

February 15, 2017

International Auditing and Assurances Standards Board  
Data Analytics Working Group (DAWG)  
529 5<sup>th</sup> Avenue  
New York, NY 10017

Re: Comment on DAWG Request for Input,  
“Exploring the Growing Use of Technology  
in the Audit, with a Focus on Data Analytics”

To the Members of the Data Analytics Working Group:

Harvest Investments, Ltd. welcomes the opportunity to comment on the Working Group’s “Exploring the Growing Use of Technology in the Audit, with a Focus on Data Analytics” and thanks the Working Group for its work to date on questions attending auditing, data analytics, and professional skepticism. As an independent securities valuation specialist focused on financial reporting, ASC 820 compliance, security appraisals, and fair value measurement, Harvest has had considerable opportunity to observe the ways that pricing information is received and used within valuation and audit. In what follows, we will restrict ourselves to that topic, and hope our comments may prove useful to the Working Group.

In our view, data analytics have not developed to the point where it makes sense for IAASB to issue standards concerning the specific technologies themselves. The Request for Input indicates that the Working Group is already well aware of what we consider to be the central problem with these tools: how they are used. Data does not become “objective” simply by virtue of the (generally numerical) form in which it is presented, and it also operates in complex institutional and social contexts that affect both its generation and its use. In terms of securities valuation, it is important to note that auditors use but do not themselves generate prices. Auditors generally rely on pricing information provided by an increasingly small number of sources, since the pricing industry has become increasingly consolidated. This development poses a number of challenges concerning the reception of “big (pricing) data” in the audit context.

First, auditors are not trained to analyze either the inputs of the pricing information they use, or the operations performed through those inputs. However, a clear understanding of inputs is what allows data to be used most effectively and accurately, minimizing rather than amplifying potential systemic risks. Currently, we have a situation in which a large amount of pricing data is routinely used and passed around, but not necessarily well understood. This state of affairs allows significant variances to arise, as we have often encountered in our work.

Second, more data does not necessarily equal better data, nor can it substitute for rigor and expertise. Here, we would like to strike a cautionary note about the relationships between analytics and ever-bigger data, particularly when those relationships are shaped by marketing literature that tends to see new big-data management tools as the solution to all (or most) problems. To clarify what is at stake, we offer the following illustration of the valuation issues involved with levelling and ASC 820 compliance. For Level 1 securities, bulk-generated prices are generally adequate, since these

are actively traded and establishing price is a fairly mechanical operation; for these securities, pricing services generate their prices using very large datasets of market transactions as well as more customized analytic tools. When it comes to Levels 2 and 3, however, the situation is very different, since these securities are not actively traded; most pricing services do not provide inputs, so valuing them requires an actual in-depth appraisal by a specialist. “Big data” is not especially helpful in such cases, since it either doesn’t exist or isn’t relevant to the specific circumstances (e.g., time and place) of the appraisal. If “big data” can be visualized as spreading along a horizontal axis, then valuing Levels 2 and 3 securities involves working a vertical axis, and taking a “deep dive” into particular inputs. Auditing holdings of Level 2 and 3 securities places additional demands on auditors, who at any rate already must purchase values from other sources, since they cannot be (and in fact are not) expected to generate such information themselves. Rather, they have to recognize valuation problems that they cannot themselves fully assess or resolve, and respond accordingly.

In an environment where big data and analytics are selling points, it is important to approach actual data with intelligence and an awareness of limitations. The interpretation of data is a skill that requires critical thinking, informed by professional skepticism as well as concerns about confirmation and other forms of bias. “Data analytics” designates a rapidly expanding and changing range of software platforms, and its basic character is arguably still in flux. Currently, marketing literature is a principal driver in shaping how the space of data analytics is perceived or imagined. For example, a recent article in the *Financial Times* describes some of the consequences that have followed in England from the requirement that auditors rotate clients.<sup>1</sup> For the “Big Four” accounting firms, the result has been to focus on relative competitive advantages. Data analytic tools figure prominently as expressions of competitive advantage---each of the Big Four are said to be pouring capital into developing new tools, driven by a sense that the industry is changing and that advantage ultimately lies with the ability to define that change. However, the article’s principle sources are Big Four marketing people, whose jobs involve developing these analytics and making claims about how they will help their employer define change in the future. The article ends up being largely circular, reflecting how marketing people see their tasks and the spaces occupied by analytics within it. In this context, data seems to be about buying and selling in bulk.

Outside the Big Four, the main concerns about data analytics can be quite different. Medium-to-small audit firms are quite reasonably concerned about the costs associated with developing new tools. Workflows that integrate new analytic tools might transform current audit practices and make them more effective, but some observers have already expressed concerns about the employment consequences of an increasing automation of auditing, both in terms of the number of positions available and the career stability they might afford.<sup>2</sup> Others are concerned that data analytic tools could change the underlying skill sets required for auditors.

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<sup>1</sup> 5/9/2016, Harriet Agnew, “Auditing: Pitch Battle” in *Financial Times* <https://www.ft.com/content/268637f6-15c8-11e6-9d98-00386a18e39d>

<sup>2</sup> For example, the speakers at the Inflo product launch from November 2016: <http://inflosoftware.com/latest-news/>

The above descriptions combine envisioned futures derived from marketing literature with insights gleaned from watching how automation processes have gone in other industries. In its Request for Input, the Working Group supplements such visions of the future with AICPA’s collection of essays about continuous audit, in order to create a sense of long-term horizon relative to which we might think about data analytics in the present. The resulting thought experiments are interesting, particularly with reference to continuous audit. But, as the Working Group acknowledges, we are several steps away from continuous audit. For the time being, standard setting should keep an eye on the present even as it tries to anticipate the future, since the present provides a more tangible context for thinking about continuous audit, its relation to financial statements and valuation, and any related challenges that may arise.

Data analytic tools can address certain kinds of problems that are matters of datasets, types of operations performed on those datasets, and platform design. But even in a context entirely saturated with data analytic tools, auditors must still be capable of understanding the data that they use well enough to treat it with the requisite professional skepticism, identifying those instances in which more information is needed or additional analysis and scrutiny required. They would also need to have a basic understanding of the operations performed by these analytic tools, as well as their advantages and, perhaps most especially, their limitations.

“Big data” is often presented as if the capacity to manage more data is necessarily an improvement over the capacity to manage less, with claims about the merits of quantity taking precedence over the persistent challenges of interpretation. But our experience with fair value has shown almost the opposite: that nothing about the use of big datasets and the tools that allow them to be generated and navigated changes the fact that auditors cannot rely exclusively on pricing information generated by big data.

In its Request, the Working Group presented several options for further action, one of which was to host a conference or series of conferences. We think this would be a very helpful and productive undertaking, and we would welcome the opportunity to attend. The issues are complex and involve multiple stakeholders; bringing people together to discuss those areas where present practice does not conform to guidance or where technologies are redefining skillsets would surely provide constructive reference points for the Board’s continuing work.

We appreciate the opportunity to comment on the Working Group’s Request, and we hope that our observations about the use of data in pricing and valuation may prove useful your deliberations. If members of the Working Group would be interested in discussing any of our arguments in more detail, we are at its disposal: please contact Susan DuRoss at 312-823-7051.

With best regards,

Harvest Investments, Ltd.