB involves references to the audit risk model and the risk of material misstatement. IAASB states that the structure of ISAs requires an identification of the risks of material misstatement (a function of inherent risk and control risk) and a response to those risks. It goes on to state that the use of data analytics does not negate that model but changes the way it is implemented, such that risk identification and response occur in one step. While we agree that data analytics does not 'negate' that model, some believe strongly that data analytics does have a fundamental impact on the model and that IAASB should take the time now, to consider its impact on the thinking underlying the concepts of inherent and control risk. The fact that, as the ISA 315 working group acknowledges, some auditors have difficulty in considering inherent risk independently of control risk indicates that there may be an issue to address. While there are others who do not have this problem, now may be the right time to explore these issues, including the impact of data analytics thereon. The outputs of some data analytics tools are seen by some as providing 'evidence' that goes beyond risk assessment, to being part of the response. Questions for IAASB include what 'evidence' such tools provide, whether it is sufficient, and what this means for the requirements of ISA 330.<sup>3</sup>
9. IAASB recognises in the paper that there are challenges fitting evidence derived from data analytics into the current 'audit evidence model' within the ISAs and in particular that there are implications of analysis of 100% of a population for:
  - (a) risk identification and assessment;
  - (b) the evaluation of misstatements and what further work is needed when exceptions are identified – there is a lack of consensus between firms and regulators in this area;

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<sup>3</sup> ISA 330 *The Auditor's Responses to Assessed Risks*

- (c) the use of data analytics to provide audit evidence, and whether evidence should be classified as tests of controls, tests of detail or substantive analytical procedures; and
- (d) the performance of other substantive audit procedures or tests of controls.

We believe these fundamental issues need to be addressed sooner rather than later not least because of the implicit assumption in ISAs that most audit procedures involve testing samples of transactions and balances, rather than full populations.

## RESPONSES TO SPECIFIC QUESTIONS

### (a) Have we considered all circumstances and factors that exist in the current business environment that impact the use of data analytics in a financial statement audit?

10. The circumstances and factors in the current business environment impacting the use of data analytics in a financial statement audit identified by IAASB include data acquisition, conceptual and legal and regulatory challenges, resource availability, regulatory oversight and the investment in re-training and re-skilling auditors. This is a good list of environmental issues. They are described well in the paper and we might add to them the fact that data analytics is not optional for some businesses which means that larger audit firms have no choice but to provide data analytics as part of the audit for listed and some other clients. 'Not doing' data analytics is simply not a realistic option for some auditors. We note in paragraph 6, above, the importance of an objectives-based approach to these issues to avoid standards becoming out of date almost as soon as they are issued.
11. IAASB also alludes issues around data capture, validation and transformation. These represent the most difficult and costly challenges facing firms in developing their data analytics capabilities and getting them right is critical to the integrity of data analytics as a process and to its credibility. They are not issues standard-setters or regulators can or should avoid, despite their technical complexity, and IAASB should consider the nature and extent of its coverage of these in objectives-based standards.
12. Finally, IAASB also refers to auditor education and the need for specialists statistical and other skills in within the audit team, This issue, and the checks and balances that need to be in place within a firm's methodology when generalist auditors have access to sophisticated data analytics tools is one that exercises regulators. The UK's Financial Reporting Council (FRC) also notes the issue in its January 2017 Audit Quality Thematic Review *The Use of Data Analytics in the Audit of Financial Statements* (AQTR on audit data analytics).

### (b) Is our list of standard-setting challenges accurate and complete?

13. IAASB's list of standard-setting challenges is well thought-out. We believe that two particular areas stand out: ISA 230 *Audit Documentation* and ISA 500 *Audit Evidence*. The issues that need to be considered by IAASB are well-described in the paper, and the relevant ISAs need to be addressed. ISAs need to address questions associated with documentation and retention when using data analytic tools, such as expectations about the retention of data sets. IAASB should also consider the issues highlighted in the FRC's AQTR on audit data analytics. These include issues of documentation and evidence relating to centrally run audit data analytics in group audits, monitoring the use of data analytics, the use of specialists' work, standard audit documentation, and the qualitative characteristics of good documentation.
14. We note in our major points above the need to balance the risks associated with premature standard-setting with the need for guidance now, in order for auditors and regulators to proceed with certainty and to ensure that the value of data analytics is retained within ISA audits.
15. IAASB should not defer robust consideration of some of the substantive issues raised in the paper for much longer. They are well-articulated, require no further evidence gathering or

exposition, they are not going away and they are unlikely to change, even as data analytics develops. IAASB should not defer discussion simply because it is likely to commence with differences of opinion between auditors and regulators. The relevant issues include:

- a. factors to consider when assessing the sufficiency of audit evidence required where data analytics provides much greater depth and breadth in testing than sampling, including procedures required by ISAs that are now redundant as a result of data analytics (paragraph 14);
  - b. the use of risk assessment procedures as substantive audit evidence and whether and how the current requirement for the development of expectations should be elaborated in the context of data analytics (paragraph 19 (d));
  - c. the changing nature and role of controls testing when analysing a full population, and the shift in focus from preventative to detective controls generally (paragraph 19 (e));
  - d. the nature of exceptions in the context of 100% testing, the calibration of data analytics routines, and any circumstances in which an appropriate response to a large number of genuine exceptions might be to test a sample thereof (paragraph 19 (g)); and
  - e. the qualitative characteristics of documentation to be retained by auditors when large volumes of data are analysed (paragraph 19 (i)), and the other documentation/evidence issues outlined in paragraph 13, above.
16. In all of these cases we believe it is important to remember that the ISAs were developed on the implicit assumption that in the vast majority of cases, it is simply not possible to test 100% of a large population. IAASB should not attempt to deal with data analytics within the existing ISA approach without any consideration of whether a new or revised approach might enhance audit quality in some areas.

**(c) To assist the DAWG in its ongoing work, what are your views on possible solutions to the standard-setting challenges?**

17. The tone of this paper is quite cautious. We believe that IAASB, as a mature standard-setter can afford to (and should) embrace some of the challenges data analytics presents to ISAs more positively. Indeed, as we note in our major points above, there are risks to perceptions regarding the value of audit and the future of IAASB as the global auditing standard-setter if it does not. ISAs can and should bring to life through application material how data analytic tools are being used in the audit today, and the sort of evidence IAASB believes they can provide.

**(d) Is the DAWG's planned involvement in the IAASB projects currently underway appropriate?**

18. Yes, the DAWG's planned involvement in the IAASB projects currently underway is appropriate, except as described in our major points above (particularly item 4).

**(e) Beyond those initiatives noted in the Additional Resources section of this publication, are there other initiatives of which we are not currently aware of that could further inform the DAWG's work?**

19. We are not aware of any initiatives beyond those noted in the Additional Resources section that could further inform the DAWG's work other than work being performed by a PhD candidate at Copenhagen Business School on data analytics in the external audit. We understand that the DAWG is aware of this work.

**(f) In your view, what should the IAASB's and DAWG's next steps be? For example, actions the IAASB and DAWG are currently considering include:**

**(i) Focusing attention on revisions, where appropriate, to ISAs affected by the IAASB's current projects.**

**(ii) Exploring revisions to ISA 520.2**

**(iii) Hosting one or more conferences with interested stakeholders to collectively explore issues and possible solutions to the identified challenges.**

**(iv) Continuing with outreach and exploration of issues associated with the use of data analytics in a financial statement audit, with a view towards a formal Discussion Paper consultation in advance of any formal standard-setting activities.**

20. We believe that it is right for IAASB to focus attention on revisions, where appropriate, to ISAs affected by the IAASB's current projects, and to explore revisions to ISA 520 *Analytical Procedures* and ISA 530 *Audit Sampling*. As noted in our answer (b) above, we also believe that IAASB should give serious consideration to the need to revise ISAs 230 and ISA 500. Issues relating to error evaluation when 100% of a population is being tested could be dealt with in a number of these ISAs, or indeed ISA 330.
21. We believe that IAASB should not further defer active consideration of the five critical substantive issues identified in its paper as described in our answer (b) above. Any further deferral will result in auditors and regulators remaining uncertain and neither will have, in IAASB's words, a clear basis in the auditing standards to substantiate judgments and procedures performed. This is likely to deter innovation in the use of data analytics, and views of audit oversight authorities are likely to evolve inconsistently both within and across jurisdictions.
22. Hosting conferences and conducting further outreach prior to the issue of a formal discussion paper are important but Board consideration of the substantive issues is necessary if those conferences and outreach are not to simply go over the ground IAASB has covered so well in this paper.