



October 21, 2024

Chair Gary Gensler
Commissioner Caroline A. Crenshaw
Commissioner Hester Pierce
Commissioner Jamie Lizarraga
Commissioner Mark T. Uyeda
Securities and Exchange Commission
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Washington DC 20549-1090

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RE: Proposed Rule: Financial Data Transparency Act Joint Data Standards
SEC File No. S7-2024-05

Dear Chair Gensler and Commissioners:

This letter is prepared in conjunction with our comment letter submitted in response to the Financial Data Transparency Act Joint Data Standards, SEC File No. S7-2024-05. It addresses specific questions raised by SEC Commissioner Pierce in the statement, Data Beta: Statement on Financial Data Transparency Act Joint Data Standards Proposal¹, dated August 2, 2024. We appreciate the opportunity to respond to the Commissioner's questions which raise many important issues that are pertinent to implementation of the FDTA.

Costs of FDTA implementation

Question: What are the total direct and indirect costs of adopting the contemplated data standards?

Cost to Agencies implementing a standards program

It is difficult to gauge the costs of FDTA implementation for regulators given the great variability in scope of the various data collections. We can, however, point to an example of a recent regulatory implementation that may provide guidance on costs that Agencies may incur. The Federal Energy Regulatory Commission's (FERC) data modernization project² was conducted in 2021. It included project management, development of an XBRL taxonomy and (business) validation rules, training for internal staff, upgrades to FERC's electronic filing system, data consumption tools and APIs, conversion of 10 years of historical data from Visual FoxPro files,

¹ Data Beta: Statement on Financial Data Transparency Act Joint Data Standards Proposal:
<https://www.sec.gov/newsroom/speeches-statements/peirce-statement-financial-data-transparency-act-080224>

² See USASPENDING.gov, Award Profile Contract Summary, Department of Energy:
https://www.usaspending.gov/award/CONT_AWD_89603019P0018_8960_-NONE_-NONE-

and development, testing and implementation of a deployment plan, The program has cost \$6 million to date, and is estimated to total \$7.4 million spent over six years when complete. The XBRL taxonomy for FERC reporting has ten forms with 303 individual schedules.

The FERC noted in a recent webinar³, *“We delivered this project on time and on budget... This was a glowing success for FERC because it didn’t take more time and wasn’t much more expensive than what was considered in the original spend.”*

We estimate the cost of the program for the collecting Agency per discrete fact (datapoint) collected to date, is approximately 10.35c since the program began. Maintaining the program going forward is substantially less than the initial build, so the cost per datapoint collected will decline over time.

Question: Do these costs vary based on factors such as firm size or type of regulatory filing?

Cost to reporting entities

The cost and resources needed to prepare data in machine-readable format for an individual reporting entity, which could be a government entity, a credit union, a public company, or any entity reporting to one of the Agencies, will vary depending on a number of factors:

- The complexity and amount of data needed to be reported. For example, financial statements along with footnotes to the financials will be more costly to prepare than a simpler forms-based submission.
- The type and structure of the reporting entity, and the level of reporting required. For example, governments have multiple reporting units and often report financials representing government-wide statements, proprietary funds statements and governmental fund level statements. Furthermore, within a single set of financial statements, a government may be required to report data for separate funds and component units.
- The size of the reporting entity. Large entities with more robust budgets and staff may need additional features on tools they use to allow more than one individual to access, review features, etc.
- The number of times a reporting entity has prepared data in standardized format. The first-time preparing data in machine-readable, standardized data format will be the most time-consuming and labor-intensive with the need to select the appropriate XBRL concept (tag). Subsequent reporting periods will be significantly easier, because of the experience acquired, and because many reporting applications give entities the ability to view their previous period submission of data and update prior year numbers and narratives rather than begin from scratch. While entities do not report the same information each period, this “template” approach is common because usually entities report using the same XBRL concepts each period and simply need to update the facts.

³ See FERC: How Regulators Use Technology to Improve Efficiency: <https://xbrl.us/events/240911/>

- Entities that report on an annual basis may face more challenges than those reporting more frequently because they only perform the reporting task once a year, compared to other entities that may report every quarter. A higher frequency of reporting reinforces learning with less chance of institutional learning loss a year later.
- Many government units today prepare financials using older systems that may be in need of modernization. There may also be variability between government reporting systems of general-purpose governments compared to special districts which are generally smaller with fewer resources.
- While every state government follows US GAAP, some states do not require their local government units to report under US GAAP. For example, local municipalities in New Jersey and Kentucky adhere to state-specific accounting standards. The FDTA does not require reporting entities to change what they report. Those non-GAAP reporting entities may face unique challenges which should be taken into consideration.

Keeping these factors in mind, cost information is available from other reporting domains that may provide insights into the ultimate cost for governments and other entities that will be tasked with reporting in the FDTA roll-out. Three examples are described below.

Example 1. Small filers preparing forms-based data.

For small filers submitting forms-based data to the FERC, the cost to prepare their filing such as Form 6Q below, was as low as \$1000 for four filings per year. Forms-based data does not allow the inclusion of footnotes or custom line items.

| Name of Respondent IMTT-Pipeline, LLC | | This Report Is: (1) <input checked="" type="checkbox"/> An Original (2) <input type="checkbox"/> A Resubmission | Date of Report 06/30/2024 | Year/Period of Report End of: 2024/ Q2 |
|---|---|---|---|---|
| Comparative Balance Sheet Statement | | | | |
| <p>1. For instructions covering this schedule, see the text and instructions pertaining to Balance Sheet Accounts in the USofA. The entries in this balance sheet should be consistent with those in the supporting schedules on the pages indicated.</p> <p>2. On line 30, include depreciation applicable to investment in system property.</p> | | | | |
| Line No. | Item (a) | Reference Page No. for Annual (b) | Current Year End of Quarter/Year Balance (in dollars) (c) | Prior Year End Balance 12/31 (in dollars) (d) |
| | CURRENT ASSETS | | | |
| 1 | Cash (10) | | | |
| 2 | Special Deposits (10-5) | | | |
| 3 | Temporary Investments (11) | | | |
| 4 | Notes Receivable (12) | | | |
| 5 | Receivables from Affiliated Companies (13) | 200 | | |
| 6 | Accounts Receivable (14) | | 207,199.48 | (327,932) |
| 7 | Accumulated Provision For Uncollectible Accounts (14-5) | | | |
| 8 | Interest and Dividends Receivable (15) | | | |
| 9 | Oil Inventory (16) | | 104,172.38 | 184,944 |
| 10 | Material and Supplies (17) | | | |

Example 2. Small public companies prepare financials and footnotes to the financials. An AICPA study⁴ estimated the average price of XBRL preparation for small US companies in 2017 was \$5,476⁵ per year to prepare four financial statement filings. Note that this figure does not include consulting charges which many filers may need early on in the process; some may no longer need consulting after the first few filings. Large reporting entities are likely to have higher costs than small entities due to the complexity of their financials and of additional features they may opt for in their reporting and disclosure management tools, for example, the ability for more than one individual to access the filings for review and editing which may involve permissioning features.

Obtaining more current XBRL-only pricing is difficult today because of the widespread use of disclosure management tools which incorporate XBRL preparation along with many other reporting management features; the XBRL tagging portion of the tool cannot be separated out.

⁴ AICPA, XBRL costs for small reporting companies have declined 45% since 2014: <https://us.aicpa.org/content/dam/aicpa/interestareas/frc/accountingfinancialreporting/xbrl/downloadabledocuments/xbrl-costs-for-small-companies.pdf>

⁵ Note that this figure is not adjusted for inflation and covers the cost of the tool alone. It does not include consulting that may be required.

The practice of “bolt-on” tools, which help a company convert their corporate reports into Inline XBRL format without changing any other aspect of their reporting arrangements or workflow, was once more common but is increasingly being replaced by disclosure management tools. Trends in the use of disclosure management tools are addressed later in this letter.

Example 3. Small businesses report tax information.

Her Majesty’s Revenues & Customs (HMRC) Companies House⁶ in the United Kingdom is one regulator that requires over 4.5 million companies⁷ to report tax data in structured (XBRL) format today. Companies House reporting entities include doctor’s offices, drug stores, restaurants, and other small businesses, which are likely to be as resource-constrained as small government entities in the U.S. The commercial market of accounting applications already used by these small businesses, has addressed the issue in large part by incorporating XBRL preparation and export into their applications.

How have standardized data costs changed over time? Will these trends continue?

The SEC program for public companies provides insights into costs and resource requirements for other types of reporting entities such as governments, credit unions, or banks. As noted earlier, costs tend to be higher the first time an issuer prepares data in structured format given the learning curve, and because the second time preparing data in structured format, the issuer can build on the work completed during the first filing period. For example, the appropriate “tags” have already been identified, and software usually allows reporting entities to view and revise the previous set of data reported as the XBRL “tags” used for one period are often the same the following quarter or year.

Pricing has also declined for structured data (XBRL) reporting tools and services. The AICPA study⁸ referenced earlier was conducted in 2014 and again in 2017. 2017 estimates were 45% lower than estimates in 2014.

Costs are likely to continue to decline because of the expansion in regulatory reporting requirements calling for data standardization. The FERC, for example, began a new data standards (XBRL) program for utilities in 2021; and they are soon to introduce another XBRL program calling for XBRL prepared in CSV format (XBRL-CSV). Products that prepare data in Inline XBRL can also prepare data in XBRL-CSV, or XBRL-JSON, or XBRL-XML.

Separately, European publicly listed companies today report financial data in XBRL format, and starting in 2026, both publicly listed and private companies in Europe will be reporting climate data to European Union (EU) authorities in structured format. This program is phasing in between

⁶ UK HM Revenue & Customs, XBRL guide for businesses: <https://www.gov.uk/government/publications/xbrl-guide-for-uk-businesses/xbrl-guide-for-uk-businesses#introduction>

⁷ UK Companies House Official Statistics, Incorporated companies in the UK April to June 2024: <https://www.gov.uk/government/statistics/incorporated-companies-in-the-uk-april-to-june-2024/incorporated-companies-in-the-uk-april-to-june-2024>

⁸ AICPA, XBRL costs for small reporting companies have declined 45% since 2014: <https://us.aicpa.org/content/dam/aicpa/interestareas/frc/accountingfinancialreporting/xbrl/downloadabledocuments/xbrl-costs-for-small-companies.pdf>

2026 to 2029 with the largest public companies in the first phase. More than 20 countries that follow the International Financial Reporting Standard (IFRS) are working towards adoption of digital (XBRL) climate reporting as well, using the International Sustainability Standards Board (ISSB) Taxonomy. The first of these climate reporting mandates is expected in 2026 as well.

The increasing demand for XBRL data, and thus, XBRL tagging tools, has already initiated an expansion of the market for tools, which in turn leads to greater competition. This drives down pricing, and encourages the development of more streamlined, efficient applications. The economies of scales enabled by standardization is one of the primary reasons they are so effective.

When public companies began XBRL preparation in 2009, many relied on outside consultants. Today, most have transitioned to disclosure management applications which include XBRL preparation; these tools have also introduced quality, control, and efficiency enhancements that make the entire reporting and preparation process more effective. According to a PwC report⁹ on integrated reporting, the increasing use of disclosure management tools, sometimes called the “last mile” of reporting, has been driven by expanding financial and non-financial (for example climate) reporting requirements, global capital financing, the expanding use of Artificial Intelligence, and the partial or total migration that many organizations have made to cloud technologies.

The disclosure management market is estimated at \$1.2 billion in 2024 and is expected to grow at a CAGR of 16.5% by 2029, as noted in the report, Disclosure Management Market Size & Share Analysis - Growth Trends & Forecasts (2024-2029)¹⁰. The report goes on to note, *“The North American disclosure management market is expected to grow significantly, owing to technologically advanced countries like the United States and Canada. Companies are dealing with increasing complexity in the reporting process characterized by different file formats, causing the demand to rise. The quicker report preparation and financial statement disclosure, report comparison, tracking changes made by any user, and complete restoration of earlier versions provide greater control to the users, propelling demand in the market.”*

This viewpoint is echoed in a 2023 Journal of Accountancy article¹¹ which notes that *“...investing in technologies that automate core processes and streamline user experience will be paramount to building - and retaining - a skilled and agile finance team.”*

Corporate entities are leading the way in embracing disclosure management tools and governments are beginning to follow suit as they recognize how they can benefit too. Workforce shortages in public sector accounting and finance are also driving the move towards greater

⁹ PwC, The need for integrated reporting during times of change: <https://www.pwc.com/gx/en/services/audit-assurance/capital-market/digitising-finance/disclosure-management.html>

¹⁰ Mordor Intelligence, DISCLOSURE MANAGEMENT MARKET SIZE & SHARE ANALYSIS-GROWTH TRENDS & FORECASTS (2024-2029): <https://www.mordorintelligence.com/industry-reports/disclosure-management-market>

¹¹ Journal of Accountancy, “3 trends that will reshape accounting and finance in 2023”, March 15, 2023: <https://www.journalofaccountancy.com/news/2023/mar/3-trends-reshape-accounting-finance-2023.html>

automation through technology. As noted in a recent Governing Magazine article¹², “*Departments are struggling to recruit and retain the next generation of workers, leading to lags in reporting, big backlogs for processing local taxes and licenses and a lack of auditors. The workers who are still around are getting older.*” This sentiment was echoed in a Government Finance Officers Association (GFOA) report¹³ from 2022, which noted, “*Demand for state and local public finance officers is outstripping the current supply of workers in the sector.*” Greater use of technology and automation to conduct more effective research can reduce the hiring challenge because it improves productivity on the job, but even more importantly it can make public sector finance jobs more attractive to younger, tech-savvy recruits.

The advent and rapid adoption of disclosure management tools has been facilitated by the existence of standardized data. The benefits of these applications extend well beyond XBRL preparation requirements. Disclosure management tools allow reporting entities to review prior period reported facts and narrative disclosures, so that they can revise facts with updated information efficiently, not to encourage boilerplate submissions.

Smaller reporting entities, however, may not have the resources or even the need for disclosure management solutions. Small governmental units may prepare their financials in a spreadsheet that is then converted to PDF, or in many cases, rely on their audit firm or a consulting firm to prepare their annual financial report or annual comprehensive financial report. This is not allowed for publicly traded companies. Different pricing models that support a large market of small, resource-constrained entities already exist in other reporting domains and provide a helpful model that can be used for FDFTA programs where small entities must be considered. As mentioned earlier, HMRC Companies House¹⁴ is one regulator that requires over 4.5 million companies¹⁵ to report tax data in structured (XBRL) format today. The accounting software used by these small businesses has XBRL export features to allow them to comply efficiently and cost-effectively.

Question: How much of the FDFTA compliance burden is likely to stem from the one-time cost of setting up new data systems as opposed to ongoing compliance costs?

Reporting entities preparing their data in structured, standardized format for the first time are likely to have a learning curve as they work to understand the taxonomy and how to identify the appropriate concepts to match the data they are reporting. Documentation like web-based tools for viewing the hierarchical structure of taxonomy concepts aid in this process (i.e.

¹² See Governing Magazine, July 3, 2024, The Biggest Challenge in Public Finance May Not Be Money:

<https://www.governing.com/workforce/the-biggest-challenge-in-public-finance-may-not-be-money#:~:text=Workforce%20shortages%20are%20affecting%20many,few%20candidates%20replacing%20aging%20employees.&text=In%20Brief%3A,still%20below%20pre%20pandemic%20numbers.>

¹³ See GFOA, September 2022, Meeting Demand for State and Local Public Finance Jobs:

https://gfoa.org/cdn.prismic.io/gfoaorg/5c3e1746-08da-43fa-af63-1445e97db05b_GFOA-Lightcast-Report.pdf

¹⁴ UK HM Revenue & Customs, XBRL guide for businesses: <https://www.gov.uk/government/publications/xbrl-guide-for-uk-businesses/xbrl-guide-for-uk-businesses#introduction>

¹⁵ UK Companies House Official Statistics, Incorporated companies in the UK April to June 2024:

<https://www.gov.uk/government/statistics/incorporated-companies-in-the-uk-april-to-june-2024/incorporated-companies-in-the-uk-april-to-june-2024>

<https://xbrlview.fasb.org>) and often, report preparation software also includes this kind of functionality. Subsequent reporting efforts are significantly easier, particularly when entities are tasked with reporting the same information each year or quarter, for example, governments submitting an Annual Comprehensive Financial Report, or banks preparing quarterly financial statement filings.

Widely used disclosure management tools give preparers the means to re-use an XBRL preparation “template” that reflects their prior year or quarter so they can update an existing template with new numbers and new narratives for the next reporting period. Because the data structure is standardized, subsequent report preparation is streamlined, as the structure of the report and the data from the prior period is often rolled-forward. This represents an improvement in terms of time savings compared to the multi-stage process that occurs today, where a report may be prepared in Excel or Word, combined into a single document, and then converted to PDF.

Structured data also enables automated validations for accounting rules (checking that totals and subtotals are correct, that a fact reported on one statement matches the same fact reported on another statement, etc.), reasonableness, completeness, and other business rules that ensure higher data integrity. This approach is followed today by public companies and public utilities through the SEC and FERC programs, respectively. Validation rules can improve the efficiency of report preparation as they can automatically point out inconsistencies automatically.

Question: Will certain types of entities, such as municipal issuers, bear disproportionate FDTA-related costs? If so, what can we do to reduce those costs?

Initially, reporting entities like municipal issuers, as the first “link on the reporting chain” will bear greater costs of data standards implementation although this will decline over time as it has for corporate issuers. The immediate beneficiaries will be regulators and other data users.

Regulators and the market can help issuers by considering different cost models as discussed earlier. The federal government or state regulators could negotiate the bulk purchase of low-cost software tools for the smallest issuers. This approach could provide an easier on-ramp for small entities; however, we encourage regulators that take this approach to ensure reporting entities are able to choose from a variety of options to maintain the competitiveness of the market.

FASB accounting support fees¹⁶ are assessed on and collected from issuers of publicly traded securities, as those issuers are defined in the Sarbanes-Oxley Act and are allocated based on the average market capitalization of each issuer. These funds support the accounting standard setting process as well as the XBRL taxonomy development process. The FASB Project Staff, which is responsible for setting accounting standards, works closely with the FASB Taxonomy Staff developing accounting standards, modeling them into the FASB GAAP Taxonomy and publishing them together during a public exposure period (read more about this approach¹⁷). This process

¹⁶ FASB Accounting Support Fees: <https://accountingfoundation.org/page/pageContent?pageId=/about-us/faf-fasb-gasb-how-we-are-funded/accounting-support-fees.html>

¹⁷ Harmonizing accounting and data standards: <https://xbrl.us/harmonizing-accounting-data-standards/>

has been in place since 2018 and it allows the Taxonomy Staff to inform the Project Staff about the impact that improvements to accounting standards may have on the Taxonomy, on constituents and on the resulting data. An accounting support fee¹⁸ is also assessed by FINRA to fund the annual budget of the GASB. FDTA compliance could be supported by an addition to this fee.

During a recent event conducted by XBRL US in July 2024, we solicited input from market participants about the FDTA roll-out during brainstorming sessions¹⁹. Participants felt that there was an opportunity for different cost models to be developed, for example it was suggested that the federal government should consider creating a platform that helps the smallest local governments comply easily and at low cost. The IRS' Direct File²⁰ pilot - albeit for individual taxpayers - illustrates a means to allow certain filers access to a no-cost solution. While this may be challenging for complex reports like financial statements, it shows a creative solution offered by the government to keep costs low for certain kinds of reporting. Phase-ins could be considered as well based on size of entity or type of information reported.

Providing a “no-frills” solution at zero cost is a good step, however we urge regulators to encourage commercial applications to be made available as well. Constraining reporting entities to using a single application eliminates the benefits of a competitive marketplace. Access to multiple options for reporting ensures the lowest possible cost, and robust tools for reporting entities.

Benefits of FDTA implementation.

Question: What are the potential benefits of FDTA implementation?

Access to more granular, automated data for all reporting entities

With proper implementation of a single semantic data model structure, the FDTA will result in data that is more timely and easier to process because it can be consumed automatically and understood by machines. Investors and data analytics providers have stated that they prefer public company data in XBRL because it offers certain benefits not found in other datasets. These benefits are supported by quotes from several data and analytics providers that were recorded during a video interview²¹. While the quotes refer to SEC reported data from public companies, the same benefits can be gained by municipal analysts and investors if government data were available in the same format:

¹⁸ FINRA Regulatory Notice 24-07: 2024 GASB Accounting Support Fee to Fund the GASB: <https://www.finra.org/rules-guidance/notices/24-07#:~:text=The%20GASB%20Accounting%20Support%20Fee%20is%20assessed%20on%20a%20quarterly,Fee%20from%20its%20member%20firms.>

¹⁹ Blog, Muni Bond Markets Weigh in at GovFin 2024: <https://xbrl.us/govfin2024-muni-market-attendee/>

²⁰ See IRS Direct File: <https://www.irs.gov/newsroom/irs-makes-direct-file-a-permanent-option-to-file-federal-tax-returns-expanded-access-for-more-taxpayers-planned-for-the-2025-filing-season>

²¹ Video: Better Data for Analysts and Investors: <https://xbrl.us/news/analyst-video/>

- Improves access to small issuer data. This can be especially beneficial to small government municipal bond issuers that have little visibility. Fund managers are generally compelled to focus on large issuers to meet client demand, often to the detriment of smaller issues. With data from small and large entities available in the same machine-readable format and at the same level of granularity, there is a greater opportunity for small issuers to gain visibility and investors:
"... [with XBRL] there's no difference in the availability of data between large and small companies." Pranav Ghai, CEO, Calcbench
- Allows access to more detailed, granular data:
"[accessing data in the footnotes to the financials] is not that easy to do unless you have access to structured data, in this case XBRL...with data available in the XBRL format, we can extract data from the footnotes in seconds. From one company, from thousands of companies." Pranav Ghai, CEO, Calcbench
- Increases ease of data processing. Standardized, structured data enables automation which ultimately results in data being made available to governments, regulators, researchers, and citizens less expensively with greater granularity and potentially higher data integrity:
"Extracting data from an HTML document takes at least 20 minutes, from a good quality PDF, takes around 30 minutes, from an image around 50 minutes. Data pulled from an XBRL file, though, can be extracted in 1 to 2 seconds... let us focus on better analytics rather than scraping data from documents." Adrien Cloutier, Global Director of Equity Data, Morningstar

Academic research has shown that as-reported corporate data in XBRL is more timely, granular, and authoritative, and has greater predictive qualities than data that must be manipulated, standardized, and normalized by data providers. A study²² conducted by Penn State University found that XBRL data is better at predicting future stock returns than commercially created data that is manipulated to become interoperable.

Today, government financial data is only available by extracting data from PDFs or by purchasing costly data licenses from commercial entities (which have performed the labor-intensive data scraping, manual vetting, and normalization necessary today to ready the data for use). When a single semantic data model structure is implemented, businesses, governments, and researchers will have access to granular, inexpensive data as well.

When this data is freely available from regulators in structured, standardized form, anyone can extract and use the data. For example, a US-based insurance company transitioned away from manual data entry of corporate financial data they use for benchmarking and analysis, to directly accessing XBRL data from the SEC which the company now automatically extracts into its internal

²² Are XBRL data better at predicting future stock returns? Smeal College of Business, Penn State University:
<https://xbml.us/xbml-better-at-predicting/>

data analytics platform. They found significant benefits from access to more granular, timely data, and from redirecting employee time to higher value work. They estimated a 150% ROI in year one of the implementation²³.

Better data integrity and processing efficiency gains.

The Federal Deposit Insurance Corporation (FDIC) began collecting data from banks using a single semantic data model (XBRL) in 2005. Their implementation resulted in immediate efficiency gains for members of the Federal Financial Institutions Examination Council (FFIEC)²⁴ including²⁵:

- 95% of data received met FFIEC validation requirements.
- 100% of data received met FFIEC mathematical validation requirements versus 70% in the legacy system.
- Data was publicly available immediately after calendar quarter end, versus weeks later in the prior legacy system.
- Staff productivity in handling bank data increased 10-33%.
- Data could be distributed to end users at agencies within one hour versus within several days in the legacy system.

Economies of scale for reduced cost, more competition, better tools for all

When the semantic data model structure is used, software applications become more commoditized and interchangeable. Software companies do not have to build custom products and processes for each data collection. One tool can support multiple types of reporting entities and reporting requirements. The software company's cost of tool development and maintenance can be shared across many reporting entities and the competitive nature of the market means that those savings are passed down to reporting entities.

Data collected can be shared, inventoried, commingled, and compared across states, giving governments significantly greater insights into how to manage budgets, set policies, share ideas, and identify which programs are more effective than others. Taxpayers can more easily learn how their governments are spending money, and which programs are performing well. They can hold governments accountable for what they spend.

Lessons can be learned from the SEC's public company implementation of XBRL reporting. When corporate data became available in XBRL format, many new data and analytics companies came on the market because the structured data was freely available and could be automatically extracted and used without the need for manual data entry and review. This opening of the market lowered the cost of data to all data consumers.

The proposal as written however, gives Agencies the flexibility to create custom schemas which will result in data sets that are not interoperable. Data sets that are not interoperable require significant mapping and manipulation to enable comparison, sharing, or searching in the same database environment. The cost of data manipulation adds to the cost of analysis, and often

²³Custom Data Collection with Standardized Data: Liberty Mutual Surety Case Study: <https://xbrl.us/research/data-collection/>

²⁴ See FFIEC: <https://www.ffiec.gov/about.htm>

²⁵ See FFIEC, Improved Business Process Through XBRL: A Use Case for Business Reporting: <https://xbrl.us/wp-content/uploads/2007/12/20060202FFIECWhitePaper.pdf>

means that data from large entities is extracted and used, while small entities are ignored because it's just too costly to extract and manipulate the entire universe of securities. Our comment letter on the rule proposal outlines our objections to this approach and recommendations on how the FDTA can be successfully implemented.

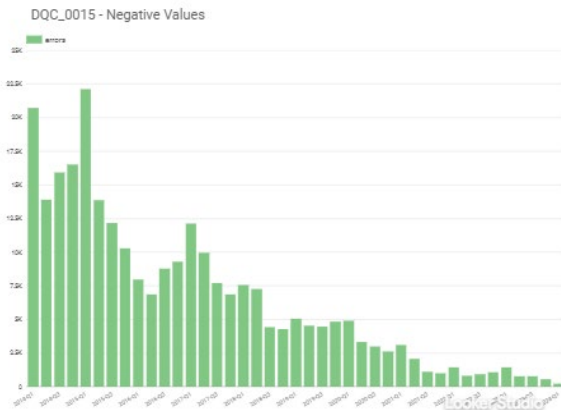
Question: How could the Commission maximize the utility of financial regulatory information filed in compliance with the FDTA-mandated data standards? For example, should the Commission work to reduce error rates in structured data filings?

Standardized, structured data produced through a rigorous implementation of the FDTA will lead to much easier review and vetting. Automated validation rules can be created to identify inconsistencies which can be corrected prior to submitting reports to the regulator. The nature of structured data enables the creation of very detailed rules that can instantly check for errors and inconsistencies such as values that should be reported with a particular sign (positive or negative), facts that are required to be reported and missing, facts that should or should not be reported when another fact is reported, as well as reasonableness checks and assertions that ensure that accounting standard rules are followed correctly. Automated rules can be used in conjunction with attestation checklists already in use.

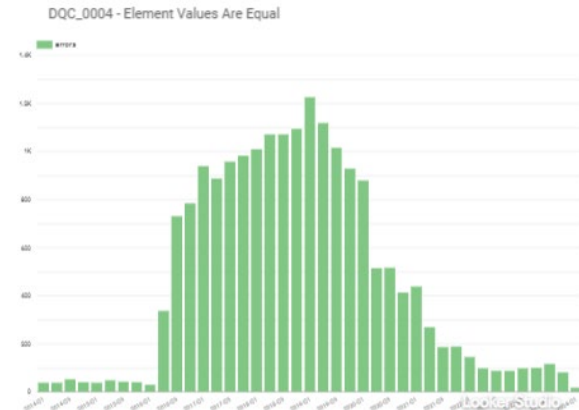
Precedent for this process exists today for public company reporting to the SEC and utilities reporting to the FERC. Public companies have had access to freely available data quality checking rules since 2015; these rules are now incorporated into the US GAAP Taxonomy, leveraged by most reporting applications used by public companies, and triggered in the SEC EDGAR System when filings are submitted.

These rules have improved the quality of data reported as issuers use them to correct problems during the report creation and review process. Tracking of these errors over time shows the steep decline in errors since rules were introduced and implemented.²⁶ The graphs below show the decline in errors since the rules were first introduced for facts that were reported as negatives but should have been positives, on the left; and for facts reported that did not meet the accounting calculation that Assets must always equal Liabilities plus Shareholders' Equity.

²⁶ Aggregated Real-time Filing Errors: <https://xbrl.us/data-quality/filing-results/dqc-results/>



Elements that should not be reported with negative values.
Documentation includes a list of elements tested.



Assets equal liabilities plus shareholders' equity.

These rules were created by a nonprofit industry-driven consortium called the Data Quality Committee of the Center for Data Quality²⁷ and are used today by most SEC reporting entities that use the US GAAP and the IFRS XBRL Taxonomies. Similar error reductions are found for many other rule types that the Data Quality Committee has created and published.

They are developed and maintained on a small budget and made freely available to all issuers. This approach could be adopted for government reporting as well, as an industry-driven initiative that coordinates its efforts with the tools market, the standard setter, and the reporting community.

Government financial statements are complex and can follow different accounting principles; and reported facts may appear on more than one statement. For example, many items on the Statement of Net Position (for government-wide financials) should match certain items on the Proprietary Funds Statement of Net Position, unless there is a required adjustment. Data in unstructured format, like government financial statement data reported in PDF files today, can only be validated through manual checking. Vetting, if any is performed, is likely only as a “spot check” and cannot be scaled up to cover many filings. The availability of this data in structured format would allow **every** financial statement to be automatically checked for a base level of data accuracy. Rules can be established that alert reporting entities of any discrepancies so they can be corrected before sending on to regulators, citizens, and investors.

²⁷ See Data Quality Committee: <https://xbrl.us/data-quality/center/committee/>

Question: In light of the Commission’s broad discretion in implementing the second phase of FDTA rulemaking, are there areas where full application of these proposed data standards would be particularly helpful or unhelpful?

The municipal bond issuance market will gain from data standards implementation. Bond issuers submit a range of information to the Municipal Securities Rulemaking Board (MSRB) Electronic Municipal Markets Analysis (EMMA) system. During the focus group-type sessions mentioned earlier that were conducted at the XBRL US GovFin 2024 conference, participants reported that financial statements, official statements, material event notices, broker dealer disclosures and portions of the audit report were of great interest to data users and would be more valuable and useable in structured format.

Standardizing this data, and use of the LEI in conjunction with data standardization can also improve the ability to search on the EMMA system. Today, the ability to link the obligor, the issuer, and the security is extremely challenging because of the paper-based structure of the content submitted to EMMA. Use of the LEI combined with the linking characteristics of the XBRL standard could resolve that issue and vastly increase the efficiency of using the EMMA system. This approach is explained further in the XBRL US blog and detailed paper, *Identifying the Obligor for Municipal Securities*²⁸.

The single semantic data model structure within which the Agencies develop and share schemas for collecting information will result in long-term benefits to filers and regulators by reducing redundancy in reporting and data governance. Beyond the time and material costs of transition, the quality of data will improve while its cost to produce and manage collection will decline. Benefits will include:

- Data produced will be machine-readable and machine-understandable, eliminating the need for manual data entry and vetting.
- Data will be interoperable and shareable and can be inventoried and maintained together in a database.
- The opportunity for automated checking, which can review all data reported and can be performed consistently and at a low cost.
- Economies of scale will reduce cost for regulators, reporting entities and data users.
- Flexibility for Agencies to transition to new data transmission formats in future, without being locked into particular technologies
- Enables easier updating of reporting requirements by the accounting standard setter or the Agency

Question: What could the benefits of interoperability be in the intermediate and longer term? What level of interoperability is necessary to achieve these benefits?

Interoperable data based on a single semantic data model structure can be readily commingled, shared, and inventoried; and can be managed using the same applications to prepare, collect,

²⁸ See *Identifying the Obligor for Municipal Securities*: <https://xbrl.us/identify-municipal-obligor/>

extract, and analyze. These attributes of interoperable data can reduce data management costs for the federal government and for every other data user; and will facilitate access to more consistent, granular, and understandable data. XBRL US, for example, maintains a database that is updated every 15 minutes with financial data from public utilities, public companies and companies reporting to the European Union²⁹. This is possible with a small technical staff because of the structured nature of the data reported.

Reported data is either interoperable or it is not interoperable. The attempt to map datasets to each other is costly and labor-intensive, and the mapping process is likely to introduce errors and require manual review to ensure data integrity. Mapping must be performed by every data user and data collector, thus exponentially increasing the level of work required. Furthermore, separate mapping exercises may result in inconsistencies across datasets and no single source of “truth.”

What are the largest hurdles to interoperability of financial regulatory data across financial regulators? How should we address those hurdles?

The biggest hurdle to interoperable data is allowing data to be reported using custom designed schema; or in not requiring a schema for data at all, but in permitting data to be conveyed in data transmission formats such as CSV or PDF/A, as is currently proposed.

Collecting data using multiple custom schemas is problematic as the schemas will need to be mapped to achieve some measure of interoperability. This is explained in greater detail in the rule proposal comment letter. Reporting data in data transmission formats (like CSV) without an associated schema or taxonomy may produce machine-readable *documents*, but not machine-readable *data* that can be unambiguously understood from computer to computer. These hurdles can be addressed if data is collected using a single semantic data model structure which will result in data that is interoperable and a process that is efficient.

Question: How could we achieve the benefits of interoperability without imposing unnecessary costs on reporting firms, particularly smaller ones?

As noted earlier, different cost models should be considered to assist small governments or other entities that do not have the resources or staff that large organizations do. State regulators could engage multiple software providers for a bulk purchase of licenses at a low cost that could be used by smaller government entities or develop a web-based filing process with limited functionality for these entities, as the IRS has done with some individual taxpayers.

We wish to emphasize however, that selecting a single provider will not reap the benefits that the FDTA program promises; regulators should encourage competition among vendors so that pricing stays low, and the quality of applications is high, and vendors have incentive to have the highest quality performances. Standardization programs at scale will encourage general ledger providers

²⁹ See <https://xbrl.us/home/use/filings-database>

to incorporate standardized data export modules into their tools which will minimize added cost and disruption to reporting entities.

Question: Did the joint regulators strike the right balance when choosing the proposal's scope, in light of the statutory mandate?

We understand that the joint regulators sought to balance mandatory requirements with flexibility for Agencies working with different data collections. That said, the joint rule as written provides too much latitude in the properties-based approach. The proposed rule allows Agencies to select from a menu of choices that will not produce data that is interoperable, and are in some cases, not data standards at all (XML, CSV, PDF/A and JSON are data formats, not data standards).

Question: What policy issues should the Commission consider when adapting its rulebook to conform to the joint data standards, particularly given the statutory discretion afforded to the Commission (and other implementing agencies) in the second-phase rulemaking.

The Commission should consider how it can ensure interoperability among its own datasets by adopting a single semantic data model structure. Today, as noted in the responses to the Joint Agency rule proposal, the SEC requires companies that report using the US GAAP accounting standard to do so, in three different ways. This would be a good time to transition to adoption of a single semantic data model for all companies reporting in US GAAP. Companies that are subject to Regulation A and Regulation Crowdfunding adhere to the US GAAP accounting standard, but currently report using two different custom XML schemas. Public companies report in XBRL format using the US GAAP Taxonomy maintained by the Financial Accounting Standards Board (FASB).

Question: Does the proposal strike the right balance between principles and prescription? If not, how should the approach change?

As noted in our response to the Joint Agencies rule, the properties-based approach offers far too much latitude to Agencies to adopt data transmission formats that will not produce interoperable data. We urge the Agencies to reconsider this approach and implement a single semantic data model structure that supports a variety of data transmission formats. This will ensure that all Agency data collections are interoperable; it will give the Agencies flexibility to choose from widely used data transmission formats; and it will provide the means to evolve the approach over time if and when new data transmission formats are developed and can be easily incorporated into Agency ongoing rulemaking.

The Agencies should also consider how other non-FSOC agencies collect and use data today from the same reporting entities. For example, the U.S. Census uses government data extensively; many other agencies collect grants data from governments as well. Ensuring that a single approach is adopted across all these agencies would enable interoperability and even greater economies of scale and reduced cost.

Question: Would the balance the proposal strikes allow data standards to be updated in a timely manner? If not, what would work better? How often should regulators revisit the mandated standards to ensure that they remain current? Should we build a requirement to revisit the standards into the final rule?

The property based standard proposed does not provide a mechanism to easily expand or build upon the taxonomies. The single semantic data model structure provides a modular, long-term solution with the rigid structure to generate consistent data but the flexibility to continuously update and revise standards, technologies, and reporting needs quickly and efficiently.

When there are changes in accounting standards and industry requirements, taxonomies can be revised with relative ease and minimal need for IT support. When new data transmission formats are introduced, the semantic data model structure can be adapted to transport data in the new format with relative ease.

For example, the taxonomy supporting US public companies is updated with a new release each year that reflects changes in accounting standards and industry requirements; 6,000 public companies transition to a new release with minimal effort. The FDIC Taxonomy for banks is sometimes updated on a quarterly basis, with 5,000 banks transitioning to a new release, again with minimal effort.

Question: How, if at all, will artificial intelligence or other technologies influence the need for structured data? How should we take these potential future developments into account in implementing the FDTA?

A recent Department of Commerce publication, AI and Open Government Data Assets Request for Information³⁰ noted, *“today’s AI systems are fundamentally limited by their reliance on extensive, unstructured data stores, which depend on the underlying data rather than an ability to reason and make judgments based on comprehension.”*

The RFI aimed to explore how to achieve better data integrity, accessibility, and quality because *“AI tools are increasingly used for data analysis and data access, so Commerce hopes to ensure that the data these tools consume is easily accessible and “machine understandable” versus just “machine readable.”* “

We agree that AI systems will be strongly supported by the availability of structured, standardized, interoperable datasets envisioned by the FDTA.

A recent blog post, The IT Leader’s Guide to Preparing Structured and Unstructured Data for Generative AI³¹ noted, *“Imagine you’re a chef trying to cook a complex dish in a kitchen where all*

³⁰ See U.S. Department of Commerce, AI and Open Government Data Assets Request for Information : <https://www.govinfo.gov/content/pkg/FR-2024-04-17/pdf/2024-08168.pdf>

³¹ See The IT Leader’s Guide to Preparing Structured and Unstructured Data for Generative AI: <https://shelf.io/blog/the-it-leaders-guide-to-preparing-structured-and-unstructured-data-for-generative-ai/>

the ingredients are mixed up in a big pile. This chaotic kitchen is like unstructured data: everything is there, but it's all jumbled together, making it hard to find what you need, or even know what is really there in the first place. Unstructured data, like random piles of ingredients, can still be useful. It's like having a variety of foods from different recipes all over your kitchen. But, if you don't manage this unstructured data – say, by sorting out what ingredients are there and how they can be used – you can't effectively incorporate them into your dish.”

The post goes on to note that data, like ingredients, needs structure, “*Structuring data is beneficial for both the training and the application of generative AI.*” It enables efficient data processing, supports the ability to simplify and convert complex data into a format that is easier for computer programs to understand, and it helps to identify relationships between data types for trend and correlation analysis. Structured data supports scalability and reusability, allowing an AI model to train and adapt. Structuring data can be accomplished through “tagging” which is how XBRL associates’ information with a fact; through cataloging, and through the use of metadata to clarify meaning.

Artificial intelligence holds enormous promise, especially if it is supported by access to fully interoperable, structured data that can result from the successful implementation of the FDTA.

With the recommendations we made in our FDTA comment letter, we strongly believe that the FDTA will be highly successful at meeting expectations, delivering greater transparency and accountability, and reducing costs across the federal government. Thank you again for the opportunity to comment. Please contact me if you have any questions or would like to discuss our comments further. I can be reached at (917) 582-6159 or Campbell.Pryde@Xbri.us.

Sincerely,

A handwritten signature in black ink, appearing to read 'Campbell Pryde', is written over a light blue background.

Campbell Pryde, President and CEO, XBRL US

CC: Ann E. Misback, Secretary, Board of Governors of the Federal Reserve System
Christopher Kirkpatrick, Secretary, Commodity Futures Trading Commission
Legal Division, Docket Manager, Consumer Financial Protection Bureau
James P. Sheesley, Assistant Executive Secretary, Federal Deposit Insurance Corp.
Clinton Jones, General Counsel, Federal Housing Finance Agency
Melane Conyers-Ausbrooks, Secretary of the Board, National Credit Union Admin.
Chief Counsel's Office, Office of the Comptroller of the Currency
Vanessa A. Countryman, Secretary, Securities and Exchange Commission
Chief Counsel's Office, Department of the Treasury