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Reduce Company Burden, Cut Government Spending - Standardize Financial Data Reporting Requirements

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Executive Summary

Today's U.S. regulatory reporting environment is confusing and inconsistent, with thousands of public and private companies, as well as financial institutions, reporting to an estimated 60 separate federal agencies[1]. For decades, agencies have taken a siloed approach to data governance, interoperability and the expansion of reporting requirements. There is no standardization in the data values reported nor in the method by which reporting organizations or securities are identified. As a result, companies often report the same information to more than one agency, at different frequencies, using different definitions for the same values.

The single biggest problem caused by lack of standardization is the enormous and unnecessary cost to investors, companies, agencies and American taxpayers, who pay for this bloated system; and the significant burden on companies complying with confusing, duplicative regulatory requirements.

The lack of standards also causes problems for investors, industry and policymakers: the inability to compare reporting organizations, lack of timeliness in receiving information, inaccuracies and significant challenges in using reported data to make investment, business or policy decisions.

In 2010, Australia launched a program to standardize business to government reporting (called Standard Business Reporting - SBR[2]). While implementation required a clear vision, patience and upfront work - today that program is estimated to save Australian businesses and government $1.1 billion annually[3]. Translated to the American economy, which has a GDP 10 times the size of Australia[4], the adoption of the right format, information and identifiers - a financial data standard - has the potential to create $11 billion in savings across the US economy.

However, all data standards are not created equal. Too often today we see the term "data standard" used by industry and regulators without a clear understanding of the term. A standard, by definition, is a single approach that is used by many, e.g., UPC codes, electrical voltage or WiFi signals. This "sameness" squeezes unnecessary cost out of the process. In today's regulatory environment, we often see separate agencies adopt different "standards" and even single agencies requiring many different "standards" for different reporting organizations. For example, the U.S Securities and Exchange Commission (SEC) requires companies seeking crowdfunding to report values for assets using one standard, while publicly traded companies report the same value for assets using a different standard.

These terms for assets are not standardized. A successful standards program is impossible without a concrete comprehension of the components of data standards and a solid program for implementation.

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[1] Based on count at OMB's Office of Information and Regulatory Affairs listing: http://www.reginfo.gov/public/do/eAgendaAdvancedSearch
[2] http://www.sbr.gov.au/
[3] http://ca.xbrl.org/news/australian-tax-office-says-savings-from-sbr-total-over-1-1-billion
[4] Nationmaster Country versus Country: Australia and United States Compared: http://www.nationmaster.com/country-info/compare/Australia/United-States/Economy

This paper recommends adopting the freely available, open XBRL data standard for all financial data reporting required by U.S. regulators. Only the XBRL standard has 1) the appropriate format to render data computer-readable; 2) the appropriate information component to clearly and consistently portray definition, time period, units and other attributes of financial data and; 3) the appropriate identifier mechanism to persistently define needed identifiers such as reporting entity.

The gains for the US economy by adopting this approach will be substantial:

- Significant savings in data collection and processing costs for business, government and the American taxpayer
- Reduced burden (cost) on US businesses
- Consistent, comparable, timely information for investors, businesses and policymakers

Current Situation for Reporting

Given the importance of their business to the economy, public companies, and financial institutions in particular, have significant regulatory disclosure requirements and often report to multiple agencies. These disclosure requirements have evolved over many decades with the result that regulators sometimes have separate but often overlapping requirements for the same organization. The consequence is that reporting requirements are often unnecessarily burdensome and the data reported is inconsistent and difficult to untangle, providing investors, policymakers and the public with information that must be interpreted before it can be used. The following are the primary problems with current disclosure requirements:

Inconsistent data standards required within agencies

Data collection requirements differ from agency to agency; and *often even differ for entities reporting to the same agency*. This is a problem for three reasons: first, data reported to agencies that relies on different standards cannot be easily compared; second, new data standards must be created for each reporting need; and third, software tools used to extract and analyze data based on one standard cannot be used to extract and analyze data based on a different standard. These problems create added and avoidable expense and delays for investors, regulators and taxpayers.

Example: investment company and public company reporting comparison

Recently the SEC finalized a ruling for "Investment Company Reporting Modernization"[5] which established two new reporting forms for investment companies: Form N-CEN and Form N-PORT. The SEC wanted to collect the data covering portfolio holdings in structured format to facilitate its usefulness and noted in the final rule:

"*We have started to use structured data formats to collect, aggregate, and analyze data reported by registrants and other filers. These data formats for information collection have enabled us and*

[5] SEC final rule Investment Company Reporting Modernization: https://www.sec.gov/rules/final/2016/33-10231.pdf

other data users, including investors and other industry participants, to better collect and analyze reported information and have improved our ability to carry out our regulatory functions. "[6]

We agree with the objective of this ruling, but we disagree with the SEC's approach, which is to create a new XML "structured data standard" for investment companies that is different than the one the SEC already uses with public companies. By requiring two data standards within the agency, not only is the information received inconsistent, but it lacks interoperability, causing the agency to need different sets of tools and software to access and analyze the data, which is unnecessarily costly.

Reported facts that investment companies must report include values such as assets, which can be seen in an investment company report for Managed Portfolio Series[7] below.

SHORT-TERM INVESTMENT - 22.6%		
Fidelity Institutional Government Portfolio - Class I, 0.27% (c)		
Total Short-Term Investment		
(Cost $59,616,561)	59,616,561	59,616,561
TOTAL INVESTMENTS		
(Cost $220,447,864) - 100.2%		264,849,389
Liabilities in Excess of Other Assets - (0.2)%		(406,081)
TOTAL NET ASSETS - 100.0%		$264,443,308

Thousands of U.S. public companies already report facts for terms like Assets in XBRL format using the US GAAP Financial Reporting Taxonomy[8] - a collection of terms maintained by the Financial Accounting Standards Board (FASB) that is based on the XBRL standard. The table below shows the term Assets which is available in the FASB collection and that *could* be used by investment companies reporting this data in new Form N-PORT.

[6] SEC final rule Investment Company Reporting Modernization: https://www.sec.gov/rules/final/2016/33-10231.pdf, page 9.
[7] Managed Portfolio Series Form N-Q (which is to be replaced by Form N-PORT), reporting period 9/30/2016: https://www.sec.gov/Archives/edgar/data/1511699/000089418916012860/muhlenkamp_nq.htm
[8] FASB US GAAP Financial Reporting Taxonomy, 2016 release: http://www.fasb.org/jsp/FASB/Page/SectionPage&cid=1176164335312

Assets

Labels

Type	Lang	Label
Standard Label	en-US	Assets
Documentation	en-US	Sum of the carrying amounts as of the balance sheet date of all assets that are recognized. Assets are probable future economic benefits obtained or controlled by an entity as a result of past transactions or events.
Total Label	en-US	Assets, Total
Change Label 2016	en-US	[2015-11] {Modified References}

References

Type	Reference	
Presentation Reference	Publisher	FASB
	Name	Accounting Standards Codification
	Topic	944
	SubTopic	210
	Section	S99
	Paragraph	1
	Subparagraph	(SX 210.7-03(a)(12))
	URI	http://asc.fasb.org/extlink&oid=6879938&loc=d3e572229-122910
Presentation Reference	Publisher	FASB
	Name	Accounting Standards Codification
	Topic	942
	SubTopic	210
	Section	S99
	Paragraph	1
	Subparagraph	(SX 210.9-03(11))
	URI	http://asc.fasb.org/extlink&oid=6876686&loc=d3e534808-122878

This XBRL standard for Assets, along with thousands of other financial terms representing US GAAP financial requirements and industry disclosures, was collaboratively developed by a team of over one hundred individuals from accounting firms, public companies and data consumers in 2007. Today, the FASB maintains the taxonomy through a transparent process that involves updating the terms in the taxonomy annually to reflect the latest accounting standards and industry developments, releasing a draft for public review, revising the draft based on comments received from the public, and submitting the updated taxonomy to the SEC for its review, acceptance and use by all U. S. public companies reporting financial data to the agency.

It is not clear why the Commission would choose to *not* use the existing data standard, as it is widely accepted by filers and data users; and has been in use since 2009. The new ruling not only requires the agency to conduct significant upfront work to create a new data standard based on XML; but the dataset reported under the new standard will be inconsistent with the financial statement data being reported by public companies.

Example: public company and small business reporting comparison

Another example is the SEC's Regulation Crowdfunding (CF)[9], which requires small businesses engaged in crowdfunding activities to file Form C. Definitions for facts that must be reported in Form C do not match the definitions in the US GAAP Financial Reporting Taxonomy for those same facts, nor do they match what will be required of investment companies reporting on form N-PORT.

Below is a partial Form C submitted by a small company under Regulation Crowdfunding. The term for Assets is defined as highlighted in red. Assets for issuers seeking crowdfunding is defined

[9] SEC Regulation Crowdfunding: https://www.sec.gov/rules/final/2015/33-9974.pdf

based on reporting period and there are no clear definition or attributes associated with the concept that can provide guidance to the issuer filing this form.

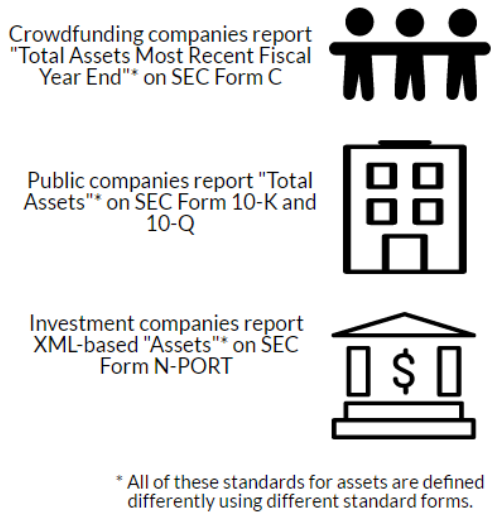
Form C: Annual Report Disclosure Requirements

Annual Report Disclosure Requirements

Current Number of Employees:	5
Total Assets Most Recent Fiscal Year-end:	187737.00
Total Assets Prior Fiscal Year-end:	249450.00
Cash and Cash Equivalents Most Recent Fiscal Year-end:	66031.00
Cash and Cash Equivalents Prior Fiscal Year-end:	200425.00
Accounts Receivable Most Recent Fiscal Year-end:	30156.00
Accounts Receivable Prior Fiscal Year-end:	3473.00
Short-term Debt Most Recent Fiscal Year-end:	991.00
Short-term Debt Prior Fiscal Year-end:	3595.00

The multiple Form C terms that must be used by small businesses to represent assets differ from the term Assets which again, is contained in the FASB's US GAAP Financial Reporting Taxonomy.

The Commission has reinvented the same standard for Assets three times for three different types of companies. ***Three different standards are not better than one reporting standard.***



The detailed and time-intensive work of defining and maintaining standard financial reporting line items has already been done for the US GAAP Financial Reporting Taxonomy; it's a logical step to employ the same standards for other financial disclosures submitted by investment companies and small businesses. Investors would gain immensely from being able to use existing software tools to automatically extract and review data from public companies, investment companies and from small businesses, using consistent definitions and formats.

Lack of standard identifiers across agencies

Identifiers that are not consistent across reporting organizations mean that users must interpret and map the data before they can conduct analysis.

For entities

Financial institutions and corporations often have complex relationships with other organizations. Investors and others doing business with a company need to understand these relationships in order to evaluate risk. A single company may have multiple subsidiaries; it may list on multiple exchanges and countries. Every relationship can impact the risk profile of the company, yet stakeholders do not have a simple method to track these relationships. Regulators, along with those investing in or doing business with an entity should have the ability to easily identify the relationships and understand these potential risks.

Data users also need to be able to track the activities of a single organization and of other organizations related to it across other agency disclosures. For example, a single company reports information (sometimes similar, sometimes different) to multiple regulating agencies. These disclosures should be easily tracked by stakeholders under a common identifier so that all disclosures can be factored into analysis.

For industry classification

Worldwide, there are multiple, sometimes proprietary, industry classification methods used to group businesses by type of economic activity. The North American Industry Classification System (NAIC) is used to classify businesses in Canada, Mexico and the United States. Some U.S. government agencies such as the SEC still use the older Standard Industrial Classification (SIC) system. The Global Industry Classification Standard (GICS) is sponsored by Standard & Poor's and Morgan Stanley Capital International; Thomson Reuters has developed their own Thomson Reuters Business Classification (TRBC). The plethora of industry classification systems used by different organizations results in a lack of consistency in industry descriptors for businesses.

For securities

Currently, there is no consistent method to identify a type of security or the market on which it is traded.

Companies are required to report the ticker of the securities they hold to the SEC but the structure of the ticker symbol itself is not reliable - the notation for different classes of securities is often reported differently. For example, the same class A preferred security is often referred to with

either a dot, hyphen or space notation, e.g. ticker.A or ticker-A or ticker A. This inconsistency limits the ability to automatically search or consume this data.

While the ticker symbol can be used to track pricing data, it cannot be used to track other types of information investors need, for a variety of reasons: 1) it is only associated with securities that are traded on a market; 2) companies often change ticker symbols; 3) the market on which a security is trading may also change.

When money market funds report to the SEC however, they do not report the tickers of the securities they hold, instead they report the CUSIP in their disclosures. It is inconsistent that these funds use the CUSIP as the security identifier while the companies issuing the security report the ticker.

Most investors are concerned with data related directly to the security, such as dividend amounts, payment dates and outstanding corporate action information. All of this data must be compiled by the investor to inform investment decisions, understand expected cash flows from a security, and evaluate actions to take as an owner of the security. There is currently no easy way for investors to aggregate this information because of the different identifiers used to report this data.

For security products

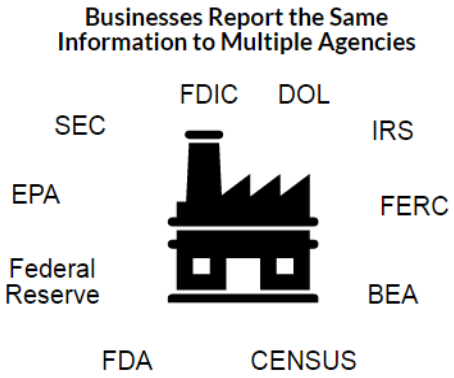
Financial instruments have numerous characteristics and without a proper understanding of these features related to tax liability, level of taxability, etc., they are difficult to compare in an automated fashion. Several efforts are underway to attempt to standardize these characteristics such as ISO-CFI.

For SWAPs data

Currently, there are four different proprietary SWAPs databases run by different organizations: The Depository Trust & Clearing Corporation **(**DTCC), ICE Trade Vault, CME Group and Bloomberg. There is no standard mechanism to identify the data reported from each system.

Duplication of data reported across and within agencies.

Businesses must report information to multiple regulators which is time-intensive and expensive. In some cases, a single entity might report the same information two or more different ways, e.g., in HTML, XBRL, PDF, Excel, etc. to one or multiple agencies.



Example: bank institutions and public company reporting

Banks are required to report financial statements to the SEC and to the FDIC. Although both agencies require this data to be reported in XBRL format, the underlying information standard used (which includes definitions of reported data fields) is unnecessarily different:

- the FDIC requires financial institutions to submit standardized data for call reports based on its own collection of terms (taxonomy);
- the SEC requires FASB's US GAAP Financial Reporting Taxonomy as its data standard.

Values reported for concepts such as Assets, Liabilities, Interest Income and other common financial line items may have different definitions as they are drawn from two different taxonomies. Reporting deadlines for banks submitting this data may be different for each agency. This is needlessly burdensome for the banks who must report the same data to two separate agencies and it is confusing for data users.

Example: public companies reporting to multiple agencies

Public companies often report the same data to multiple regulatory agencies. An XBRL US study[10] reviewed data reported by internal departments at United Technologies (UTC) to government agencies and found significant overlap in data reported. UTC staff reported the same data to the Bureau of Economic Analysis, the Census Bureau and the Federal Reserve that they also report to the SEC. Often the data is reported by different individuals within the company, at different frequencies and at different points in time. Reports are submitted to each agency in varied formats according to agency requirements - PDF, spreadsheet, keyed into an online form, sometimes in hardcopy paper format. **UTC estimated it takes 12,000 man-hours of labor (nearly six full-time equivalents) to comply with requirements for just six agencies each year**, generating 376 pages of content in 21 reports.

The myriad of problems with this process are clear. Inconsistent information about the same organization may be reported and used by investors, policymakers and other data consumers. The data is submitted in formats that often cannot be automatically consumed and that require

[10] Better Data for Better Decisions - Standards to Improve Government Business Reporting : https://xbrl.us/xusnews/case-studies-white-papers/xbrlus-utc-2011/

translation, verification and sometime manual entry before they can be used. The reporting entity wastes significant resources on duplication of effort. This all translates into very avoidable added costs for government agencies, businesses and data users.

Recommendation

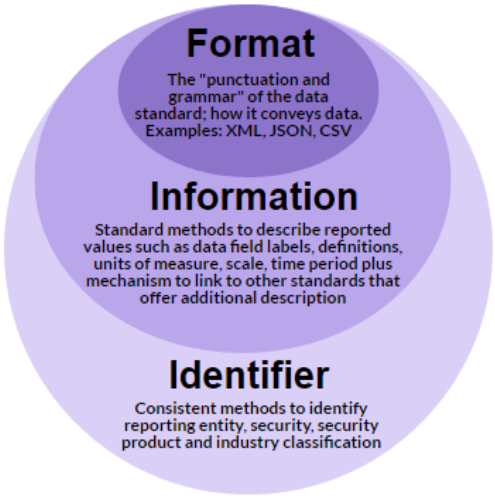
This paper recommends the consistent and comprehensive use of a single financial reporting data standard across reporting entities and across agencies to reduce regulatory burden, improve the clarity of information and save time and money. Before considering individual action steps, it's important to understand what data standards are, how they can differ and why selecting the right data standard for financial reporting is critical to success.

Unpacking the data standard

There are different kinds of data standards which may or may not be appropriate for the data reported. Standards can be "open" or "proprietary". Standards are not software applications. An open standard is free and has no licensing fees associated with its use. This is critical to ensure the lowest possible cost and to encourage a competitive marketplace of tools. Any standard used for regulatory disclosure must be open, non-proprietary and "software-agnostic".

To further understand and compare different data standards requires "unpacking" a standard into three components: **format** - the technical syntax of how data is conveyed; **information** - standard methods to describe reported values such as data field labels, definitions, units of measure, scale, reporting entity and time period; and a standard way to link to existing identifier standards; and **identifiers** - persistent methods to name reporting entity, security, security product and industry classification.

Accurate, comprehensive representation of financial data results from the combination of all three components. XML has a format component. The XBRL standard has all three - format, information and identifier components.



Format

Today, companies report data to regulators in a multitude of formats, including PDF, Excel, CSV, XML, direct database entry into custom databases, JSON, etc. The format is the syntactical means used to structure and communicate the data. It can be thought of as the punctuation or grammar of a sentence. Agencies today do not follow a consistent method of defining the data format across multiple agencies or even within a single agency. A data user receiving information in different formats must use different methods to extract and use it. If the user wants to compare data received in different formats, the data must first be interpreted and translated which requires human intervention and eliminates the ability to automate data processing.

The XBRL specification defines how data is captured and represented in an XBRL format and was historically based on XML. XML was originally chosen as the starting point for XBRL because it has a mechanism to “tag” or identify data so it is computer-readable. XBRL International, which maintains the XBRL technical specification, is now expanding the specification to allow tagged data to be captured and represented in other formats like JSON and standard database schemas.

Information

Descriptive metadata that gives context to reported facts so they can be understood by creators and users of the data, is contained in the Information component. To accurately represent financial data, metadata should include:

- Data fields including labels and definitions
- Units, e.g., currency, volume, power
- Scale, e.g., the data is represented in millions or thousands
- Disaggregation, e.g., breakdown of revenue or gross profit by business unit or geography
- Time period
- Reporting entity

In the XBRL standard, data fields and other descriptive information such as labels and definitions, are collected in a digital dictionary called a taxonomy which can be based on an existing standard like US GAAP, UK GAAP or ISO 20022 for corporate actions messages. Data formatted in XBRL

conveys consistent unit measures by referencing the XBRL International Units Registry[11]. Scale and disaggregation are represented in XBRL through the technical specification. Time periods are represented in XBRL through the use of the ISO 8601[12] standard which is also used by W3C.

The information component may also contain methods to link to other standards that further describe the data reported. For example, this may include linking to existing standards for reporting entity or industry classification. For SEC reporting, XBRL has a method to allow companies to use the Central Index Key (CIK) which is required by the SEC to indicate reporting entity.

Companies that report using the same descriptive metadata standard can not only be easily compared, but their data can be extracted and analyzed using the same software applications.

Crowdfunding example

In the crowdfunding illustration discussed earlier, crowdfunded entities and public companies report facts using different metadata for the same type of information. For example, under Regulation Crowdfunding, reporting businesses must report values for Assets at specific points in time; the time period is embedded in the definition of the data field:

- Total Asset Most Recent Fiscal Year
- Total Assets Prior Fiscal Year

Publicly listed companies that are also required to report Assets to the SEC however, use a different method to indicate the time period for Assets. They use the data field Assets from the FASB's XBRL US GAAP Financial Reporting Taxonomy and they indicate the time period for the value using the ISO 8601 standard. The XBRL standard captures the associated time period separately so that the term Assets can be reused and compared across different time periods.

Because the time period descriptor for Regulation Crowdfunding and for US GAAP reporting are different, companies reporting under these separate disclosure requirements cannot be automatically compared. Moreover, *even two companies reporting the same data under Regulation Crowdfunding cannot be compared, because the time period of the reported data is based on the company's fiscal year which will differ from company to company*. The SEC use of two different time period identifiers for companies seeking funds in the capital markets lacks interoperability; and it also means that different software applications must be used to extract and analyze the data.

Identifiers

The Identifier component contains standard mechanisms to identify reporting entity, security identifier, security product identifier and industry classification. Multiple standards for some of these identifiers exist and have been used by different agencies. For example, to distinguish legal reporting entity, various agencies rely on different identifiers, some open and some proprietary.

[11] XBRL Units Registry: https://specifications.xbrl.org/work-product-index-registries-units-registry-1.0.html
[12] W3C Date and Time Formats: https://www.w3.org/TR/NOTE-datetime

The SEC uses the Central Index Key (CIK) to identify companies across the agency; other agencies have adopted the Legal Entity Identifier (LEI), which is a global entity identifier; some agencies use the Employer Identification Number (EIN), and still others rely on proprietary formats such as CUSIP (Committee on Uniform Security Identification Procedures).

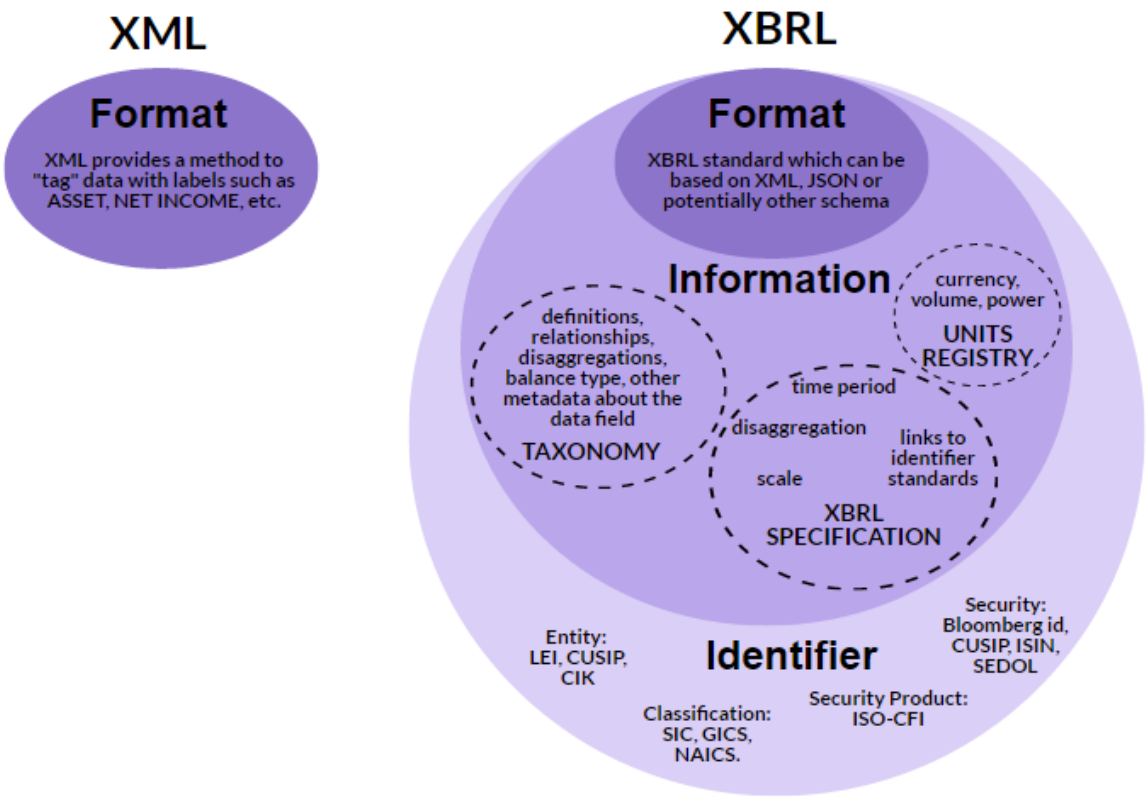
Other forms of classification where disparate standards exist include:

1. Security Identifier, e.g., Bloomberg id, CUSIP, ISIN, SEDOL.
2. Security Product Identifier, e.g., ISO-CFI, FIBO.
3. Industry (Product) Identifier, e.g., SIC, GICS, NAICS

It is important to leverage existing standard identifiers where they are available and agencies must agree on a single identifier for a particular type of classification to allow data-sharing across agencies and to the capital markets. Without the adoption of a single, standard identifier, data users must rely on mapping tables requiring significant maintenance and real-time updates that are unnecessarily manual, prohibitively expensive and prone to error.

Components of XBRL

XBRL contains all three components necessary to accurately and consistently represent financial data. It's **format** layer can be based on XML, JSON or some other schema. The XBRL **information** component relies on *taxonomy structure* to convey data labels and definitions; it relies on the *XBRL International Units Registry* to contain consistent unit metadata; and the *XBRL technical specification* to provide persistent methods to describe scale, time period and disaggregation of data into business unit, geography or other categorizations that a company may need. The specification also provides links to identification standards that are important to fully understand the financial data provided. The XBRL **identifier** component contains links to standard identifiers to provide greater context to the reported data.



Comparing XBRL to XML

Formats like XML support related schemas but schema for financial characteristics such as information and identifier components as noted in the diagram above for XBRL data, is not automatically built in. That schema must be created anew with each implementation and the nature of the data represented in a schema is not guaranteed to be the same across multiple data collection scenarios.

For example, an effort to collect financial data such as assets requires that the currency of the investments is recorded. In XBRL, the link to the Units Registry provides a clearly defined mechanism to record this information; restrictions within the XBRL specification require that currency designation is recorded in the same way by every reporting entity. In XML, indicating currency needs to be defined by the designer of the data collection system. In a separate collection system there is no requirement that the recording of the currency for assets be handled in the same manner. The same is true for durations of time, name of entity reporting the information, breakdowns by classes of security etc. When financial data collection system formats are defined, the method used to define units such as currencies, periods of time, the entity the data relates to, and disaggregation of data is re-created every time. This means data cannot be easily compared without manual reconciliation and the system designer wastes time addressing these issues for every data set.

XML standard

Often the argument is given that a particular reporting need is "simple", therefore even though financial data is being represented, XML is a better choice as data standard. The SEC's final rule for Investment Company Modernization adopts XML rather than XBRL, stating on page 429 "*we believe that requiring funds to report information on Form N-PORT in XML will be both efficient and cost-effective for funds … For this data set, the additional flexibility offered by a broader XML based framework such as XBRL incurs data volume and processing overhead with little incremental benefit; for example, the information funds will report will be as of a single reporting date, the units of measurement are predetermined or are constrained by the data type, and there is little value in customizing the content or presentation.*"

The arguments in favor of XML are not accurate:

- *"[XBRL] incurs data volume and processing overhead*" suggests that XBRL would be more expensive for regulators, reporting entities and data users than XML. We disagree with this assessment. An XBRL implementation for reporting requirements that are financial in nature would be significantly less expensive than starting from scratch building a new XML standard for these reasons:
    - The SEC will incur costs in creating a new standard when they can leverage an existing standard (US GAAP Financial Reporting Taxonomy) for the same needs
    - Software providers to the fund and user communities will need to build new tools customized to work with a new XML standard. Software applications that work with one XBRL taxonomy can be adapted to work with any XBRL taxonomy and existing software applications that are not currently "XBRL-enabled" can be adapted to work with the XBRL specification. This ensures a competitive, cost-effective marketplace of tools for fund data use.
    - Consumers will require manual review of the data because contextual information about each fact reported (time period, definitions, reporting entity) will not be clearly defined in the same way for every fund report submitted. Applications that work with XBRL data can automatically consume reported information because of the greater contextual metadata provided in the XBRL standard; therefore processing costs are actually *less* than using an XML standard which does not provide sufficient context for the reported data and would require manual translation of data before analysis can begin.
- ".. *the additional flexibility offered by a broader XML based framework such as XBRL*". XBRL is actually significantly *less* flexible than XML. The restrictions in the structure of XBRL which require issuers to conform to a single method to convey time period, currency, scale, reporting entity, etc.; and the requirement to adhere to agreed-upon definitions of data fields, are what make the structured data reported consistently understandable and enable the data to be automatically consumed.
- "...*information funds will report, will be as of a single reporting date, the units are predetermined or are constrained by the data type and there is little value in customizing the content or presentation.*" This statement implies that data reported will not be used in multi-fund comparisons or in trend analyses looking at a single fund financials at different time periods or in analyses comparing fund data to other types of reporting entities such

as public companies. The XBRL standard would enable these kinds of analyses to be performed in an automated fashion. An XML implementation would require analysts to manually review and translate the data before such analysis could be performed. Separately, the ruling mentions “little value in customizing”; while XBRL does allow for the creation of custom data fields for line items that are specific to a single reporting entity, the XML standard does too. Any regulatory implementation of standards however can preclude the use of custom elements, regardless of the standard format chosen.

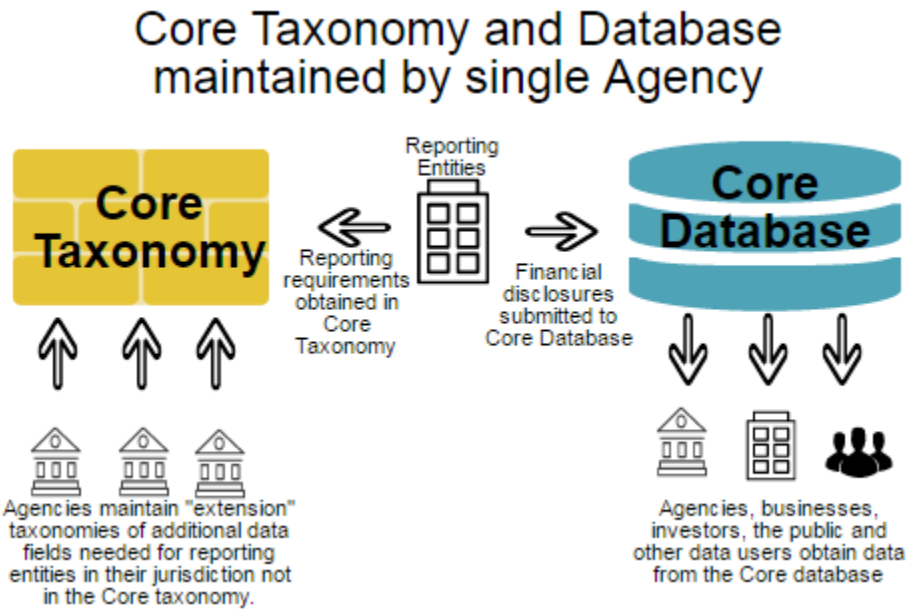
Detailed Recommendations

To support an agency-wide implementation of data standards to reduce costs and enable automation, the following steps must be taken.

The U. S. Congress must authorize the creation of a single taxonomy and single repository governing all regulatory data reported.

A single agency must be assigned responsibility for the development, implementation, ongoing oversight and maintenance of a core financial reporting taxonomy that contains data fields used by all agencies. This proposed taxonomy already has a substantial starting point with the XBRL US GAAP Financial Reporting Taxonomy which contains many, if not most, of the reported concepts that are required to be used by corporations and financial institutions today. Individual agencies may require additional data fields that other agencies do not require of their reporting entities - these additional data fields can be maintained in “extension taxonomies” by that agency and can be referenced in the core taxonomy.

Financial institutions and corporations should be allowed to report ***all regulatory data*** to a single database that is accessible by all agencies and by the public, so that reporting entities do not need to report the same information to multiple agencies. Agencies can extract information from the repository on an “as-need” basis for monitoring and policy-making purposes. The public can have computer-readable access to any public information as soon as it is available in the repository. This mirrors the existing process for SEC reporting, where public companies submit XBRL-formatted data to the SEC’s EDGAR system and the data is available to regulators, the markets and the public on a real-time basis, in computer-readable form.



Agencies should adopt *the same* standard identifiers.

For reported facts

Agencies need to accept data from corporations and financial services institutions using the same definitions for the same reporting terms and the same contextual metadata for time period, units, etc. Agency staff must be responsible for ensuring that datasets are linked and that data reported are of high quality. To create transparency and enable comprehensive analysis by end consumers of data (investors, businesses, agencies or taxpayers), the definition of Assets *must* be the same regardless of the reporting organization - a crowdfunded company, an investment company, a corporation listed on the NYSE, a bank, a mutual fund or an OTC company. Using a single core taxonomy for data fields that are reported across multiple reporting entities ensures this level of consistency and eliminates the expense and waste of duplication that happens today.

For legal entities

The Legal Entity Identifier (LEI) - a unique 20-character code that identifies distinct legal entities that engage in financial transactions - should be adopted for all regulatory reporting. This global, non-proprietary standard is freely accessible and designed to uniquely and unambiguously identify participants in financial transactions. It is a standards-based "neutral" code with no embedded intelligence.

As of the end of January 2016, over 415,000 entities from 195 countries had obtained LEIs from 29 operational issuers. These issuers have been endorsed by a regulatory oversight group of over 70 public authorities from more than 40 countries called the Regulatory Oversight Committee (ROC), which was established in 2013 to oversee and coordinate the use of the LEI (see a list of

ROC endorsed issuers[13]). We expect the LEI, over time, to become the primary identity mechanism for entities around the world.

The XBRL International Best Practices Board (BPB), in cooperation with the Global Legal Entity Identifier Foundation (GLEIF), created a working group to examine and make concrete recommendations about the best ways to create consistency in referencing legal identity within XBRL documents. The working group is developing explicit recommendations about the consistent use of LEIs within XBRL taxonomies and instance documents (XBRL-formatted data files).

For industry classification

To facilitate cross-border comparison of securities, U.S. agencies should work with securities agencies around the world to adopt a single standard for business classification.

For securities

Public companies and financial institutions should be required to identify their securities using an open, nonproprietary, freely available standard.

CUSIP[14] numbers, which are more commonly used in the U.S., are both securities identifiers and entity identifiers but the CUSIP number is not global, and it is a proprietary (not free or open) standard. Another option is the International Securities Identification Number (ISIN)[15] which is defined in ISO 6166 and uniquely identifies a security. An ISIN number however, is linked to a CUSIP number so while it is global, it is not open nor is it free.

A third option is the Financial Institutions Global Identifier (FIGI)[16]; although FIGI was developed and is maintained by Bloomberg, it is an open, freely available standard. Using this standard will allow investors to obtain reliable additional data about that security from alternative locations and eliminate the need for companies to repeatedly report reference data in their filings. This will also align the standard with securities identifiers used in financial services reporting like money market funds.

For foreign issuers, both the principal U.S. market and the principal established foreign public trading market(s) should be disclosed. Because many of these securities are traded as American Depository Receipts (ADR), it is not always easy to identify the underlying security which represents the ADR. In addition, if a security is traded in a U.S. market as an ADR, the ADR ratio[17] should be required to be reported by the company. Currently, this data is not always easily available to investors.

[13] LEI ROC: https://www.leiroc.org/publications/gls/lou_20131003_2.pdf
[14] CUSIP Global Services: https://www.cusip.com/cusip/index.htm
[15] ISIN Organization: https://www.isin.org/
[16] Open FIGI: https://www.openfigi.com/
[17] The **ADR ratio** gives the number of foreign shares represented by one ADS. The **ratio** is typically depicted as, for example, "1 : 3", meaning that one ADSs represents 3 foreign shares.

For swaps data

US Treasury's Office of Financial Research (OFR) has developed a data collection mechanism for swaps data which should be required for all swaps reporting.

How a data standard benefits stakeholders

Data standards will reduce costs, improve accuracy and timeliness and streamline processing for regulatory agencies, public companies and financial institutions reporting in to the agencies and the public.

Agencies

One of the most significant benefits of data standards for agencies is in stripping the costs out of a bloated, inefficient regulatory system. The Australian SBR program requires businesses to report to government agencies using a single agreed-upon standard. This initiative was implemented in Australia[18] and also the Netherlands[19]. The Australian program was initially projected to save $800 million annually; in reality, the program has far exceeded expectations. Six years after implementation, savings across government and business of $1.1 billion have been realized[20]. There are important benefits of standards beyond cost savings, including enhanced timeliness and greater clarity of information delivered which in turn, provide governments access to better, more timely information for decision-making.

Reporting entities

The reporting burden on public companies and financial institutions can be greatly reduced by reporting data once to a single agency rather than to multiple agencies (eliminating the duplication that takes place today). Reporting entities also gain from access to more timely, comprehensive data from peers for their own analysis.

Public and other data consumers

Data consumers gain from inexpensive and easy access to more timely and accurate data filed with agencies. From a single, standardized financial reporting repository, users can query a single source, instead of manually searching for information contained in various filings and formats, submitted by companies to separate agencies. A standardized repository creates the possibility of automated extraction and real-time analysis for all.

The public also benefits from fiscal transparency driving better policy decisions by government, which can evaluate economic trends and corporate and financial activities faster, using more consistent data.

[18] http://www.sbr.gov.au/
[19] http://www.sbr-nl.nl/english-site/
[20] http://ca.xbrl.org/news/australian-tax-office-says-savings-from-sbr-total-over-1-1-billion/

Rationale for XBRL

The XBRL standard is the most cost-effective, efficient means to collect and share actionable financial information necessary to capital formation and regulatory policymaking.

XBRL is the only standard that should be used to report regulatory financial data because:

- XBRL is the only data standard created specifically for financial reporting. It contains format, information and identifier components to allow consistent reporting of the unique characteristics of financial data, which is critical to ensuring clear, consistent, automatable data use.
- The XBRL standard has been in use in the United States by thousands of public companies for nearly 10 years (US GAAP reporting to the SEC and bank reporting to the FDIC) and the existing US GAAP Financial Reporting Taxonomy can be easily leveraged for other agency reporting needs that are financial in nature.
- XBRL is an open, freely available standard.
- XBRL is a global standard used by over 10 million companies in more than 60 countries. Cross-border comparison of companies is critical to investors and policy-makers.
- XBRL provides a streamlined mechanism to revise reporting requirements. As reporting requirements change, the taxonomy can be updated to add new elements, delete outdated elements, and change definitions. Changes made to the taxonomy are published for all to use. Data created from different versions of the taxonomy are easily merged and there is no new learning curve with reporting requirement updates, for creators, users of data or software tool providers working with the data.
- The XBRL specification allows for the creation of validation rules that can help both creators and users of the data check and resolve issues to improve the quality of the data. Validation rules can check accounting relationships, relationships between elements and signage errors, among other issues.
- A single standard for reporting to regulatory agencies reduces costs for agencies, businesses and the American taxpayer.

Risks/Cost/Mitigation

Adopting standards carries certain risks and costs which should be understood upfront to ensure that the issues are appropriately mitigated and the result is a successful program.

Initial implementation cost

Embarking on a data standard implementation requires significant upfront research, analysis and a strong communication program to build a successful taxonomy and repository and to establish the appropriate ongoing oversight. To mitigate the costs and ensure a successful program requires:

- **Identifying and obtaining feedback from all parties that have a stake in the process, from creators of data to intermediaries to data consumers and software providers.** Stakeholders to the process must be continually consulted throughout the process. Only with the proper collaboration can adoption be effected smoothly.

- **Establishing a governance structure to ensure stringent oversight, to check that all requirements are considered and that appropriate skillsets are employed.** Individuals, organizations and agencies providing oversight, as well as those conducting the development work, must have the appropriate level of technical and subject matter expertise in standards development with a proven track record of successful implementations.
- **Creating a clear roadmap and timeline, and communicating with all involved.** Standards implementation and adoption takes time and all stakeholders must be aware of the steps required and the time it will take.

Agencies giving up sovereignty

Government agencies today are accustomed to operating in a silo with little intervention in their data collection and analysis process. To mitigate agency concerns will require making them part of the development and review process and employing a consistent and ongoing communication and education program.

Benefits of the program will not be immediate

It's important to note that the successful implementation of the Australian SBR program required thoughtful upfront planning and significant work involving all stakeholders; and the program took six years after implementation before these enormous benefits could be realized. Expecting a quick fix when it comes to implementing data standards can be hazardous to the success of the program. Benefits can take several years for some stakeholders to realize and everyone must be aware that return on investment is not a concurrent experience: benefits may appear to subsets of stakeholders early in the process (users) and to others in later cycles (issuers).

Changing requirements for existing reporting entities

Consolidating data standards will mean asking many reporting entities to change their current process and adopt different data standards. Change is never easy. To mitigate, we recommend again leveraging a solid education and communication program to help entities understand the benefits and then taking a phased approach to the implementation.

Requirements to Optimize Data Standards

While the XBRL standard today is the most appropriate fit for any financial data produced, we recognize that new data standards may be developed in the future. To ensure that legislators and regulators always work with the most appropriate standards based on the current state at the time, we propose that the following descriptive language explaining data standard requirements be used in legislation and regulations going forward:

- Be platform-independent, non-proprietary and open
- Incorporate standards developed and maintained by voluntary consensus standards bodies
- Be consistent with and implement applicable accounting and reporting principles

- Render information computer-readable and fully searchable
- Be capable of being continually upgraded as necessary
- Produce consistent and comparable data
- Standardize reporting period, reporting entity, unit of measure, and other associated attributes of financial data
- Where possible, relies on internationally recognized and used standards
- Be capable of being extended to accommodate new reporting requirements within other areas or similar reporting needs in other industries

These requirements for a data standard are critical to ensuring that the full benefits of standardization can be recognized across all stakeholders.

Conclusion

Around the world, data standards have been proven to cut government spending on data collection, reduce the burden on business and improve efficiency. We applaud the work of regulators that are considering standards to cut costs and reduce the workload of business. But we caution that a full understanding of how standards work is necessary to truly recognize these benefits. By researching and selecting the appropriate data standard and conducting thorough, comprehensive implementation with the right individuals and organizations involved, substantial savings and efficiencies can be realized throughout government and the U.S. economy.

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