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Ten years of XBRL: Financial-reporting experts reflect on benefits, successes, and remaining challenges (Part 2)

To mark the tenth anniversary of the SEC implementing its XBRL-tagging requirement for financial disclosure filings, *DIMENSIONS* asked six XBRL experts in the securities regulation, financial reporting, or capital markets sectors to comment on the structured-data revolution in SEC reporting.

- » Mike Willis, Assistant Director, SEC Office of Structured Disclosure
- » J. Louis Matherne, Chief of Taxonomy Development, FASB
- » Campbell Pryde, President and CEO, XBRL US
- » Christine Tan, Co-Founder and Chief Research Officer, idaciti
- » Pranav Ghai, CEO, Calcbench
- » Lou Rohman, Vice President of XBRL Services, Toppan Merrill

In Part 1 (see the June/July 2019 issue of *DIMENSIONS*), the experts commented on whether the XBRL requirement has been a success, how the use of structured data has evolved over the past ten years, and what challenges remain for issuers in preparing SEC filings. Here in Part 2, we cover quality issues, Inline XBRL, and future developments.

NOTE: The views expressed here are solely those of the individual respondents, and they do not necessarily reflect the views of their respective organizations.

How has the quality of XBRL filings improved? What areas still need attention?

Mike Willis, SEC: There are several factors contributing to quality improvements. First is filer awareness of the growing use of XBRL data, not only by the SEC, with integration into EDGAR itself, but also by data providers in the marketplace. This increasing use should help to focus filer attention on the sources of potential error. Further, with the increasing use, filer management should understand that they are personally liable for structured-disclosure errors in the same manner that they are liable for their traditionally reported disclosures. As a result, appropriate process controls and oversight are critical to their structured-disclosure reporting risk assessments.

Second is an awareness of validation and quality rules that can be applied to the structured disclosures. The machine-readability of the structured disclosures offers a huge benefit in the application of automated data-quality assessments. The data-quality rules freely provided by the XBRL US Data Quality Committee should be a filer priority consideration.

Third is the awareness that not all error types are covered by the current data-quality rules and that subjective tagging consideration may be outside of the scope of automated detection.

In short, reporting judgment remains a critical matter for filer attention, and filers can benefit from a growing body of formal and informal guidance, methods, tools, and understanding among accountants and analysts. Where this understanding remains weak, it is most commonly reflected in structured-data errors such as:

- Inappropriate extensions (e.g., creating an extension for a very common disclosure that has a standard element in the taxonomy)
- Incorrect element selection (e.g., tagging revenue disclosures with the discount rate tag)
- Disclosures not tagged (e.g., numeric values in the notes are not tagged)
- Using deprecated elements (e.g., use of “old” revenue tags despite the “new” tags available under a current revenue-accounting standards)
- Calculation relationships incorrect or missing (e.g., an asset component is not included in the calculation relationship for total assets)
- Scaling errors (e.g., reporting in billions in HTML and millions in XBRL)
- Context errors (e.g., inconsistent reporting periods, such as a third-quarter Form 10-Q with a fiscal-year-end date)

The existence of tag selection and usage errors may be an indicator that management is not sufficiently invested in the review and assessment of their structured-disclosure reporting processes.

For more on other common error types, staff observations, and staff guidance, please visit www.sec.gov/structureddata/osdstaffobsandguide.

Christine Tan, idaciti: The quality of the filings has improved. Some areas still require attention. Companies often switch tags from filing to filing but should really conduct a cost-benefit analysis of switching tags. The consequence of tag-switching is that it truncates the time series of a given line item.

Pranav Ghai, Calcbench: Extensions need attention.

Campbell Pryde, XBRL US: While data quality can always be improved, we have made a lot of progress, certainly since the program first launched in 2009. And quality began an even steeper upward trajectory in 2015, when the Data Quality Committee began publishing guidance and automated rules for issuers. One of the biggest areas of concern from the start was the use of negative signs on facts that should have been reported as positive. That error category alone has declined significantly, along with many other error types.

One of the biggest challenges we are seeing right now is for IFRS filers who are working with the IFRS Taxonomy for the first time. When a taxonomy is first used, often unexpected issues arise that need to be worked out. The more a taxonomy is used, the more quickly it matures and improves. To help move this



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process along, we have been developing validation rules for IFRS filers, in addition to the ones for US GAAP filers.

The good news is that we have learned so much from the US GAAP program that we can pinpoint the kind of rules which will quickly help foreign private issuers get on the right track, much faster than with US GAAP. For US GAAP filers, the areas that still need improvements are disclosures in the notes to the financials, to ensure consistency across filings.

J. Louis Matherne, FASB: Report quality improves every quarter in large measure through the collaborative efforts of market participants with the XBRL US Data Quality Committee. The FASB also participates in these efforts, listening to and leveraging the market's desire for data-quality improvements that can result in taxonomy improvements for identified issues. Additionally, the Data Quality Committee publishes validation checks that effectively enforce the guidance the FASB publishes in the Taxonomy Implementation Guides and Taxonomy Implementation Notes in the Taxonomy. All of this has resulted in primary financial statements that are measurably better. Disclosures, however, will be the next big challenge, as attention shifts from improving the statements to improving the notes. Disclosures are inherently more complex, and we know there are data-quality issues here to be addressed.

Lou Rohman, Toppan Merrill: The most significant improvement to XBRL quality has come from automated rules produced by the Data Quality Committee—a consortium of companies led by XBRL US. Registrants can run these rules free of charge prior to submitting XBRL, to identify and correct errors in the XBRL tagging. Tens of thousands of errors have been corrected due to these rules. However, many errors remain that cannot be caught by automated rules, and those are the areas that still require attention from registrants.

Overall, the quality of XBRL tagging is still not where it needs to be. The SEC has not imposed direct consequences for improper XBRL; as a result, despite the legal liability of submitting XBRL that communicates erroneous financial information, XBRL quality has not been a focus for some registrants.

How will Inline XBRL affect SEC filers and the investors who use the data?

Campbell Pryde, XBRL US: While there will be a learning curve for vendors and for filers, the Inline XBRL requirement will ultimately reduce the workload on issuers, because they will need to prepare only a single document. Inline XBRL will also help with data quality, because there will be no more duplication of reporting.

Pranav Ghai, Calcbench: It should improve the data quality, but I do not believe that it will be a magic bullet.

Christine Tan, idaciti: Inline XBRL will significantly improve the quality of the XBRL filings. This will be the case because errors made in the XBRL filing will



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EXPECT TO SEE MORE
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ON REPORTING ANALYTICS
AND INSIGHTS—MUCH AS
WE OBSERVE VIA SOCIAL-
KNOWLEDGE PLATFORMS

be obvious, since the XBRL data is embedded in the filing and can be easily exposed through additional analytics functionality that can be built on top of the inline viewer. Also, I think Inline XBRL can be used to improve efficiencies in the traditional audit process. The metadata in XBRL data can be used to help auditors reconcile balances, look for revisions in line items from filing to filing for a given period, and identify anomalies.

Mike Willis, SEC: Reduced duplication and cost, improved quality, and new capabilities are some Inline XBRL benefits for filers and investors. The freely available and open Inline XBRL format combines the previous duplicate and separate HTML- and XBRL-formatted reports into a single, human-oriented document with a familiar organization and layout, tightly coupled with a machine-readable dataset. In that context, it will reduce duplicative reporting and give filers one less report to worry about.

Second, the SEC's open-source Inline XBRL viewer includes a range of filters and search capabilities that should help filers, investors, and analysts to more quickly identify many common data-quality issues. Filters embedded within the Inline viewer offer filers the opportunity to more effectively identify and correct common errors during their draft-report review.

Third, the open-source nature of the Inline XBRL viewer enables add-on features and capabilities by market participants. This is an area to closely monitor, due to the innovations already appearing, such as:

- Leveraging the accounting-reference search feature to enable a disclosure-checklist capability, which assists in identifying topical disclosures present in (as well as those absent from) the report
- Using filters to quickly identify extensions and enable benchmarking of similar disclosure concepts as a quality-reference assessment
- Using structured disclosures to view time-series charting of numeric disclosures, including comparative visualizations with selected registrants (e.g., point-and-click on a number and see a time-series chart)
- Using the interactive capabilities of Inline XBRL to enable contextual presentation of additional analytical insights, such as comparisons of a filing's ratios with sector or industry or peer ratios, delivered directly "on top of the report"

Lastly, as Inline XBRL tools mature, the capabilities enabled will be impressive by any current context. The analytical results of artificial intelligence, risk, liquidity, compliance, and other modeling and analytics applied to reported disclosures will be contextually presented as a "heads-up display" enabling filers, analysts, and investors alike to quickly assess entity communications and alignment with their personalized expectations. We might also expect to see more market collaboration on reporting analytics and insights—much as we observe via social-knowledge platforms.

Lou Rohman, Toppan Merrill: For a person at a company filing XBRL who has less experience with the XBRL tagging, it will be easier to review the XBRL using Inline XBRL. This is because the tagging will be embedded directly in

the traditionally formatted financials. Anyone familiar with the traditional financials can also become familiar with the XBRL tagging. In addition, because Inline XBRL displays the XBRL financials in a human-readable presentation, tools will be developed that allow registrants and analysts to see the traditional financial statements and, at the same time, to consume the rich XBRL data that is directly embedded within those financials. Many of these Inline XBRL tools will become mainstream for analyzing financial disclosures.

What does the future hold for XBRL-tagged data and other forms of structured data in SEC filings? For example, do you expect the SEC's XBRL requirement to expand to other types of filings and be a standard part of new or amended disclosure rules?

Mike Willis, SEC: As your readers know, SEC staffers are advised not to predict future Commission decisions. I am enjoying my efforts at the Commission—so the short answer is “I don't know.”

That said, a very common set of outcomes and benefits accrues to all supply-chain participants in historical standardization market efforts (e.g., UPC/Bar Code, HTML, shipping containers, etc.). These benefits include lower costs, improved quality, enhanced processes, accelerated frequencies, increased volumes, expanded diversities, new capabilities, and new market opportunities. Further, as we are observing with the XBRL and other market-data-standardization efforts, they commonly start at the end of the supply chain and work back towards the beginning.

Other potential indicators of future SEC actions may include the increasing frequency of the inclusion of structured standards within ongoing Commission rulemaking and the Open Government Data Act. If you have ever filed in EDGAR, you may have noticed an accelerating trend toward immediate use of XBRL-tagged data within the filing process, not just as a website output. Disclosures are the critical raw material for analysis. Enhancing disclosure discoverability, availability, accessibility, and reusability seems like a very useful activity for the SEC, filers, service providers, and other market participants. Stay tuned.

Campbell Pryde, XBRL US: In the last few years, we have seen XBRL referenced as a standard part of many SEC proposals. Previously this was not always the case with SEC rules that involved using standards to improve reporting. In 2016, the SEC finalized two rules that opted for the creation of a custom XML schema instead of XBRL: *Regulation Crowdfunding for Small Businesses* and *Investment Company Disclosure Modernization* for reporting on Form N-PORT. We disagree with those rules because creating a new custom XML schema is essentially recreating what XBRL already provides—plus, it locks those reporting systems into using XML to prepare their documents. With XBRL, documents can be created in XML, JSON, HTML, or even CSV.

MANAGEMENT SHOULD UNDERSTAND: THEY ARE PERSONALLY LIABLE FOR STRUCTURED-DISCLOSURE ERRORS [JUST AS] THEY ARE LIABLE FOR THEIR TRADITIONALLY REPORTED DISCLOSURES

The more recent trend, though, is that the SEC is opting for XBRL. For example, in 2018 the SEC proposed that XBRL be required for reporting by variable annuity and life insurance companies, and in 2019, it proposed XBRL be required for Business Development Companies and for Closed End Funds. The SEC also just mandated this year, through the FAST Act, that public companies report their Form 8-K cover pages in XBRL format. We expect this trend to continue as the benefits of XBRL are recognized by both preparers and users of corporate data.

Christine Tan, idaciti: The future is positive. I see XBRL being expanded to other types of forms—such as the 8-K earnings release and proxy statements.


J. Louis Matherne, FASB: The more immediate needs are the tagging of earnings releases and the auditing of the Inline XBRL report. We know that many investors rely on the more timely earnings release for investment decisions and the 10-K/Q to confirm and flesh out earlier decisions. Having the earnings release available in a structured format is critical to broader use of XBRL-tagged data by many investors. I understand preparer concerns here, but even if the tagging were limited to the same data points included in the 10-K/Q, which is already modeled, that would be a big step forward for many investors.

An audit requirement for the Inline XBRL filing would evaporate much of the debate we have today about data quality. The introduction of Inline XBRL mitigates earlier concerns for providing assurance on the XBRL exhibit, which is separate from the official filing. It is now harder to argue against providing some assurance on the XBRL tagging, given that it is embedded in and is a part of the official filing.


In time, I expect all financial information and beyond to be provided in a structured format. This is how financial information is prepared and used today, but we have had this intermediate step that requires filers to convert their digital data to an analog format, and then the user has to convert it back to digital. This digital-to-analog-and-back-to-digital is terribly inefficient and error-prone. In a perfect world, we would go straight through, digital to digital.

Moreover, analysts rely on information beyond the scope of financial data. If we expect financial information to remain relevant to investors, we must be on an equal footing with these other data sources.

Part 1 of the responses appeared in the last issue of DIMENSIONS. The views expressed here are solely those of the respondents. Official positions of the FASB are reached only after extensive due process and deliberations. The SEC, as a matter of policy, disclaims responsibility for any private publication or statement by any of its employees. Therefore, the views expressed do not necessarily reflect those of the Commission or other members of the staff of the Commission.



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Primer on amending your 1934 Act forms

Abstracted from: *When, Why & How To Amend An Exchange Act Report*

The Corporate Counsel

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Get down to brass tacks: when must you amend? According to *The Corporate Counsel*, the requirement to amend a 1934 Act filing such as Form 8-K, 10-Q, or 10-K can arise from three sources: the instructions in the form itself; comments from SEC staff; or the discovery of a material misstatement or omission. Ten line items in Form 8-K call for certain information and an amendment to provide any of that information that was unavailable at the time of the first filing. Form 10-Q does not require such an amendment, but Form 10-K requires amending to include the disclosures mandated by 10-K's Part III if they are not timely filed in proxy materials. The form also provides, at the filer's option, amending to give the schedules specified in Regulation S-X's Article 12. Most of the 8-K and 10-K amendments are merely updates and do not trouble companies or shareholders by suggesting any neglect of disclosure duties.

Other amendments result from the SEC staff's review of 1934 Act filings and their issuance of comment letters that ask filers—albeit rarely—to correct materially deficient disclosure or to supply omitted disclosure. The requirement to amend may also result from a company's own discovery of deficiencies or omissions during a review of past filings.

Pin down the reasons to opt out ... or not. Immaterial mistakes in 1934 Act reports do not usually require amendments. Examples that might not require an amendment would include:

- Making trivial typos
- Not checking the Well-Known Seasoned Issuer (WKSI) box while having that status (that is, as opposed to checking the box without being a WKSI; *The Corporate Counsel* recommends amending in such an instance, suggesting it would be inappropriate to claim a "privileged status" that does not apply)
- Not putting an already filed exhibit in the report's exhibit index

Nevertheless, there might be powerful nonlegal reasons for correcting immaterial mistakes. The mistakes could, for example, prompt shareholders to ask embarrassing questions; or in lawsuits stemming from offerings, plaintiffs could argue that the errors indicate a carelessness which refutes a defense of due diligence.

A different question confronts the numerous companies that file reports well before the due dates. Assuming the report is correct on the filing date, no SEC rule requires an amendment simply because an important business development occurs thereafter but before the due date. An 8-K (or other public disclosure under Regulation FD) might, however, be required or prudent.

Do not let the SEC nail you for noncompliance. A company may not correct flawed disclosure in a 1934 Act report with a subsequent report, *The Corporate Counsel* cautions. Furthermore, failure to file a correcting amendment to the original report before its due date could result in the temporary loss of the right to use a short-form registration statement such as Form S-3 or the company's existing registration statements. If it neither incorporates by reference Part III disclosure from timely filed proxy materials into its 10-K nor timely amends the 10-K to provide that disclosure, the filer may not use Form S-3 for a year.

The SEC will sometimes decide that a report's mistakes or omissions, unless addressed in an amendment, render the report "materially deficient" and consequently unfiled. A company's assessment that an amendment is necessary does not often lead to such a decision by the SEC, which tends to be flexible in these circumstances. Among the small number of bright-line criteria that would lead to negative decisions is the failure to provide either an unqualified opinion by the outside auditors, mandatory audited or reviewed financials, or management's report on financial controls.

Know the nuts and bolts of the process. The amendment procedure is relatively clear-cut, advises *The Corporate Counsel*, although some quirks can complicate the process. Briefly, the mechanics are:

- Follow the instructions to update the ten designated line items in Form 8-K with previously unavailable data; do not file a new Form 8-K.
- Submit the amendment format, titled as "8-K/A" or "10-K/A."
- Do a separate filing for every report amended, except after obtaining a waiver to submit a Jumbo 10-K with several years' restated or delinquent financials.
- If an amendment's rationale is at all unclear, explain it to quiet any concerns of shareholders, analysts, and financial media that the company is in distress.
- Provide new CEO and CFO certifications when amending any report that requires them.
- File a new auditor's consent with audited financials.
- Have the company's "duly authorized representative" sign; although some filers have a majority of the directors sign, only the representative's signature is required.
- Include every amended line item's full text.
- Refile the whole report if there are certain flaws in mandatory CEO and CFO certifications (e.g., specifying the incorrect periodic report or omitting the date).
- State that the amendment speaks as of the original filing's date, since it need not update data that was correct when originally provided.

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RECENT DEVELOPMENTS

A view from the top: SEC Chair Jay Clayton on SEC data analytics and cybersecurity

By *DIMENSIONS* staff

The capital markets are following the SEC's lead in deepening their use of structured data such as XBRL. The agency's commitment to data technology extends from the staff to the highest levels. SEC Chair Jay Clayton confirmed this in a [keynote address](#) he gave at the June 4th regulatory conference held by the SEC's Philadelphia office. He reviewed current SEC practices in two areas: data analytics for the SEC's review and enforcement activities; and the security of data that it collects from filers.

Clayton's commitment

Since his appointment to the SEC leadership over two years ago, Mr. Clayton has vigorously sought to advance the SEC's use of structured data and leverage technology. In his first [congressional budget testimony](#) in 2017, he stated that the SEC must keep up with the accelerating data technology of the capital markets which it regulates. This technological arms race is an issue the chair understands well. While a partner at law firm Sullivan & Cromwell, he represented major financial institutions, including Goldman Sachs. It was therefore with strong authority that he told members of Congress how the money the SEC plans to spend on information technology "is quite modest, by way of comparison, to the amounts that the major Wall Street firms spend on their own information technology systems."

Soon afterward, in a [July 2017 speech](#), Mr. Clayton further mapped out his vision of the SEC's data analytics: "Technology is not just the province of those we regulate. The SEC has the capability to develop and utilize it, too. We apply sophisticated analytic strategies to detect companies and individuals engaging in suspicious behavior. We are adapting machine learning and artificial intelligence to new functions, such as analyzing regulatory filings."

Equally prominent during Mr. Clayton's leadership tenure has been the SEC's data security. The disturbing hack of the SEC's own EDGAR system in 2016—not [revealed](#) until the following year—brought home the need for the SEC to wield the same level of cybersecurity and transparency that it demands from issuers.

Data analytics: Detecting risks and fraud with NEAT, HAL, and ATLAS

Given this context, the [June 4th keynote address](#) offers an insightful window into the progress of the SEC's steadily advancing data analytics and cybersecurity. Mr. Clayton noted: "These challenges, which we have faced head on with our eyes wide open, make our data analytics work more important than ever." As an example, he cited the Office of Compliance Inspections and Examinations (OCIE), which performs the SEC's National Examination Program. "Data analytics is an increasingly important part of OCIE's risk-based program and OCIE has developed proprietary tools for analyzing data in support of the program."

OCIE's National Exam Analytics Tool (NEAT) enables the SEC staff to gather and examine datasets of trading records "to identify potentially problematic activity and better understand a firm's business during examinations." OCIE completed more than 3,150 examinations during fiscal year 2018, 10% more than in the prior year. While initially NEAT honed in on analyzing trades by investment advisors, the tool was later broadened to analyze trading records of broker-dealers and practices for countering money-laundering.

Another tool developed by OCIE is the High-Frequency Analytics Lab (HAL), which helps SEC staff in its examinations and oversight of market microstructure, including high-frequency trading. "HAL produces reports on SEC registrant and market behavior at relevant time resolutions down to microseconds," Mr. Clayton explained. "These reports help to identify registrants engaging in potentially unfair market practices, and to shed light on major market events."

The ATLAS initiative, developed by the SEC's Philadelphia office, OCIE, and the Division of Enforcement, "allows our staff to harness multiple streams of data, including blue sheets, pricing, and public announcements," he explained. The tool can look for insider trading before a major equity event, detect serial insider trading, and research historical securities prices.

The Division of Enforcement uses sophisticated data analytics, including trading-pattern recognition, to spot suspicious trading and violations of securities law. Mr. Clayton cited a recent case in which the SEC's use of these analytics led to [charging an investment banker](#) for allegedly misusing access to confidential information. It also created the Retail Strategy Task Force, which develops data-driven analytical strategies for detecting practices perhaps harmful to retail investors.

Turning to the SEC's own backyard, the chair reminded his audience that in January 2019 the SEC had [charged nine defendants](#) in connection with the 2016 hack of the EDGAR system. The defendants—including a hacker based in Ukraine; six individual traders in California, Ukraine, and Russia; and two entities—were accused of stealing nonpublic information to use in illegal trading. "This case required careful analysis of trading in the window between when the material nonpublic information was extracted and when it was disseminated to the public," he noted.

EDITOR'S NOTE: See also an [investigative report](#) issued by the SEC Division of Enforcement in October 2018, reminding public companies to consider cyber threats when implementing their internal accounting controls. Fraudsters posing as company executives or vendors used spoofed emails to dupe staff at nine public companies into sending money to the perpetrators' bank accounts. The report warns that when a public company is a victim of a cyber-related fraud, it might have violated the federal securities laws by failing to establish a "sufficient system of internal accounting controls."

Data security: With great analytics comes great responsibility

Mr. Clayton's reference to the case against the EDGAR hackers offered a perfect transition to his next topic: data security at the SEC. While praising the SEC's progress on data analytics, he asserted that "it is very important to recognize the great responsibility we have with respect to the data entrusted to us by our registrants and the public."

After the EDGAR hack was discovered, the SEC launched several remedial initiatives to close the gaps that had allowed the intrusion. The Consolidated Audit Trail (CAT) is a vast database that lets regulators track all trading activity in equities and options throughout markets in the United States. The vulnerability of sensitive investor data held in CAT is a concern, so to shrink the footprint of this personally identifiable information (PII) and make it easier to protect the data, the SEC supports ending the retention of Social Security numbers in CAT, while still letting SEC staff monitor the activity of individual traders across multiple markets and broker-dealers. The SEC also [delayed submission deadlines](#) for filing Form N-PORT (used for reporting investment funds' portfolios) to ensure the EDGAR system would handle the data securely.

New cybersecurity officials

Two key cybersecurity positions at the SEC have now been filled. A former Morgan Stanley executive, Gabriel Benincasa will serve as [the first Chief Risk Officer](#), tasked with coordinating risk management across the SEC. Mr. Clayton has also filled a vacancy on his own staff: Kevin Zerrusen, a 30-year veteran of the CIA who ran that agency's cyber center, is now the chair's [Senior Advisor for Cybersecurity Policy](#).

About *DIMENSIONS*

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