October 21, 2024

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RE: Proposed Rule: Financial Data Transparency Act Joint Data Standards

OCC	Docket ID OCC-2024-0012
FRB	Docket No. R-1837; RIN 7100-AG-79
FDIC	RIN 3064-AF96
NCUA	RIN 3133–AF57
FHFA	RIN 2590-AB38
CFTC	RIN 3038-AF43
SEC	File No. S7-2024-05
CFPB	Docket No. CFPB-2024-0034

Dear Agencies:

We appreciate the opportunity to provide input to the Agencies Financial Data Transparency Act (FDTA) rule proposal. We strongly support the legislation as a means to help Agencies provide actionable, good quality data to citizens, businesses, investors, policy setters, governments, and researchers. We support the adoption of the Legal Entity Identifier (LEI), and we support certain elements of the proposal as it relates to data standardization.

We have significant concerns however, about aspects of the proposal which will result in Agency collections of data that are not interoperable, will not reap the benefits of economies of scale that data standards can bring, and will incur unnecessary costs across the data ecosystem.

XBRL US is a nonprofit standards organization, with a mission to improve the efficiency and quality of reporting in the U.S. by promoting the adoption of business reporting standards. XBRL US is a jurisdiction of XBRL International, the nonprofit consortium responsible for developing and maintaining the technical specification for XBRL (eXtensible Business Reporting Language). XBRL is a free and open data standard widely used in the United States, and in over 200 implementations worldwide[1], for reporting by public and private companies, as well as government agencies.

This letter provides our input to the rule proposal for the FDTA and includes as an Attachment responses to questions raised by the Securities and Exchange Commission (SEC) which may be of interest to all Agencies.

[1] See XBRL Project Directory: https://www.xbrl.org/the-standard/why/xbrl-project-directory/

Executive Summary

The cost of government regulation is increasingly seen as a burden by many in Congress and the courts who look to limit the scope of regulatory agencies. At the same time, data collected by regulatory agencies is becoming more important for the functioning of a modern economy. With increases in geopolitical, environmental, market, liquidity, counterparty, and political risk, the need for timely and comprehensive information is essential to navigate these risks. The cost and burden of data collection must be reduced, and the accessibility of data must be improved. Both can be achieved through standardization.

Regulators may be reluctant to embrace standardization as they believe it limits their flexibility to regulate as they see fit. This is a trap that must be avoided. Digital standardization enforces a disciplined and structured approach that results in a regulatory framework that is transparent, robust, and unbiased. As regulators consider implementation of the FDTA, it is important to keep in mind what constitutes success: better data, reduced cost, increased flexibility. We should not settle for anything less.

To that end, we urge the Agencies to consider our recommendations, highlighted in this summary and explained in greater detail below. First, **we strongly recommend that Agencies adopt a single semantic data model structure (XBRL) rather than the properties-based approach described in the rule proposal.** The proposed approach will result in Agencies continuing to manage discrete, siloed datasets as they do today, that are not interoperable and cannot be commingled or automatically shared and inventoried.

Adopting a single semantic data model, as we explain in this comment letter, will help Agencies realize economies of scale, and will reduce costs for regulators and reporting entities, as well as users of the data: citizens, investors, policy setters, and researchers. The XBRL standard can express many types of data including financial and non-financial data; and can harmonize with other standards that uniquely express certain types of data such as the ACTUS standard for financial contracts, messaging standards such as FpML, FIX Protocol, ISO 20022; entity identifiers like the LEI; financial instrument classifications like CFI, FIBO, and UPI; and more.

Benefits of the single semantic data model structure include:

- Data produced by Agency collections will be machine-readable and ***machine-understandable,*** eliminating the need for manual data entry and vetting, establishing a common digital language for all stakeholders. Data will be interoperable, shareable and can be commingled and inventoried together. This is feasible because even though the Agency, the reporting entity, and the data reported are *different,* the structure of the data is the *same*. The structured, granular, consistent nature of reported data lends itself to artificial intelligence and machine learning applications, which is becoming more critical for regulators, businesses and researchers handling high-volume information.
- **Data quality enhancements** because validation (business) rules can perform complex checking of accounting and regulatory standards, completeness, reasonableness checks and more. Validation rules created for one data collection can often be easily repurposed for other data collections because of the highly structured nature of the data.

- **Economies of scale** that reduce regulatory cost to collect and analyze data because all nine Agencies can leverage the same tools and databases. They do not need to build custom applications and can "borrow" and share tools from other Agencies, while still maintaining the uniqueness of their own data collection requirements and analysis. The same economies of scale that benefit government regulators will also reduce costs for reporting entities and data consumers. Software providers with applications that support one XBRL-reporting program often leverage the same applications for other XBRL-reporting programs. Development costs can be shared across many reporting entities, resulting in lower costs for those reporting. The cost of maintaining three separate products for three reporting situations will be higher than if a single application can be developed and costs shared across many. The same holds for analytical tools. Products that can be used for multiple datasets will be less expensive than products that must be tailored for single datasets and those savings will be passed on to reporting entities and data users.
- **Automation of Agency collaboration**. Following the same semantic data model structure also automatically coordinates the work of the Agencies, without the need to establish bureaucratic steering committees to monitor work and ensure collaboration.
- **Gives Agencies flexibility** to choose from multiple data transmission formats to "transport" their data including CSV, JSON, XML, and XHTML. The standards program will also be set up to adapt to new data transmission formats that may be introduced in future years, because the transmission process is separate from the semantic data model. Agencies can choose the transmission that is the best fit for their data.
- **Agencies will be able to update/revise reporting requirements more easily** and in a less costly fashion than the manual, paper-based process followed today; data preparers and data users will be able to adapt to updated requirements with minimal disruption. Time series data will remain intact even when reporting needs change.
- **Reporting requirements will be kept current** and have the flexibility to meet Agency and standard setter needs. Issuers will rely on the accounting standards they use today, for example, IFRS, GASB pronouncements, and FASB pronouncements, which will be kept current through taxonomies developed and maintained by the standards organization themselves. Agencies will be able to require Agency-specific reporting as well through taxonomies they develop that can be used seamlessly by issuers at the same time as taxonomies created by standards organizations.

We also recommend:

- **Require a taxonomy/schema for all Agency collections.** Even collecting "name" and "address" on an application has a schema with associated definitions, and relationships.
- **Re-use existing taxonomies where possible** such as the FASB GAAP Taxonomy used by public companies. Reporting entities such as banks and credit unions also adhere to FASB pronouncements. Recreating what is already available is costly, unnecessary and will result in data that is not interoperable.
- **Establish a governance framework for the Agencies** to facilitate continued sharing of information and standards development.

Furthermore, we urge the Agencies to eliminate potential off-ramps in the final rule that could derail the implementation such as the use of the term “to the extent practicable” which could be an easy exit when there is any pushback from stakeholders. Successful standards programs that yield the benefits outlined above require change and collaboration which is often difficult to embrace, for reporting entities, data users, and for the Agencies themselves. There are ways to ease the path for all stakeholders which could include compliance phase-ins or adopting creative pricing models.

Below are detailed explanations for each recommendation.

Require a single semantic data model structure (XBRL) to ensure interoperability, supported by multiple data formats to allow flexibility for Agencies.

We agree with the proposed rule that Agencies should have the flexibility to choose the data transmission format most appropriate for their data collections; and we agree that standards should evolve as new technologies are introduced.

We do not however, support the proposed “properties-based approach” which allows Agencies to select a data transmission format based on four criteria[2].

Why the properties-based approach is problematic.

This method is grounded on the assumption in the proposal, that “...*data transmission or schema and taxonomy formats that have these properties are likely to be interoperable with each other*”[3]. This assumption is incorrect.

“*A high degree of interoperability, so regulators and financial firms can analyze the same data using different systems*” is named as one of the three key ingredients for the level of quality needed for financial stability in the first Office of Financial Research (OFR) Financial Stability Report[4]. The FDTA proposal for a properties-based approach does not address this critical component and is not even named as one of the required properties.

The general nature of the four properties will result in Agencies continuing to manage discrete, siloed datasets (replicating what we already have today) that cannot be commingled, inventoried, or shared. The result is that data will be generated that is *not interoperable*, drastically limiting the

[2] See https://www.federalregister.gov/d/2024-18415/p-169 - (1) Render data fully searchable and machine-readable; (2) Enable high quality data through schemas, with accompanying metadata documented in machine-readable taxonomy or ontology models, which clearly define the semantic meaning of the data, as defined by the underlying regulatory information collection requirements, as appropriate; (3) Ensure that a data element or data asset that exists to satisfy an underlying regulatory information collection requirement be consistently identified as such in associated machine-readable metadata; and (4) Be nonproprietary or available under an open license.

[3] See https://www.federalregister.gov/d/2024-18415/p-176

[4] 2015 OFR Financial Stability Report: https://www.financialresearch.gov/financial-stability-reports/files/OFR_2015-Financial-Stability-Report_12-15-2015.pdf

ability of governments and businesses to reduce costs and gain access to consistent, comparable data.

The illustrative example below addresses reporting by municipal bond issuances; however, it could apply to data collections for any of the nine Agencies.

Most government securities issuers follow the Governmental Accounting Standards Board (GASB) pronouncements. Just as publicly traded companies are required to follow the Financial Accounting Standards Board (FASB) pronouncements and to report financial statement data by using an XBRL Taxonomy maintained by the FASB, a logical step would be for the SEC to work with the GASB to develop a Taxonomy for state and local government issuers. The GASB has already begun the process of building an XBRL Taxonomy that could be used by governments to report their Annual Financial Reports (AFRs) and Annual Comprehensive Financial Reports (ACFRs). The GASB recently presented their own taxonomy development work at the July 29-30 conference, GovFin 2024: Municipal Reporting Workshop[5].

If the SEC, however, opts for a custom XML or JSON schema, or a CSV or PDF/A implementation for government reporting, which would be consistent with the "properties-based" approach, the end result will be:

- Governmental issuers will face higher costs, because reporting applications will need to be custom-built by the same filing agents and software providers that already serve SEC-reporting entities.
- The SEC will incur the cost of building a custom schema to support the complexity of financial data (which XBRL was designed to do). The SEC will not be able to leverage the tools it uses today to database, extract, and analyze public company and investment management data; and it will not be able to use the same validation rules to check for data integrity. All of these assets will need to be custom-built to fit the custom governmental reporting schema.
- Data consumers, including the public, investors, researchers, academics, and data analytics providers, will also need to build or buy custom extraction, database, and analytics tools to fit the design of the custom model.

An attempt to achieve some level of interoperability between datasets built using different schemas would require detailed mapping to align how data model 1 exchanges data characteristics like time period, units of measure, data type, etc., with how data model 2 exchanges the same information.

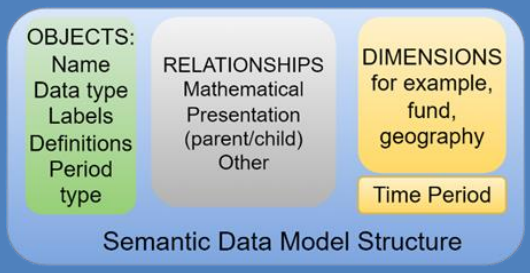
This "mapping" process would need to be replicated over and over, by the collecting Agency, and by every data user.

[5] Video from GovFin 2024: Municipal Reporting Workshop, July 30, 2024, Getting Started: Government Reporting Data Standards: https://www.youtube.com/watch?v=km_wiFpyW8M&list=PLEyg0bSY11l4aecArcohh205443w60rcb

Furthermore, when there is a change in reporting requirements - new data is required, definitions change, accounting standards change - the schema will need to be re-mapped across every Agency reporting application and data user. Every tool used to report, collect, or extract data will need to be revised to work with the new schema. In addition to the cost incurred for any change, the opportunity to introduce errors and inconsistencies across multiple entities and mapping procedures is enormous.

The swaps market is a cautionary tale about expecting interoperability when data standards are not clearly defined. The article, *The Data Reporting Challenge: U.S. Swap Data Reporting and Financial Market Structure*[6], authored by Richard B. Berner, Robin Doyle, and Kenneth Lamar, provides a useful case study. The Dodd-Frank mandate for the collection of swaps data resulted in three new Commodity Futures Trading Commission (CFTC) rules for data collection. Rule makers, however, did not provide prescriptive rules on the details that needed to be reported, with the end result that, *"Left to using their own data schema, SDRs each developed their own reporting template, making comparability near impossible,*

WHAT IS A SEMANTIC DATA MODEL STRUCTURE?



Semantic Data Model Structure

The term "single semantic data model structure" refers to a digital structure that expresses the features of data and the relationships that data have with other related data, in a consistent manner across data collections. It is a container that holds all the information needed to digitally understand the meaning of information and it structures this information the same way regardless of the data reported. The data model structure provides the building blocks to unambiguously define the data to be reported: information including object name, (for example Assets), data type, human-readable label, definition, dimensional characteristics and units of measure, along with the relationships between reported facts like mathematical (accounting, for example Assets = Current Assets + Noncurrent Assets) and parent/child relationships. All information shown in the diagram must be communicated along with the datapoint in order for a computer to read it without ambiguity.

The semantic model structure can represent all kinds of data from all kinds of entities, from companies that report following Financial Accounting Standards Board (FASB) GAAP, to governments that report following Governmental Accounting Standards Board (GASB) GAAP to banks submitting simple applications. The data reported is different, but it can all be expressed using the same semantic data model structure.

[6] The Data Reporting Challenge: U.S. Swap Data Reporting and Financial Market Structure: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3541248

and sometimes requiring data elements that were of marginal use. As a result, reported data were often incorrect or late."

The CFTC and the SEC separately established U.S. swap data reporting collections that were inconsistent with each other, resulting in, as described by then-SEC Commissioner Scott D. O'Malia, '*...inconsistent reporting and variability in the data, as well as technology shortfalls combined with incongruent rules, have made the data presently unusable to the Commission.*'"

The authors note a key theme of the paper, *"…precise definitions, and data and technology standards are essential ingredients for implementing digital/technology solutions to improve the efficiency and accuracy of regulatory reporting,*" and conclude, "...*only by using uniform data standards will regulators be able to access and utilize the data made available. Standardization will have to be more advanced to meet regulatory requirements*."

Why a Single Semantic Data Model is preferable

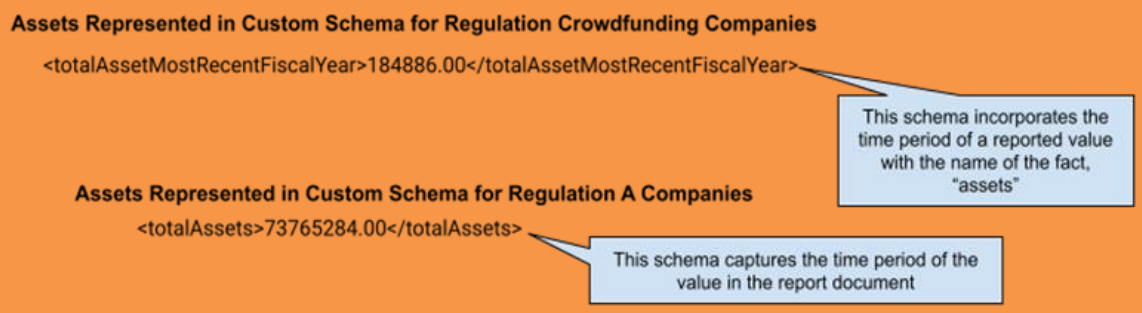
Standards like UPCs, QR codes, railroad track gauges and shipping containers, take an existing process or task, and improve its efficiency and effectiveness. One of the most important characteristics of any standard is compatibility.

Shipping container dimensions are standardized so that machines used to move them, such as top or side loaders or cranes, are also standardized; they can manage containers produced by any manufacturer and load them into any ship or truck. Without standards, custom loading machines would need to be built, and custom trucks or ships may need to be built in which to transport the containers. Economies of scale would not be achieved, costs would not be reduced, efficiencies would not be gained. This is what happens when there is a lack of interoperability in transport and exchange.

The degree of variation allowed in the draft FDTA rule proposal will result in the same lack of interoperability in the transport and exchange of data among Agencies. A properties-based data "standard" that lacks the level of specificity achieved by UPCs, QR codes, and shipping containers, will not be interoperable.

XBRL is a semantic data model structure that was developed to unambiguously capture financial and other types of business data. Reporting using the XBRL single semantic data model structure will enable interoperability even in a situation where the reporting entity relies on a different accounting standard or reports non-financial data such as greenhouse gas emissions or climate-related narratives. When a single semantic data model structure is used, filing agents and other software providers can adapt their existing tools to support all kinds of Agency data collections, which is much less costly than building custom applications for each reporting situation. Reduced product development and maintenance costs will come to issuers in the form of lower application and licensing fees.

When regulators opt for custom schemas, the result is data that is not interoperable as shown in the visual below.



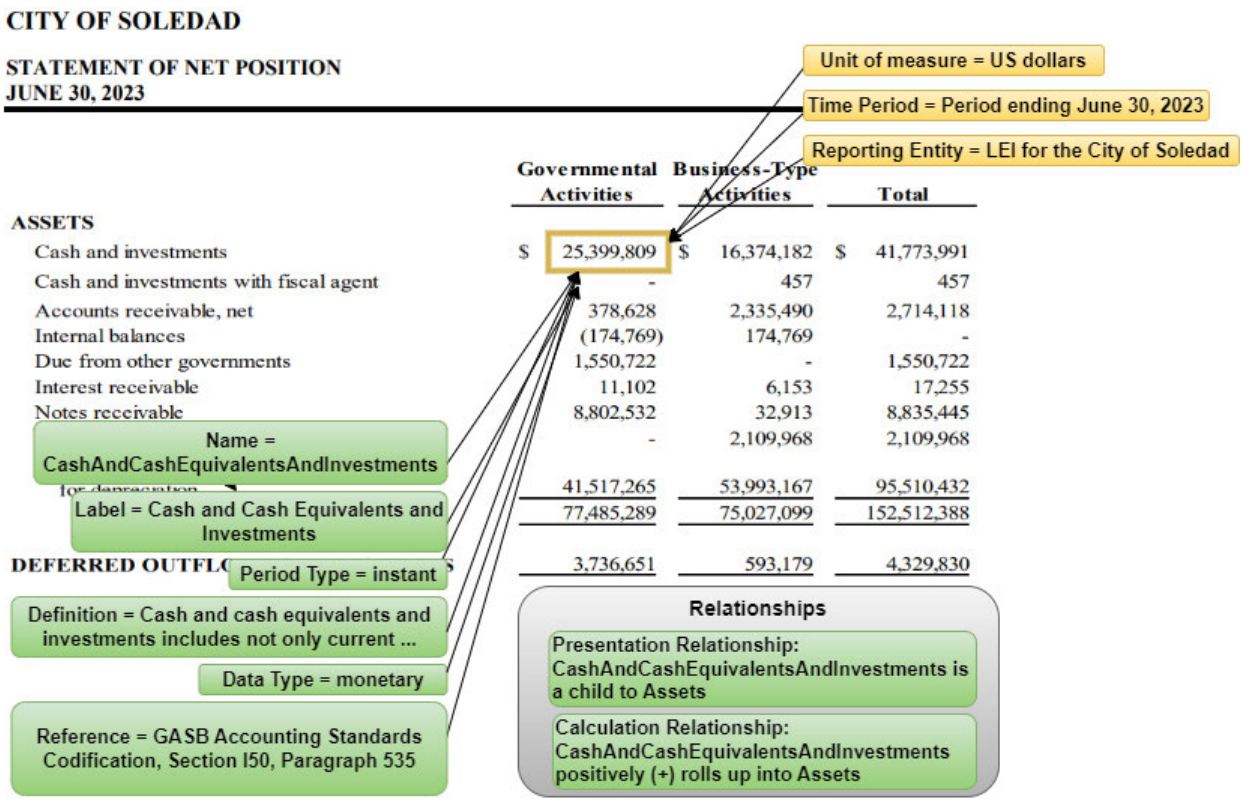
Custom-built XML schemas, like the two shown above, meet the four criteria of the properties-based approach. However, each was created separately even though the work was done within a single Agency, the Securities and Exchange Commission. The data generated by these two schemas is not interoperable and cannot be exchanged between computer systems. The schema on the top represents reporting for Regulation Crowdfunding companies. The schema on the bottom represents Regulation A companies. The use of custom schemas requires different tools to prepare, collect, and analyze data for crowdfunded companies and data for Reg A companies. Data is not interoperable despite the fact that the two schemas meet the four criteria defined in the FDTA proposal. Furthermore, public companies report using the XBRL standard with the schema defined by the FASB GAAP Taxonomy, for yet a third representation of the same data.

Filing agents and other providers that serve SEC filers often work with many types of SEC reporting companies. Under the current rules and the Agencies proposal, a provider that serves all three types of companies (Reg A, Reg CF, and public companies) must develop and maintain three separate products, which is more costly than supporting a single application for all. If a single schema were used for all reporting applications, the cost could be shared across companies of many types, enabling economies of scale that benefit reporting entities in the form of lowered costs from providers. This example is illustrative of how any Agency data collection may function under the rule as proposed.

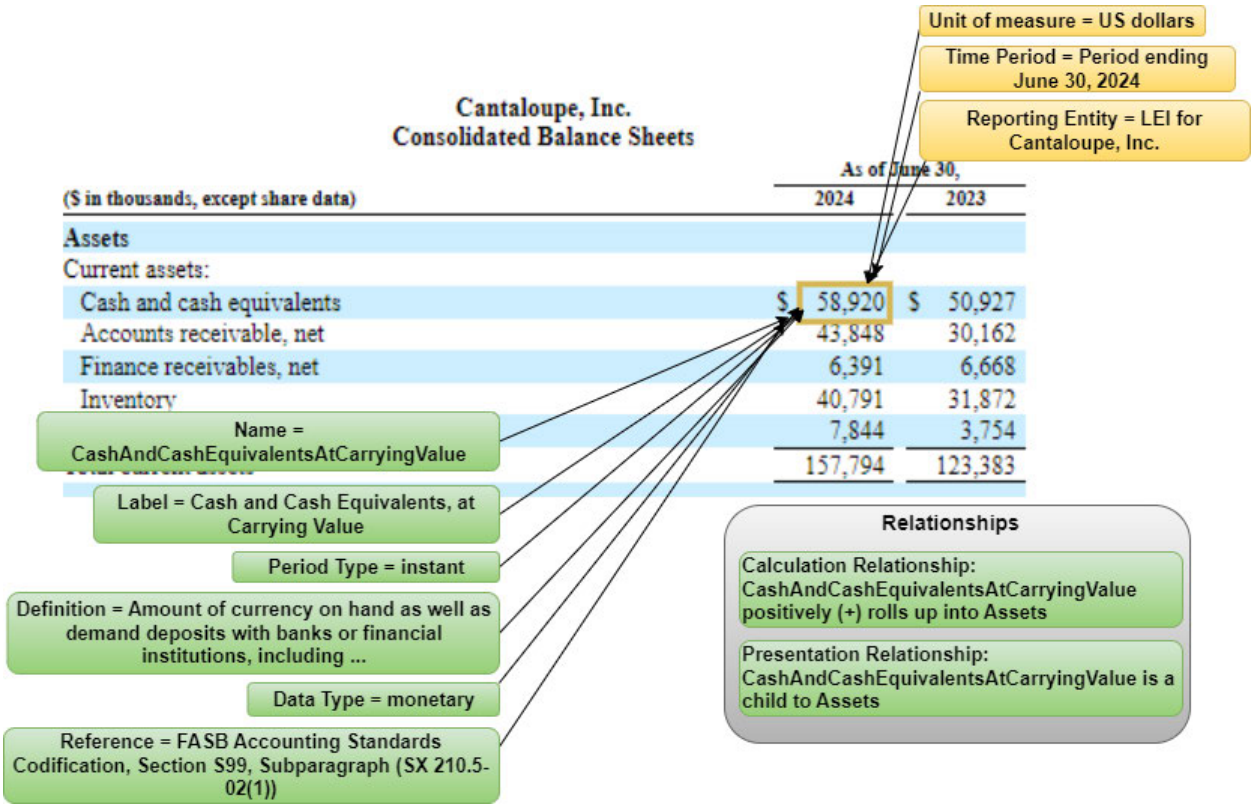
When governments and public companies use XBRL Taxonomies, although the data reported follows different accounting standards, data produced by all types of reporting entities is interoperable, and can be shared, stored, inventoried, and commingled.

How it supports any Agency data collection

The image below shows how the single semantic data model structure represents the fact 25,399,809 which is the balance of cash and investments for governmental activities for the City of Soledad, California. The green bubbles represent the information about the fact in the XBRL taxonomy, which includes descriptive metadata and relationships that unambiguously define the fact. Concepts in this taxonomy are defined by GASB pronouncements which is noted in the green bubble on the lower left-hand corner of the diagram, "*Reference = GASB Accounting Standards Codification, Section I50, Paragraph 535"* as shown in the green bubble on the lower left-hand corner of the diagram. The yellow bubbles represent additional qualifying information for the fact that is contained in the report and prepared by the City of Soledad. All these attributes of the fact are defined in the single semantic data model structure.



The second image below depicts a fact reported by a public company, which adheres to FASB pronouncements. This data collection follows the same semantic data model structure as the fact shown above but it uses definitions, authoritative references, and other requirements of the FASB.



What is important to note from these two diagrams is that while the data and the accounting standards are different, the information about the facts (time period, labels, definitions, units of measure, the object concept, etc.) is all captured and transported the same way. For example, the units for both examples are in US dollars (USD) following the ISO 4217 currency standard and the time period for both follow the same ISO 8601 time period standard. Data prepared with the same structured approach can reside in the same database, and can be accessed using the same tools, even if the data is quite different. If these facts had the same associated time period, information could be queried on that date across both entities in the same data collection.

As another example of how data in a single semantic data model structure is interoperable, XBRL US maintains a single database[7] that houses information reported by: public companies to the SEC; public utilities to the FERC; European companies to the European Securities and Markets Authority (ESMA); and even government ACFRs prepared using the XBRL US ACFR Taxonomy[8]. The data is all structured identically regardless of accounting standard, reporting entity, or regulatory agency, so that it can be extracted and analyzed together.

Instead of the properties-based joint standard described in the proposed rule, the Agencies should require a single semantic data model structure that has the following characteristics: (1) is a structure that the Agencies can use for all FDTA-covered information collections; (2) is freely

[7] XBRL US Database of public filings (note that FERC, ESEF and SEC filings are publicly available; access to a limited ACFR dataset may be available on request): https://xbrl.us/home/use/filings-database/
[8] XBRL US Government Reporting Information Package (GRIP) Taxonomy: https://xbrl.us/xbrl-taxonomy/2022-grip/

available under an open license; (3) is software-agnostic; (4) consistently depicts attributes of financial data, including time, units of measure, data type, and other dimensional features; (5) has interchangeable components that can be reused (a modular approach will allow Agencies to share common concepts such as "Name" and "Address" which should have the same definition, name and characteristics regardless of collecting agency or entity); and (6) is able to easily handle the Legal Entity Identifier (LEI).

When the same semantic data model structure is used for all Agency data collections, the result is consistently structured data that can be shared, stored, inventoried, commingled and analyzed together.

Structured data that is interoperable is an optimal source for Artificial Intelligence applications as the consistent construction of each datapoint and its corresponding descriptive metadata will generate more useful outcomes from AI algorithms. According to a recent Department of Commerce (DOC) Request for Information (RFI), AI and Open Government Data Assets Request for Information[9], "..*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 DOC 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.

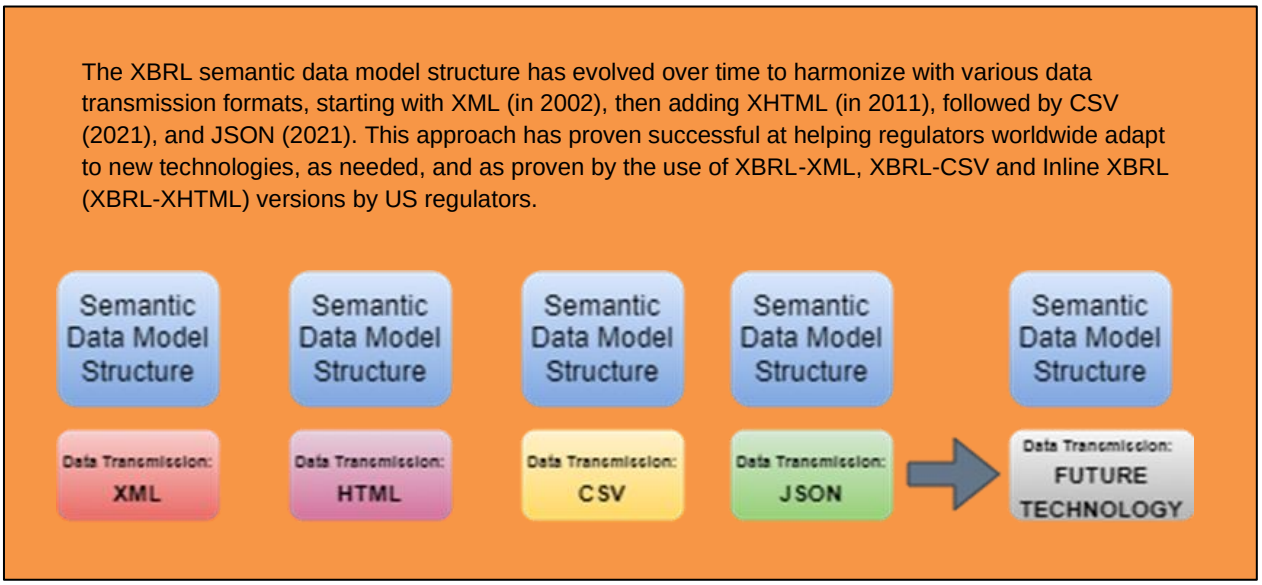
Each data set collected by an Agency is different, but the data is structured and defined should be the same. This approach will support Agency requirements of the Evidence-Based Policymaking Act of 2018[10], and the Open Government Data Act, which establishes practices for the federal government to modernize its data management practices and improve efficiency to inform policy decisions. The single semantic data model establishes a long-term data collections program that can adapt to new technologies in the future.

The role of data transmission formats

The proposal names specific data transmission formats as being appropriate to fulfill FDTA requirements. The proposal names XBRL, XML, JSON, and XHTML (Inline XBRL) as being able to reference a schema; and PDF/A as being appropriate if the PDF format has advanced tagging features. We agree that the named formats can digitally convey information, however there are critical differences between the proposed methods as shown on the table in Appendix A. The visual below shows how XBRL harmonizes with various data transmission formats.

[9] See Department of Commerce Request for Information: https://www.govinfo.gov/content/pkg/FR-2024-04-17/pdf/2024-08168.pdf

[10] See https://www.congress.gov/115/plaws/publ435/PLAW-115publ435.pdf



XBRL is a semantic data model structure which can be rendered as an XML file (XBRL-XML), an XHTML file (called Inline XBRL), as a CSV file (XBRL-CSV), or as a JSON file (XBRL-JSON). It was designed this way to ensure that it adapts to technological changes over time.

Using a single semantic data model structure like this gives Agencies the flexibility to select the data transmission format that best fits the data reported, for example CSV for high-volume repetitive datasets, and XHTML for datasets that are more useful when in both human and machine-readable form.

The SEC, for example, has data standards programs that collect data in XBRL-XHTML (Inline XBRL), and it also has a data collection program in XBRL-XML. The SEC does not however have XBRL-CSV implementations which we have recommended for several recent SEC programs. For example, the SEC final rule, Enhanced Reporting of Proxy Votes by Registered Management Investment Companies; Reporting of Executive Compensation Votes by Institutional Investment Managers[11], requires Form N-PX to be prepared in custom XML rather than XBRL. The final rule states, "*...with respect to XBRL-CSV, the Commission believes using the XBRL data model to define the elements and relationships featured in Form N-PX would add unnecessary complexity because Form N-PX consists of a relatively simple two-dimensional set of rows and columns, and does not feature any complex interlinking relationship among different rows. In addition, XBRL-CSV is not likely to create significant efficiencies in preparing and using managers' Form N-PX data because only a small number of managers are subject to a reporting requirement to file XBRL disclosures with the Commission*."

We disagree with the SEC's stated rationale in opting for custom XML. Even with a small number of filers as the SEC points out, software providers that already serve public companies and investment management companies that report in XBRL, could re-purpose existing tools for Form N-PX if it was prepared in XBRL; and data users that already extract data in XBRL format for

[11] See https://public-inspection.federalregister.gov/2022-24292.pdf

other purposes, could repurpose those tools for Form N-PX data extraction. With Form N-PX in custom XML, completely new tools for reporting and data extraction must be custom built. The greater expense incurred by software providers will be passed on to reporting entities, and to data users.

Furthermore, the SEC will incur additional costs with a custom XML approach. The Commission must build a custom XML schema, create custom tools to extract the data and maintain a separate database to store the data - all because Form N-PX data is not interoperable with other data that the Commission collects. Opting for XBRL-CSV rather than a custom XML schema would result in smaller file sizes; custom XML requires issuers to repeat identifying tags over and over, rather than referencing a taxonomy.

Other federal agencies have opted for varying XBRL approaches, picking the data transmission format that is the best fit for the data reported. The Federal Energy Regulatory Commission (FERC), for example, has a data standards program that collects financial statement data in XBRL-XML format and will soon introduce a data collection program for high-volume Electric Quarterly Report filing in XBRL-CSV.

The FERC Commission Order RM23-9-000 from October 19, 2023,[12] explains why they opted for XBRL-CSV, "*The Commission proposes to adopt a new EQR submission system based on the XBRL-CSV standard… XBRL-CSV applies the XBRL standard to the CSV format, the format favored by most Sellers [filers of the EQR]. The Commission believes that adopting the XBRL-CSV standard would preserve the efficiency and simplicity of CSV, while adding the flexibility associated with the XBRL standard…the Commission believes that transitioning the EQR system to the XBRL-CSV standard will make information easier for Sellers to submit and for data users to retrieve, while also decreasing the costs, over time, of preparing the necessary data for submission and complying with future changes to the Commission's filing requirements.*

One benefit of the proposed XBRL-CSV system is that it would allow Sellers to continue to prepare and review their data in Excel spreadsheet format and then submit their data in CSV format…. the proposed new system would allow Sellers to use Excel to prepare multiple, smaller transaction files, which filers could then save as CSV and submit multiple transaction files without needing to combine them into one large transaction file…Another benefit of the proposed XBRL-CSV system is that it would save Sellers time in preparing their filings by allowing them to check their EQR submission for most errors in real-time by using the publicly available FERC EQR taxonomies and related documents without first submitting files to the Commission."

We agree that data transmission formats are important to transport data, but on their own, they are not sufficient to generate data that is fully computer-readable, computer-understandable, and interoperable. Combining the semantic data model structure with a data transmission format provides digital, interoperable, understandable data.

[12] See https://elibrary.ferc.gov/eLibrary/filelist?accession_number=20231019-3066

Review of schema and taxonomy formats named in the proposal.

While all the named data transmission formats are capable of digitally conveying information in a document, only XML, JSON and XBRL can reference a common data language (schema or a taxonomy) that can be reliably parsed and analyzed. PDF/A can contain and transport free-form information, but there is currently no specification that allows it to reliably reference a schema that would generate structured data. While this may be feasible at some point in time, the PDF/A specification currently does not have that capability today and should not be allowable to fulfill the FDTA until such time as it has this capability.

XML, JSON, and XBRL can transport metadata about facts reported by referencing a schema or taxonomy which conveys explanatory information that helps the receiver of the information understand what the fact represents (for example, “Who reported the data? What was the time period? What is the definition for the fact?”)

However, this is where XBRL diverges from XML and JSON.

XML and JSON[13] have the flexibility to support a custom-built schema; “custom” means the data structure can be designed *in whatever way the developer wishes*. XBRL, however, only supports a rigidly structured, standardized XBRL Taxonomy. The rigidity of the XBRL structure means all data generated using an XBRL standard is structured and produced in a standardized fashion; it has a standardized inflexible structure to transport both the fact and the metadata that further explains what the fact represents.

The SEC chose a custom XML schema for its implementation of Schedules 13D/13G, noting in the final rule, Modernization of Beneficial Ownership Data[14], "... *13D/G-specific XML is more suitable than XBRL for Schedules 13D and 13G because it facilitates the use of a fillable form that should result in a lower cost of complying with the structured data requirement compared to XBRL, particularly for smaller and infrequent filers. Under an XBRL requirement, filers (including smaller and infrequent filers) would incur costs and burdens associated with tagging the disclosures (e.g., software licensing costs, time spent applying tags) or with paying a third party to do so. Thus, although some Schedule 13D and Schedule 13G filers, such as those currently subject to Inline XBRL reporting requirements (e.g., filers that are Commission registrants) or that otherwise have experience with XBRL may realize some efficiencies under an XBRL alternative, we believe the cost savings expected to arise from having a fillable form option under the 13D/G-specific XML requirements would have a more substantial positive impact with respect to filers as a whole*."

While we agree that access to a fillable form, particularly for infrequent filers, is optimal, the SEC could create a fillable form that generates data in structured XBRL format. There would be no additional resources required to create an XBRL taxonomy versus a custom XML schema, and the data produced could then be extracted, analyzed, and used, by the same tools that the SEC

[13] Only the JSON-LD (linking data) specification has this capability.
[14] See https://www.sec.gov/files/rules/final/2023/33-11253.pdf

uses today (and that investors and data aggregators use as well) with structured XBRL data. The economies of scale would be beneficial for the regulator and for other data consumers.

While the terms “rigid” and “inflexible” are often considered to have negative connotations, it is the opposite with standards. It would be a chaotic world if electricians had the latitude to install wiring and current however they chose and had no guidelines to follow. Or if UPC codes were not truly “universal” and every manufacturer had their own custom-made version (with custom-built scanners and custom-designed codes for their products). By definition, restrictions are what make standards, *standard*.

The importance of concrete structure in standards is shown in the Federal Energy Regulation Commission (FERC) program. The FERC, which initiated the upgrade of their data collection using custom XML, switched to XBRL instead; and made the following statements in a recent webinar[15]:

“We chose it [XBRL] over custom XML because there were a lot of efficiencies to gain in adopting XBRL and a lot of cost savings. We relied on our larger agency partners, the SEC and the FDIC who already had XBRL collections in place, and we learned from their experience and made some different choices for our system which I think paid off in the end.”

“We started with a custom XML solution because that’s what we had done in the past with all of our other collections … Honestly, the more I looked into XBRL, the more I talked to other experts and to the SEC, XBRL answered a lot of the questions already …about how to deal with time on a field… tons of questions that we would have had to answer in a custom XML implementation were already answered with XBRL. It also provided the flexibility to allow us to add our own rules on top of it. So, it just pushed the project months forward by being able to adopt XBRL.”

Separately, the Federal Deposit Insurance Corporation (FDIC) noted in a video[16] that they chose XBRL because it readily supports financial data, *“... the FDIC didn’t want to … create another ‘XML-flavored’ business reporting language. We didn’t need to do that because XBRL already had all the definitions and everything that we needed to implement a solution.”*

Unlike JSON or XML, XBRL has a standardized mechanism to communicate units of measure (for example, acres, square miles, dollars, percent), time periods, level of precision, human-readable labels, and definitions. XBRL assigns each fact a predefined data type to explain if the reported value expresses an integer, a monetary value, or a text string, for example. XBRL explicitly identifies the reporting entity and associates that entity with every fact reported. XBRL has a standard method to represent accounting relationships, presentation relationships, and other types of relationships that may exist between facts.

If an Agency opts for XML or JSON, it must create from scratch the structure to represent these relationships and metadata. Creating a custom schema for data that can be presented in XBRL

[15] XBRL US Webinar, September 11, 2024, FERC: How Regulators Use Technology to Improve Efficiency, https://xbrl.us/events/240911/

[16] Video: Government Use of Data Standards - Conversation with the FDIC: https://xbrl.us/news/regulator-video/

is recreating the structure that XBRL already has. More importantly, if an Agency creates a structure based on a specific data collection, it is *highly unlikely* that it will build one that is interoperable with other custom XML or JSON schemas at other Agencies.

Neither CSV nor PDF/A, the other possible formats named in the FDTA rule, have any of the characteristics noted above, which are necessary for the unambiguous exchange of data.

In referencing PDF/A the rule proposal states, "*PDF may satisfy the standard if the data within the PDF conforms to specification "A" (PDF/A) that uses advanced features for tagging fields with a reference schema and taxonomy and provides necessary metadata that allows for automated data extraction.*" The PDF/A specification does allow the inclusion of information along with a fact, but it cannot reference a schema or taxonomy. While, in theory, the specification could be upgraded, standards development takes time and is not currently viable given the FDTA rollout timing. Furthermore, PDF/A files that reference a schema/taxonomy would still require "tagging" of individual facts within the PDF file and it would not be the same as the process followed today when preparing a PDF, of creating a report in another format like Excel or Word, and then transforming it with a click of a button to PDF.

Many reporting entities, including government bond issuers, nonprofits, and companies today submit PDF formatted financials and other disclosures to fulfill requirements. There has already been pushback from a segment of the government issuer community, and there will likely be concerns raised from others that report in PDF format and that wish to keep the status quo.

We recognize that some reporting entities are likely to have a learning curve to climb, however we are concerned that PDF/A was included as a possible solution to serve as an off-ramp to some data collections. Transitioning to PDF/A today, given the current state of the PDF/A specification, would result in no change in the usefulness of the data, or the ability of data users to gain access to machine-understandable, automatable data. There will be a cost in transitioning to PDF/A for all involved, from issuers to data users, but **no benefits**.

XBRL taxonomies, again because of their structure, are compatible and interchangeable. Taxonomy modules can be re-used and combined, a practice used extensively by the SEC today for reporting by public companies and investment management companies. In fact, when public companies report, they typically use multiple taxonomies - some developed by the FASB (for FASB GAAP financials), and some developed by the SEC (for document and entity information). This facility makes it easier to: ensure data interoperability, and update and revise reporting requirements as needed, by the regulator or standard setter responsible for a particular reporting requirement. XBRL taxonomies enable long-term compatibility of data by allowing changes to be made in reporting requirements without "breaking" time series.

Furthermore, the XBRL structure lends itself to standardized validations (business rules) which can be used to check accounting rules (for example, Current Assets + Noncurrent Assets must total to Assets), reasonableness, reporting completeness, and more. While validation rules can be built for custom XML and JSON schemas, they must be created "from scratch" for each

schema. Validation rules created for one taxonomy can often be re-used for a separate taxonomy with minimal revision because of the consistent structure of the data.

Experiences of Regulators Using a Single Semantic Data Model

The Federal Deposit Insurance Corporation (FDIC) began collecting data from banks using a single semantic data model in 2005. Their implementation resulted in immediate efficiency gains for members of the Federal Financial Institutions Examination Council (FFIEC) including[17]:

- 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

When the FERC began researching how to modernize their data collection, they started with XML but switched to XBRL after identifying difficulties making an XML program work for their needs. The flexibility of XML meant they were effectively "starting from scratch" building schemas to represent financial and energy data; and given the custom nature of the schemas they were creating; they had to create custom applications to work with the data.

The final FERC rule[18] states, "*...the XBRL standard includes all the advantages of the XML format, such as its non-proprietary nature, its efficient sharing of data across different information systems, … while also structuring the data with tags that utilize standard taxonomies to capture the inherent characteristics of the information as well as the value of the data… the XBRL standard is required for filing forms by a number of other federal agencies… XBRL is an international standard that enables the reporting of comprehensive, consistent, interoperable data that allows industry and other data users to automate submission, extraction, and analysis… the use of XBRL would facilitate the implementation of changes to its reporting requirements by enabling future changes without the need for costly development procedures.*"

The FERC data modernization project[19], which 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, and development, testing and implementation of a deployment plan, 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.

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

[18] FERC Final Rule: https://www.federalregister.gov/documents/2019/06/27/2019-13588/revisions-to-the-filing-process-for-commission-forms

[19] See USASPENDING.gov, Award Profile Contract Summary, Department of Energy: https://www.usaspending.gov/award/CONT_AWD_89603019P0018_8960_-NONE-_-NONE-

The FERC noted in a recent webinar[20], "*"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."*

The FERC also called out the ease of making changes when reporting needs change, "*It also allows us to change things easier. When reporting requirements change, instructions or validation rules need to change, we have internal software applications that we use that can affect the taxonomy, publish a new version, change the validation rules, and schedule them for when they need to go out."*

The single semantic data model approach has a 19-year history of successful use by the FDIC, the SEC, and the FERC in the US; and is in extensive use in non-US markets. The single semantic data model structure has been adopted in countries including Australia[21] and the Netherlands[22] where it is called Standard Business Reporting. The Netherlands estimates that they have been able to reduce administrative burden on regulators and business by 25% in five years with the XBRL standard estimated to account for €750 million of the initial savings.[23]

The United Kingdom's HMRC Companies House[24] alone requires over 4.5 million companies[25] to report in structured (XBRL) format. There are 200+ global regulatory implementations[26], ranging from financial regulators to tax authorities to ESG reporting.

Eliminate off-ramps that will dramatically limit the efficacy of the program.

We urge the Agencies to remove the term "*to the extent practicable*" under the section on properties of a data standard which appears on page 71. This clause eliminates all responsibility of the Agencies to adopt any of the requirements of the FDTA and may result in Agencies selectively choosing which data collections will have data standards requirements and which will not. The implementation of standards requires change and there is likely to be pushback from reporting entities and others who may not see immediate benefits which are usually recognized over time. The public good of a robust data standard should outweigh an interest in preserving the status quo, if the government's data is to be useful among agencies and by all Americans.

[20] How Regulators Use Technology to Improve Efficiency: https://xbrl.us/events/240911/
[21] SBR in Australia: https://www.sbr.gov.au/
[22] SBR in the Netherlands: https://business.gov.nl/regulation/standard-business-reporting/
[23] Standard Business Reporting Case Study: Tangible benefits of data standards for business and regulators: https://xbrl.us/wp-content/uploads/2023/07/SBR-Case-Study.pdf
[24] 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
[25] 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
[26] XBRL Project Directory: https://www.xbrl.org/the-standard/why/xbrl-project-directory/

As noted in Marc Levinson's book, *The Box, How the Shipping Container Made the World Smaller and The World Economy Bigger*[27], "*Only with time, as container shipping developed into an entirely new system of moving goods by land and sea, did it begin to affect trade patterns and industrial location. Not until firms learned to take advantage of the opportunities the container created did it change the world. Once the world began to change, it changed very rapidly; the more organizations that adopted the container, the more costs fell, and the cheaper and more ubiquitous container transportation became.*"

Require a taxonomy/schema for every data collection.

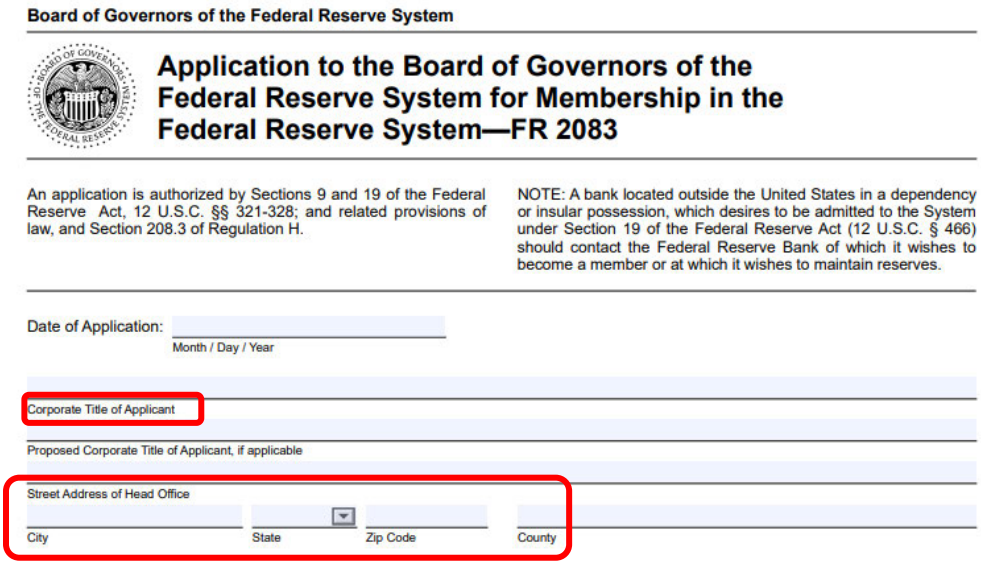
According to the proposed rule, "*Not all Agency collections of information have a schema and taxonomy associated with them, as a schema and taxonomy may not be appropriate*."

Any data collection that will be inventoried, posted to a database, or shared, should have a supporting schema/taxonomy. This is necessary to define the logical configuration of the data being reported and allow the reporting entity, as well as the data collector and user to understand how the data is organized and structured. The taxonomy establishes a common (agreed upon) language for what is reported. Without a taxonomy, a computer cannot understand what a fact represents or how it relates to other data; data will not be prepared or collected within the constraints of having uniform definition and structure; reporting will generate data that is ambiguous, requires manual review, and cannot be automatically consumed and understood by computers.

Even if only two facts are reported on a form, for example, Corporate Title and Address as shown on the form below,[28] a schema is necessary to enable linking these facts across different data collections and defining what they represent in a consistent manner.

[27] Marc Levinson, The Box, How the Shipping Container Made the World Smaller and the World Economy Bigger, Second Edition, Princeton and Oxford, Princeton University Press, 2016, page 17.

[28] For example, Application to the Board of Governors of the Federal Reserve System for Membership in the Federal Reserve System - FR 2083: https://www.federalreserve.gov/apps/reportingforms/Download/DownloadAttachment?guid=f2104d38-4257-4bb2-9458-ab388400476b



Board of Governors of the Federal Reserve System

Application to the Board of Governors of the Federal Reserve System for Membership in the Federal Reserve System—FR 2083

An application is authorized by Sections 9 and 19 of the Federal Reserve Act, 12 U.S.C. §§ 321-328; and related provisions of law, and Section 208.3 of Regulation H.

NOTE: A bank located outside the United States in a dependency or insular possession, which desires to be admitted to the System under Section 19 of the Federal Reserve Act (12 U.S.C. § 466) should contact the Federal Reserve Bank of which it wishes to become a member or at which it wishes to maintain reserves.

Date of Application: Month / Day / Year

Corporate Title of Applicant

Proposed Corporate Title of Applicant, if applicable

Street Address of Head Office

City | State | Zip Code | County

Most data collected by the Agencies (as found in the OFR Interagency Data Inventory[29]) represent financial statements or non-financial data or may express inputs to a defined form or responses to survey questions. All collections include data that should be represented by a semantic data model structure that includes relationships between the reported facts so they can be understood by computers.

Financial statements have dimensional characteristics such as data broken down by fund, geography, or time period. Non-financial data like the FDIC Interagency Appraisal Complaint Form[30] categorizes complaints received by topical issue, location, and type of property. Capturing dimensional characteristics in digital format allows regulators and others to easily analyze trends. This is accomplished by establishing a taxonomy.

We urge the Agencies to create digital schemas for **all** data collections that are shared, inventoried, or maintained in a database, as all of these data collections will already have some form of schema, either in digital or paper formats. In addition, we maintain that most Agency data collections should reference a taxonomy to ensure the greatest efficiency and consistency of data. The use of schemas and taxonomies not only helps in data collection but in ongoing data management and provides a comprehensive inventory of all data reported. A taxonomy gives regulators the ability to revise and update reporting requirements and instructions once (in the taxonomy); changes are automatically communicated to preparers and data users simultaneously, improving communication, efficiency, and consistency across the supply chain.

If there are situations where a schema is not required, we urge the Agencies to unambiguously define those situations in the final rule to eliminate confusion and ensure that Agencies do not shortcut the approach to standards development.

[29] OFR Interagency Data Inventory: https://www.financialresearch.gov/data/interagency-data-inventory/
[30] FDIC Interagency Appraisal Complaint Form: https://omb.report/icr/202206-3064-001/doc/122261400

Re-use existing taxonomies where possible.

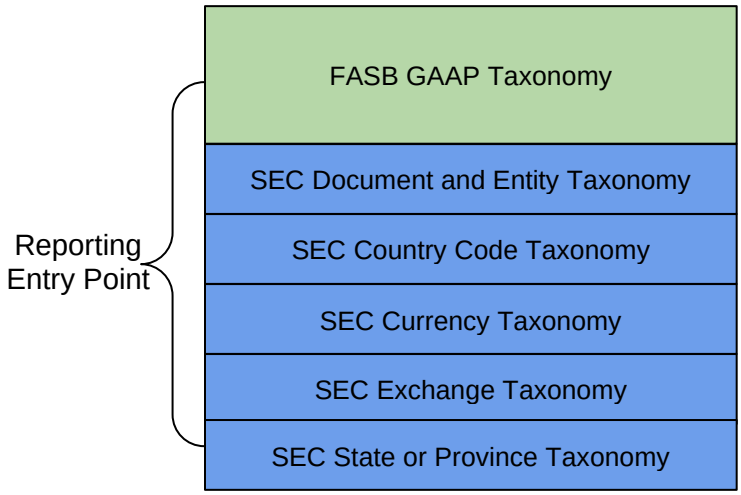
Good quality, interoperable data is only possible when data is reported using a consistent, common language, and when data is structured in the same way. There are many taxonomies already in use that should be re-used for entities that report using the same information model. For example, the US GAAP Taxonomy, maintained by the FASB should be used by every entity that reports using FASB pronouncements, regardless of type of entity or regulator to which they report.

Every reporting entity that follows FASB pronouncements, which includes banks, credit unions, and public companies, should prepare their financials using the US GAAP Taxonomy. This method will eliminate duplicating the work to develop taxonomies; it will ensure that reported data is interoperable, reducing workload on reporting entities and ensuring the creation of consistent, comparable data.

State and local governments that report under GASB pronouncements need to follow the Governmental Accounting Standards Board (GASB). The SEC should collaborate with the GASB as they did in 2009 with the Financial Accounting Standards Board (FASB) on the development of the US GAAP Taxonomy for public companies. Governments that follow the GASB GAAP accounting standard should be required to follow a GAAP Taxonomy developed and maintained by the GASB.

Agencies that leverage a taxonomy built and maintained by a standard setter like IFRS, GASB, or FASB, can also require the reporting of additional facts beyond what the accounting standard setter includes, for example document and entity information.

As noted earlier, taxonomies are modular. Regulators can require reporting entities to use concepts from more than one taxonomy. The SEC for example, maintains its own taxonomies which are used by public companies at the same time they are using the FASB GAAP Taxonomy. Software tools present the issuer with all the elements needed from all required taxonomies in a seamless process. The issuer goes into the set of taxonomies as shown at right at a single-entry point that gives access to all the concepts needed to prepare their financial statements. The SEC maintains separate smaller taxonomies that represent concepts needed for the document and the entity, such as identifiers, country, currency, exchange, and state or province. These SEC-maintained taxonomies operate in concert with the larger FASB GAAP Taxonomy. Similarly,



companies that report under IFRS accounting standards use the IFRS Taxonomy along with certain SEC-specific taxonomies to prepare their submission to the SEC.

The ability to create "entry points" that access multiple taxonomies allows multiple Agencies to use the same taxonomy for a particular accounting standard and retain the ability to tailor certain features for Agency-specific reporting needs that may not be covered by the accounting standard.

Build taxonomies in adherence to the single semantic data model (XBRL) structure.

Taxonomies must be built following common principles across Agencies. By adhering to a single semantic model structure, Agencies will follow a consistent structure in defining reporting terms, required metadata, and relationships between the terms. The consistency of taxonomies will ensure that data can be reported, collected, extracted, and analyzed in the same way, which will ensure the lowest possible costs across the reporting ecosystem.

Because taxonomies are modular, we also support creating a "base taxonomy" which could contain elements that are used by multiple Agencies, such as "Company Name" and "Company Address." All Agencies could leverage the base taxonomy and expand upon it by building their own taxonomies to include elements needed for agency-specific data collections. This approach was described in detail in the white paper, Data Standards, and the Financial Data Transparency Act (FDTA)[31]

One of the many benefits of using a single semantic data model structure is that Agencies can work on their own to build taxonomies to express their own data collections without the need to coordinate efforts and reach mutual agreement with other Agencies. If Agencies adhere to the single semantic data model structure, their taxonomies (and the data generated using those taxonomies) will be automatically interoperable and shareable. This approach can eliminate a significant amount of bureaucracy.

This approach can be further illustrated by our electrician's example. An electrician installing wiring and current transformers at one house does not need to check with the electrician down the street performing the same job on a different house. Both follow the local electrical codes and standards on their own with the result that each home is set to use electricity in the same way. Different homes, different electrical needs, but both can use electricity to meet homeowner needs.

Collaboration between Agencies also enables the sharing of software tools, database structure, and validation rules which enables economies of scale and reduces costs across the federal government.

[31] Data Standards and the Financial Data Transparency Act (FDTA): https://xbrl.us/wp-content/uploads/2022/04/data-standards-fdta-2023.pdf

Require the LEI as proposed.

We support the Legal Entity Identifier (LEI) as proposed. The XBRL specification supports the LEI and is already included in SEC and FERC taxonomies. To accommodate municipal bond issuance, standards need to be established to define the relationships that governments have with other government entities, for example, component units, obligors, and funds. XBRL can be used to support this because of the relationship linking features of the XBRL specification. This is described in greater detail in the paper, *Identifying the Obligor for Municipal Securities*[32] .

Furthermore, we encourage the SEC to consider the importance of educating government entities to help them understand what the LEI is, and the difference between the LEI and other identifiers with which they are more familiar such as the UEI, EIN, CUSIP, and DUNS.

Management of the LEI needs to be clearly defined given the relationships between reporting entity governments, separately audited funds, departments, and agencies of the reporting entity, as well as blended and discretely presented component units. We recognize that these issues will be covered in greater detail in the individual agency rules that will come out in the second phase of the FDTA, however it is important to begin considering these issues as soon as possible.

We support other identifiers named in the proposal including ISO 8601, ISO 4217, standardized state codes and country codes. We also ask the Agencies to consider establishing the verifiable LEI (vLEI) for the automated authentication and verification of legal entities.[33] GLEIF demonstrated the use of the vLEI to sign its 2023 Annual Report: each of GLEIF's Chair, CEO, and auditors cryptographically signed the report's contents, so that, forever after, anyone consuming the report's contents, including the financial statement data, would be able to ascertain if the contents have been tampered with.[34] The XBRL specification supports the vLEI.

Establish a governance structure to ensure Agencies work together going forward.

The proposal states that the Agencies "*expect to work together on the adoption of the established joint standards in the Agency-specific rulemakings or other Agency actions*," however it includes no requirement or details establishing a governing process to work together. This general statement is too haphazard an approach to the coordination and collaboration required to promote interoperability of financial regulatory data across members of the FSOC. The experience of the SEC and the CFTC, each of which in the last decade initiated swap data reporting collections that were inconsistent with the other, exemplifies what can happen when Agencies fail to work together: Agencies collect data that they then find is "unusable."[35] The factors that historically

[32] Identifying the Obligor for Municipal Securities, July 2024: https://cache.xbrl.us/wp-content/uploads/2024/05/Identifying-the-Obligor-for-Municipal-Securities-July-2024.pdf

[33] See "Introducing the verifiable LEI (vLEI)," GLEIF, https://www.gleif.org/en/vlei/introducing-the-verifiable-lei-vlei.

[34] See "GLEIF Annual Report," GLEIF, https://www.gleif.org/en/about/governance/annual-report.

[35]See Richard B. Berner, Robin Doyle, and Kenneth Lamar, The Data Reporting Challenge: U.S. Swap Data Reporting and Financial Market Infrastructure (Nov. 2020) (n. 19, quoting then SEC Commissioner Scott D. O'Malia), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3541248.

have impeded progress in data standardization for financial regulatory reporting are well-documented and should be studied as lessons learned.[36]

Agencies can coordinate efforts effectively through partnerships with standard setting organizations that reporting entities follow today. The GASB, FASB and the IFRS Foundation, as well as climate disclosure standards organizations such as the International Sustainability Standards Board (ISSB) (which is also part of the IFRS Foundation), come to mind as standards organizations that would be best equipped to build taxonomies to support many of the Agencies data collections. This approach will automatically identify those areas where Agencies may be able to "share" taxonomies, for example FASB GAAP is followed by public companies, credit unions, and banks. Agencies can coordinate taxonomy use, the creation of validation (business) rules to check data quality, as well as database and data extraction and analysis tools, to save time and money.

For those data collections that are strictly designed and used by a single Agency, Agencies can build their own taxonomies which provide highly structured, searchable inventories of collected data (following the single semantic data model structure). The structured nature of the taxonomies will allow for easy review and comparison of data collected across all Agencies.

We urge the Agencies to establish a plan for ongoing coordination to monitor outcomes, share ideas and approaches, and adapt to changes in technologies, industry, and reporting needs. A logical cross-agency forum would be the FSOC's Data Committee, which was chartered, among other things, to "[facilitate] information sharing and coordination among member organizations on data related matters, including data standardization"[37]

The same goes for monitoring developments related to data standards. Inherent in the directive in Financial Stability Act Section 124(c)(1)(B)(v) to "*incorporate standards developed and maintained by voluntary standards bodies*" is an obligation of the Agencies to monitor on an ongoing basis the work of relevant voluntary standards bodies. The United States Treasury's OFR would be well-positioned to perform this role and make recommendations to the implementing Agencies because its staff members have for many years actively participated in standards development work.

If the Agencies were to establish the single semantic data model structure for information collections, the process for implementing Agencies to incorporate XBRL in the Agency-specific rulemakings could proceed as follows.

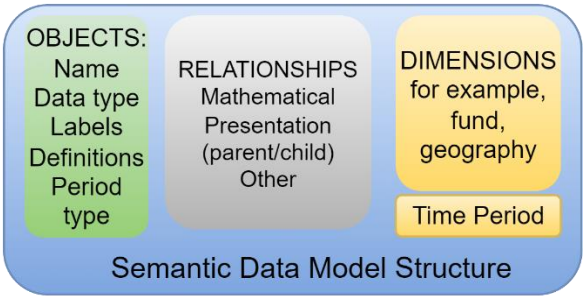
[36] See Richard Berner and Kathryn Judge, "The Data Standardization Challenge," in Systemic Risk in the Financial Sector: Ten Years After the Great Crash, edited by Douglas W. Arner, Emilios Avgouleas, Danny Busch, and Steven L. Schwarcz (2019), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3323719.

[37] See "Charter of the Data Committee of the Financial Stability Oversight Council" (last accessed Sep. 14, 2024), available at https://home.treasury.gov/system/files/261/The%20Council%26%23039%3Bs%20Committee%20Charters_1.pdf.

Step 1. Identify organizations that set standards followed by Agency data collections.
Agencies with reporting entities that follow statutory reporting standards such as FASB, GASB or IFRS, should coordinate with those standard setting organizations. The standards organization can build taxonomies to represent that reporting domain. Agencies with reporting entities that use the same accounting standard, for example, NCUA, the FDIC, and the SEC, should coordinate efforts to use the same taxonomy.

Agencies may collect additional data beyond what is included in the accounting standard, for example, information about the document or entity reporting. Agencies can create their own taxonomy which can be used in conjunction with an accounting standards setter taxonomy; this was explained above in the section covering the re-use of existing taxonomies where possible.

Step 2. Create Agency-specific taxonomies following the single semantic data model structure where voluntary standards organizations are not available.
For those situations where a data collection is not based on a third-party accounting standard, Agencies can establish an inventory of data they collect by building taxonomies for each data collection that adhere to the single semantic data model as shown.



The development of a taxonomy (schema) starts with identifying all the information that may need to be reported by any reporting entity, and then codifying the characteristics of each reported fact including data type, units of measure if appropriate, period type, definition, and label. The second step is in determining the relationships between the facts reported, such as mathematical or presentation relationships. Identifying all the characteristics that are needed to unequivocally understand a fact simply requires following what is needed for the semantic data model.

Step 3. Compare inventories across Agencies to identify overlap.
Once data collections are inventoried in structured taxonomies, it is easy to query across all taxonomies to identify areas where concepts, such as Name or Address, can be consolidated to improve efficiency. This process can take place over time, as the various taxonomies mature, and need not delay the implementation of individual structured data collections. One important benefit of data standards following the single semantic data model structure is that they are designed to change with time, without “breaking” previously created data sets, and maintaining the ability to analyze data over time.

Once taxonomies have been developed in line with the semantic data model structure established, the Agencies should be confident in rolling out their own initial programs.

Step 4. Maintain and develop taxonomies.
Because reporting needs (including accounting standards) change over time, there is an expectation that whichever organization is responsible for the standard itself should be involved in revising the taxonomy to ensure that it remains current. Agencies and standard-setting

organizations will need to coordinate a process for ongoing development, and a governance structure to support it. The SEC and FASB are a good model for this approach. They coordinate efforts each year to develop a new taxonomy release (FASB) and review, approve, and publish the release (SEC). 6,000 companies roll over to a new release of the FASB GAAP Taxonomy each year.

Step 5. FSOC agencies should continue the dialogue to ensure economies of scale.

The Agencies should maintain an ongoing dialogue to share ideas, tools, and even validation rules. Accounting and other calculation rules can often be shared across Agencies because they are all collecting data based on a single semantic data model structure. This approach will generate efficiencies and economies of scale that should increase as Agencies, reporting entities and other data users become more proficient at working with the data, and as taxonomies mature.

Conclusion

We appreciate the opportunity to provide our input, which was developed through a series of in-depth discussions with members of XBRL US. The worst outcome of the FDTA would be to expend significant taxpayer resources implementing a program that falls short of expectations and does not reap the significant benefits that a robust program can attain. With the exception of the adoption of the LEI, **the proposed rule in its current form maintains the status quo**.

With the recommendations we made, 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. XBRL US and our members urge the Agencies to focus efforts on an effective implementation. We are here to support your efforts and offer our expertise wherever we may be of assistance. 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@xbrl.us.

Sincerely,

Campbell Pryde, President, and CEO, XBRL US