

3 February 2017

Ref: 17/05

Prof. Arnold Schilder
Chairman
International Auditing and Assurance Standards Board
International Federation of Accountants
529 Fifth Avenue, 6th Floor
New York, New York
10017 U.S.A.

Dear Professor Schilder,

RE: IAASB's Request for Input - *Exploring the Growing Use of Technology in the Audit, with a Focus on Data Analytics*

The International Association of Insurance Supervisors (IAIS) welcomes the opportunity to comment on the IAASB's Request for Input: *Exploring the Growing Use of Technology in the Audit, with a Focus on Data Analytics*. The IAIS acknowledges and supports the significant work done by the IAASB's Data Analytics Working Group (DAWG) in exploring the use of technology and in developing the paper on the use of data analytics specifically.

The pace of technological development is rapid, affecting all industries and sectors. The IAIS believes the auditing standards and the audit risk-based approach as currently defined in ISAs are fundamentally sound. However, the IAASB should evaluate whether current International Standards on Auditing (ISAs) continue to meet stakeholder needs based on technological advances and the increasing use of data analytics in business decision-making, with the aim of ensuring standards and guidance for auditors facilitate high-quality audits.

Technology is affecting the audit profession both externally, such as through the technology used by clients, and internally, through the technology tools and techniques used by the auditor on audits of financial statements. The advanced capabilities and potential of data analytics could have a significant impact on financial statements audits, including for insurers, and could pave the way for further audit innovations. In this context, technology could be seen as helping address business challenges but also pose some business challenges itself.

The use of data analytics has the ability to enhance audit quality by way of contributing to the effectiveness and efficiency of the audit in various stages of the audit process. Through use of data analytics techniques auditors could perform procedures on larger populations improving risk-based selection and enhance auditor ability to identify relationships and inconsistencies. However, we emphasise the importance of the continued application of auditor *professional skepticism* and *professional judgments* which should not be replaced by the use of data analytics, as pointed out in the Paper. For example, auditors may be able to more effectively sort through data within actuarial experience studies supporting changes made to insurance liability assumptions, but the application of professional skepticism and judgement are still needed to properly assess the reasonableness of the accounting estimates.

The use of data analytics has significant effect on many audit areas (risk assessments, controls testing, substantive and analytical procedures and gathering of audit evidence). This may pose challenges on:

- i) The application and the structure of the auditing standards. Data analytics permeates throughout many audit areas, and therefore the IAASB may need to update any ISAs affected by data analytics (such as quality control, group audits, ISA 520 *Analytical Procedures*). However, this work should not pose a risk to delaying any of the IAASB high priority projects for 2017-2018.

It may also be helpful to create a new ISA for “using data analytics in assurance engagements” to bring it all together.

- ii) The business model of the audit firms and the audit team composition. We believe the audit engagement partner and senior audit team members need to ensure there is adequate supervision and understanding the work performed by centralised expertise operations within audit firms.

The IAASB should ensure that auditing standards remain relevant, taking into account the profound changes in information technology and addressing new challenges for auditors. In particular, the IAIS considers that an effective use of technology to deliver higher audit quality raises some challenges to be carefully managed:

- The challenge of data gathering cannot be underestimated. Issues encountered in the access to data, reliability of controls regarding the quality of data, data storage as well as concerns about integrity, security of data and privacy, require particular attention and application of strict verification procedures and policies.
- Technology should not override the human factor or physical presence. Human interactions are still important to fully understand a client’s business and its processes, to assess and address the risks, as well as identify and resolve audit issues. In order to remain fully relevant, the profession should be careful not to head towards ‘virtual audits’.
- The ISAs require the audit engagement partner to assess whether sufficient appropriate audit evidence has been obtained in order to support the auditor’s opinion. The IAIS agrees that this responsibility will not principally deviate with changes in the manner in which evidence is obtained. It should be clear that opinion remains a “reasonable assurance.” However, risks of overconfidence in technology and data are very important. All audit issues cannot be addressed with new technology and not all sufficient appropriate evidence can be represented nor captured electronically. The application of this new technology brings with it new risks that need to be addressed (i.e. reliability of the mining, integrity of the data, understanding of the algorithms).

As the engagement partner is required to be satisfied that sufficient appropriate audit evidence has been obtained, this increasingly complex environment should lead the ISAs to underline the need for enhanced *professional skepticism* and *professional judgments* in the assessment of the reliability of data used and evidence that is captured through data analytics.

- There should be strong quality control processes over the use of analytics by auditors in their procedures. Improper design, use or interpretation of the results from data analytics could lead to auditors forming improper conclusions on whether financial statements are fairly stated or sufficient audit evidence has been obtained to support the audit opinion.

- In addition, data analytics used by auditors can enhance audit quality and should not fundamentally change the principles of auditing. Considering that not all auditors or audit engagements have access to or choose to use data analytic tools and techniques, using data analytics should be recognized in the auditing standards as an auditing technique that can be applied by auditors, but not necessarily required.

The appendix to this letter provides more detailed responses to the questions set out in the paper. This appendix was prepared on behalf of the IAIS by its Accounting and Auditing Working Group (AAWG). The AAWG's membership represents a subset of all IAIS members.

If you have further questions regarding this letter, please contact Mark Causevic at the IAIS Secretariat (tel: +41 61 280 8323; email: mark.causevic@bis.org) or Markus Grund, Chair of the IAIS Accounting and Auditing Working Group (tel: +49 228 4108 3671; email: markus.grund@bafin.de).

Yours sincerely,



Victoria Saporta
Chair, Executive Committee



Elise Liebers
Acting Chair, Financial Stability
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**Appendix: IAIS Responses to Questions set out in the IAASB's Request for Input -
*Exploring the Growing Use of Technology in the Audit, with a Focus on Data Analytics***

(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?

The IAIS agrees with the developments describing the challenges resulting from the factors and circumstances linked to the business environment.

The IAIS believes particular consideration should be given to challenges around the following:

- Due to changes in technology, audit firms have the need for skills and expertise in IT systems, including data security, cloud computing, management, presentation, analysis and visualisation of data, and also in project and process management. This means that audit firms should amass capabilities through next generations of auditors, focusing on the skills and continual development of those skills that will be critical in an increasingly technology-enabled profession. Audit staff should be trained in the new technology and tools and change the manner in which they think and apply the audit approach. This new wave of innovation in data analytics will likely affect all sizes of audit firms, but particularly the big audit firms that audit large entities. These significant investments both in physical and human capital, to develop and drive future capabilities, will likely require some changes in the business model of audit firms.
- In managing these changes, audit firms will have to ensure new skills and capabilities remain at the service of the audit and are appropriately integrated into the audit approach and audit team. They should determine how these developments change the skill mix and structure of audit teams, and monitor how these technologies influence the manner in which the auditor thinks through the audit issues and applies his/her judgment. Technology should not override the human factor or physical presence, as human interactions are still important to fully understand a client's business and its processes as well as to identify and resolve the issues. We emphasise the importance of the continued application of auditor *professional skepticism* and *professional judgments* which should not be replaced by the use of data analytics. In order to remain fully relevant, the profession should be careful not to head towards 'virtual audits'.
- If these tools and innovations lead to improvement in audit quality, this will be beneficial for all users of the financial statements. But if the tools are used purely to further client relationships by providing deeper data analysis for management, some could argue that audit firms perceive the audit function merely as a springboard to more lucrative non-audit engagements.
- Another important challenge for audit firms will be to convince clients that they can be able to store a high volume of client data and to insure the integrity, security of client data and privacy. This issue could become more worrying when the audit procedures are performed in different jurisdictions.

In response to the question regarding the degree of cooperation of the client, we understand that CEO/CFOs are relatively receptive but there is some reticence from IT departments considering time and resources they would have to spend with auditors on this topic. They have also some concerns regarding access security and risk with regard to the integrity of data and data bases. This results in long discussions concerning modalities of access, security and format of data provided to auditors.

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

The IAIS believes that the IAASB identified appropriately the different challenges encountered by auditors in applying data analytics and new technologies, which might affect audit standard setting. In particular, the IAIS acknowledges that the use of data analytics allowing 100% testing of a population is raising particularly challenging questions about the nature of the audit evidence provided by those techniques.

IT Controls

The IAIS is not completely convinced that the use of data analytics increases the need to focus more on IT general controls, IT application controls and the accuracy and completeness of the information. In the context of an audit, these questions need to be appropriately addressed independently of the techniques which have been developed for gathering audit evidence. It would be more appropriate to state that the development of innovative techniques reveals that the current standards and/or the current practice should be enhanced so as to address appropriately all the issues arising from an audit carried out in highly computerized environments.

In particular, regarding entities engaged in insurance activities, the IAIS has long been convinced that the audit of their financial statements requires significant focus on internal controls, and in particular on IT general controls and IT application controls. The IAIS believes that an adequate response to assessed risks requires an appropriate confidence in the internal controls based on an effective testing of those controls.

Challenges

Nevertheless, it should be acknowledged that the application of data analytics puts more stress on some specific issues, including the following:

- An audited entity generally does not provide direct access to the information systems but provides databases containing a copy of the information needed, in a specific environment. The issue for the auditor is to ensure that the information provided is accurate and complete and is provided in an appropriate format. It may be helpful for the auditing standards to provide additional guidance, especially when the audit utilizes data analytics from information produced largely by the entity.
- The new technology and tools are very powerful and allow the auditor to capture a broader data set, to structure that data under some criteria and to go through and select some of them. However, consideration should be given to the fact that even though data analytics can provide some pervasive audit evidence, they are not a substitute to all audit evidence. In particular, audit evidence that has to be obtained through controls testing, specific understanding of the entity and its environment, use of professional judgments and other audit procedures necessary to gain reasonable assurance over the financial statements. While such techniques can be powerful to identify risks within the data set being analyzed, assessment of risks that may exist outside of the data will continue to be an important part of the risk assessment process.
- Auditors should apply professional skepticism and investigate further when the results from data analytics produce inconsistent or contradictory evidence.

Furthermore, the IAIS understands that audit firms are developing or using software audit tools and that these software audit tools vary, some firms having purchased customized tools or having internally developed their own tools. Most software audit tools are being used for performing substantive audit procedures, while some others may also be used for risk assessment. In this context, the IAIS share the concern expressed in the paper regarding the challenge encountered by firms which have to adapt their systems of *quality control* with the aim at obtaining assurance that

the tools used to analyse the data meet the audit objectives - this includes engagement teams applying *professional skepticism*, and being able to take an appropriate step back when using these tools during the performance of the audit work, including when assessing the results of that work.

There should be strong quality control processes over the use of analytics by auditors in their procedures. Improper design, use or interpretation of the results from data analytics could lead to auditors forming improper conclusions on whether financial statements are fairly stated or sufficient audit evidence has been obtained to support the audit opinion.

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

As it relates to the auditing standards themselves, the IAIS understands from the discussion between stakeholders that there are some that believe that only incremental guidance relating to audit data analytics is necessary, while there are some others who believe the standards need to be more encouraging regarding the use of data analytics, while at the same time being able to stand the test of time and be technology agnostic.

In this changing environment, it would be useful to start with a more comprehensive overview of the tools and techniques currently used and the manners in which they are used. In fact, the term “data analytics” covers different types of tools and techniques that can be used to process, sort, classify, compare and analyse data in an automated manner according to various algorithms. Moreover, the intensity of use of data analytics by auditors and the level of the refinement of those tools vary, depending on the engagements, within the audit firms and across jurisdictions.

The IAIS believes that even in the context of audit data analytics, the risk-based audit approach as it is set up in current audit standards remains sound but the ISAs need to be reconsidered and adapted in the context of the new technology environment. The use of data analytics has significant effect on many audit areas (risk assessments, controls testing, substantive and analytical procedures and gathering of audit evidence). This may pose challenges on the application and the structure of the auditing standards.

The IAIS is convinced that in an increasingly complex and high-volume data environment, the use of technology and data analytics offers opportunities for the auditor to supplement his risk assessment, obtaining a more effective and robust understanding of the transactions and accounting effects of the entity’s business activities and its environment. The data analytics will help auditors to better understand the accounting effects of the different business and management activities, through the structure of the transactions and the records captured within the ledgers. In this way, it is a powerful means of helping identify areas of risk, including the risk of fraud, and allows for opportunities to better orient the audit procedures. It is probably in this area that the standard setting activities might take into account data analytics in the most informed and efficient way.

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

The use of data analytics can be particularly useful for improving risk assessment through broader and deeper insight into the entity and its environment. This increased understanding of the quality and the objectivity of the information and transactions increases the likelihood of identifying and testing audit areas associated with higher risk and to perform more effective and efficient audit work.

In this context, the IAIS encourage the DAWG to be more directly involved with the activities of the various project working groups, including dealing with the revision of ISA 315.

(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?

The IAIS is not aware of other initiatives beyond those noted in the *Additional Resources* section.

(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.**
- (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.**

The IAIS is supportive of the next steps identified by the IAASB and DAWG. The IAIS is of the view that the DAWG should continue with the outreach and exploration of issues associated with the use of data analytics, with the aim at issuing a Discussion Paper consultation in advance of any formal standard-setting activities.

Consideration of data analytics, except regarding ISA 315, *should not lead to the delay, or pose the risk of delaying*, the issuance of the standards currently under revision based on the priority projects set by the IAASB for 2017 - 2018. Data analytics permeates throughout many audit areas and therefore the IAASB may need to update any ISAs affected by data analytics (such as quality control, group audits, ISA 520 Analytical Procedures). It may also be helpful to create a new ISA for using data analytics in assurance engagements "to bring it all together".

It would be very important that this Discussion Paper deals not only with the conceptual and practical issues regarding the use of data analytics, but also more generally with the improvement needed in the current standards and/or the current practice so as to appropriately address all issues arising of an audit carried out in an environment that is highly computerized with management of a high volume of data. The IAIS is convinced there is a need for providing more detailed guidance through application material in the ISAs, or issuance of other non-authoritative materials, on the manner to assess the risks in a highly computerized environment and how to adequately respond to those risks.

In this context, it may very worthwhile to explore, through dialogue with specialists such as data scientists and academics, the various issues raised by the management of data and use of statistical approaches.