

2016

FpML Response to SEC

Proposed amendment to specify the form and manner with which security-based swap data repositories (“SDRs”) will be required to make security-based swap (“SBS”) data available to the Commission

This document constitutes the FpML response to SEC 17 CFR Part 240 proposed amendment [Release No. 34-76624; File No. S7-26-15] published 23 Dec 2015



Table of Contents

1. Introduction	2
2. FpML Feedback on the Questions.....	4
Request for Comment: Discussion of the Proposed Amendment (on Existing Industry Standards, Commission Schemas) (Questions on pp.24-26)	4
Request for Comment: Economic Analysis (Questions on pp.49)	9
Request for Comment: Collection of Information (pp.56).....	9
3. Comments on Mapping Table to FpML	11
3.1 Comments on “List of Required Reporting Elements that Do Not Exist in FpML or FIXML”	11
custom swap flag (c)(1)(v).....	11
the currencies of any upfront payment, if applicable (c)(3)	11
a description of the settlement terms	11
inter-dealer swap flag	11
the title of any margin agreement (d)(4)	11
the date of any margin agreement (d)(4)	11
if applicable, any flags pertaining to the transaction that are specified in the policies and procedures of the registered SDR to which the transaction will be reported (c)(7)	12
3.2 Comments on other fields	13
Background – standardized versus non-standardized products.....	13
Fields that need to be disambiguated or clarified	13
3. Conclusion	16
Annex 1: Overview of FpML use by various Trade Repositories	17

1. Introduction

Financial products Markup Language (“FpML”)¹, through the FpML Standards Committee, appreciates the opportunity to provide the Securities and Exchange Commission (“SEC”) with comments and recommendations in response to the “Proposed Amendment Establishing the Form and Manner with which Security-Based Swap Data Repositories Must Make Security-Based Swap Data Available to the Commission”² (the “Consultation”).

We welcome the recognition, by the Commission, of FpML as an international industry standard for representing and reporting derivatives data. We are strong proponents of standardization and strong believers that the use of industry standards such as FpML reduces costs, increases efficiencies and, in the case of reporting, leads to better data quality and facilitates data aggregation. We also note that the engagement with regulators in the US, Europe and Asia on various reporting requirements through the FpML Regulatory Reporting Working Group³ (FpML RPTWG) has been very beneficial. We welcome the ongoing dialogue with the SEC.

We analyse reporting requirements in different jurisdictions and continue to enhance the reporting framework to provide global consistency where possible while taking into account specific regulatory requirements. As part of the analysis we publish a global regulatory reporting mapping spreadsheet⁴ comparing FpML coverage to the reporting requirements in various jurisdictions. In response to the G-20 reporting requirements for OTC derivatives following the financial crisis, FpML has developed a reporting framework that can be leveraged for reporting in multiple jurisdictions. A core design principle has been to implement a robust technical framework that could be leveraged by global regulators as new regulations become available. To that effect we have tracked requirements that are specific to a particular reporting regime in a structure that accommodates the needs of multiple regulators.

¹ About FpML

FpML (Financial products Markup Language) is the freely licensed business information exchange standard for electronic dealing and processing of privately negotiated derivatives and structured products. It establishes the industry protocol for sharing information on, and dealing in, financial derivatives and structured products. It is based on XML (Extensible Markup Language), the standard meta-language for describing data shared between applications. The standard is developed under the auspices of ISDA, using the ISDA derivatives documentation as the basis. As a true open standard, the standards work is available to all at no cost and open to contribution from all. The standard evolution and development is overseen and managed by the FpML Standards Committee, following W3C rules of operations guidelines. The Standards Committee has representatives from dealers, buy side, clearing houses, large infrastructures, vendors, Investment managers and custodians. To find additional information on FpML, visit www.fpml.org.

² The paper is publicly available at: <https://www.sec.gov/rules/proposed/2015/34-76624.pdf>

³ The meeting materials and minutes of the various FpML working groups, including the Reporting Working Group are publicly available at: [www.fpml.org](http://www.fpml.org/mg_groups/fpml-rptwg/) in the working group section at http://www.fpml.org/mg_groups/fpml-rptwg/

⁴ Global regulatory spreadsheet: <http://www.fpml.org/docs/FpML-global-regulatory-reporting-mapping-draft.xlsx>

Today all US trade repositories either use FpML or are in the final stages of providing FpML support and FpML is used for reporting in several other jurisdictions. Interoperability with other regulations and jurisdictions continues to be a focus for FpML. Annex 1 contains an overview of the usage by trade repositories.

Specifically, as far as reporting to the SEC is concerned, the FpML reporting working group is analysing the data requirements outlined in the SEC regulation and will address any gaps, including the ones outlined in the Consultation, in version 5.9 of the standard, the final version ("Recommendation") of which is expected to be published in the second quarter of 2016. More information can be found in the FpML roadmap⁵.

Additional analysis is included in the companion spreadsheet (submitted together with this present document) and should be considered an integral part of our response to the Consultation. The Excel analysis complements section 3.2 of this document and the two documents should be consulted side-by-side.

- The Excel analysis provides additional, detailed feedback on the mapping from the common data model to FpML. Where we believe the mapping suggested by the Commission is incorrect or ambiguous, we raise the question in section 3.2 of this document.
- The Excel spreadsheet also provides indicative mapping for two core products: CDS and Equity Swap. We can provide support with the mapping of additional products should the Commission welcome such support.

⁵ The FpML roadmap shows the timeline and coverage of current and future versions of the standard <http://www.fpml.org/docs/roadmap.pdf>

2. FpML Feedback on the Questions

Request for Comment: Discussion of the Proposed Amendment (on Existing Industry Standards, Commission Schemas) (Questions on pp.24-26)

- 1) The Commission has developed two interoperable schemas so that SDRs can make SBS transaction data available to the Commission using already existing standards in a form and manner that can be easily utilized by the Commission for analysis and aggregation. Are there other ways to provide for the representation of SBS transactions that could be easily utilized by the Commission? If so, what are they? What are their strengths and weaknesses?

We believe that the two interoperable schemas suggested by the Commission are sufficient and that no alternative data standard exists that would provide adequate coverage. FpML is widely used throughout the OTC derivatives industry for all products within the remit of SBSR, for applications such as internal straight-through processing, interaction with industry utilities including execution facilities, confirmation services, clearing houses, and custodians, and for trade reporting.

- 2) Should the Commission require direct electronic access be provided by SDRs using only an FpML schema? Should the Commission require direct electronic access be provided by SDRs using only an FIXML schema? Is there another standard that the Commission should consider as acceptable? If so, which characteristics about that standard should make it acceptable to the Commission and how does that standard affect the Commission's ability to normalize, aggregate, and analyze the SBS data?

We believe FpML is the standard most fit for purpose for the following reasons: Although FpML now covers areas beyond derivatives, OTC derivatives is the core part of the standard. Since the first version of the standard we have strived to cover all derivative products and processes and continue to ensure the coverage of these products and processes in FpML. The changes in regulatory requirements, regulatory reporting in addition to central clearing and exchange trading, continue to be the main focus of the FpML working groups. Second FpML is the standard most used in processes related to reporting such as confirmation. Building on these processes, we believe FpML can deliver the highest data quality. Third, FpML is based on the ISDA legal framework that underpins the vast majority of OTC derivatives transactions. This close relationship reduces any ambiguity between the legal representation and the electronic representation in FpML and, as such, further increases the prospect for good data quality. Finally, FpML contains non-abbreviated tags and can be read and understood more easily than syntaxes using abbreviated tags. From a machine processing perspective both standards should be adequate provided they are based on a common data model. The explicit nature of FpML tags makes it easier for business analysts to inspect and understand individual FpML documents. The hierarchical organization of the data facilitates data analysis and aggregation. Related concepts and data fields are nested into XML structures that can be queried programmatically.

The standards process that develops and maintains the FpML standard is open to all and is highly responsive to the needs of the industry. The SEC and other regulators are welcome to participate directly in the process, either by participating in the existing working groups or by considering a form of participation on the FpML Standards Committee, which is the senior governance body. We note that participation on the working groups is not restricted and all

working group materials and communications are freely available on the FpML website. The standard is widely used by market participants for reporting to trade repositories in most regions of the world.

- 3) Does the Commission's approach to providing for direct electronic access using either the FpML or FIXML schemas allow for the accurate representation of SBS transactions as described in Regulation SBSR? If not, why not?

FpML does allow for accurate representation of all SBS transactions. FpML and FIXML are XML-based technical standards and XML is the de facto standard for the representation and exchange of complex information between computer systems. FpML has been developed since 1999 with input from virtually all key players in the industry, on the sell-side, the buy side, as well as from industry utilities, clearinghouses, execution facilities and custodians. It is capable of providing confirmation-level representation of all widely traded OTC derivatives products across all asset classes, including SBS products. Over the past 5 years, it has been enhanced to meet regulatory requirements from a wide variety of regulators. As indicated previously, in the case of SBS reporting, the gaps will be covered in version 5.9 of the standard and any future SEC reporting requirements will be analyzed and included in subsequent versions. In case specific SEC reporting requirements cannot coincide with the FpML version release schedules, extensions could be published. See also our response to question 12.

- 4) Are the FpML and FIXML standards sufficiently developed to require either one of them to be used by SDRs to provide access to the required SBS data? What factors or indicators should the Commission use to determine when an SBS-related standard has become sufficiently developed to require its use for providing the Commission with direct electronic access to SBS data?

FpML 5.9 is currently under development and includes support for SEC SBSR data. We are working to close the gaps identified as part of our analysis and make enhancements in upcoming drafts of the standard. We already published preliminary examples of using FpML for SBSR reporting in 5.9 WD #2, in recordkeeping events example #145, and are continuing to refine that based on feedback from trade repositories and other stakeholders. The FpML roadmap indicates at a high level the coverage in each version. More detail is available in the version release notes (see http://www.fpml.org/the_standard/current)

Building on the experience with the use of FpML for reporting in multiple jurisdictions since 2011, we have analyzed the existing reporting framework and have begun prototyping simpler message formats more directly tied to regulatory reporting requirements, along with rules for translating between the richer, confirmation-oriented existing structures and the new formats. This work is being done based on the lessons-learned from the years of work on development and implementation of FpML for regulatory reporting for many regulators around the world, including the CFTC, ESMA, JFSA, MAS, ASIC, and multiple Canadian regulators, among others. The revised messages retain the existing clear definitions of data fields, but reorganize them into structures closer to regulators' reporting requirements, which may simplify processing for organizations not requiring full confirmation level data details. FpML invites the SEC to consider whether these new formats will be more convenient or appropriate to use than the existing formats, and to consider participating in the process to further develop these formats. [Initial

versions of these formats are included in FpML 5.9 Third Working Draft⁶, published February 11, 2016. See recordkeeping examples in folders “flattened-reg-view” and “reg-report-full-product. More information can be found at: http://www.fpml.org/latest_news/isda-has-published-fpml-5-9-third-working-draft/

- 5) Should the Commission allow SDRs to develop their own standards or leverage other standards to provide access to the Commission? How would the Commission’s ability to normalize, aggregate, and analyze the data be affected if SDRs used different standards and developed different schemas for representing the SBS data?

Given the comprehensive coverage and wide industry adoption of the existing industry standards, we do not see any benefits in the development of a new standard for derivatives reporting. Developing new standards at this point raises a number of issues such as governance, interoperability with other standards and other regulations, and data aggregation across SDRs.

- 6) Instead of leveraging industry standards, such as FIXML and FpML, should the Commission create a new standard or contract with a third-party to create a new standard? Why or why not?

We applaud the Commission for proposing to endorse existing industry standards. This is the right approach to increase standardization in the derivatives markets, in this case related to regulatory reporting. We welcome further engagement from the SEC in the FpML standards development process. Given the coverage, adoption and open source nature of FpML, we do not see a need for a new standard. Deviating from industry standards and standards processes introduces extra cost, confusion, and complexity in translating between existing formats and in this case, SEC-specific formats. In addition, such an approach would create an on-going responsibility to maintain this new standard, with cost and other resource implications for the Commission.

Developing an SEC-specific standard would also create extra work for SDRs to learn and translate to the SEC format, as well as potential issues in the future for data aggregation across regulators.

- 7) Are there other approaches to developing or using a standard that the Commission should consider? Please explain in detail.

FpML believes that an XML-based industry standard is the correct way to proceed.

- 8) What would be the costs to an SDR to provide data in either FpML or FIXML standard?

All SDRs that are looking to register with the Commission are using FpML (In fact all US SDRs are using FpML or planning to use FpML in the near future). To support the SEC regulation, SDRs would have to upgrade to version 5.9 of the standard which will support the new SEC requirements. There is always a cost associated with upgrading systems to a new version, however, the costs are moderate for parties already using FpML.

⁶ FpML version 5.9 Third Working Draft (WD3) is published at <http://www.fpml.org/spec/fpml-5-9-3-wd-3/>

Are there other ways that SBS data should be provided to the Commission? Are there other standards that would cost less but still allow the Commission to similarly normalize, aggregate, and analyze the data?

The complexity and reality of the financial markets call for a flexible format. If we consider CSV as an example of a simpler data representation, we do not believe a flat format can handle the complex data representation required for SBS transactions efficiently, yielding a much more fragile and error-prone transfer mechanism. We believe transformations required to CSV files would be costlier than transformations of XML-based files for which many robust tools and technology are available (e.g. XSLT, XPATH). Using a simpler and less explicit data format would make data aggregation and analysis harder.

- 9) Should the Commission institute a test phase for providing this information in either an FpML or FIXML standard? If so, how long should this test phase last?

The introduction of new processes always requires extensive testing. We support the institution of a test phase where the FpML schema can be tested and refined as required. Typically any test phase would last some months, with the details to be negotiated between the trade repositories and the Commission. FpML would be happy to lend expertise should this be implemented.

- 10) Other than using schemas, is there another effective mechanism for SDRs to provide direct electronic access to the Commission that still achieves similar or better aggregation and consistency results?

We believe that using XML schemas is the best and most cost effective mechanism for providing the SEC with electronic access to SBSR data.

- 11) The Commission intends to incorporate validations into its schemas to help ensure the quality and completeness of the SBS data that SDRs make available to the Commission. Is there another effective mechanism that would help ensure completeness and still achieve similar or better aggregation and consistency results?

Not all types of data validation can be incorporated into schema. For example, rules requiring the presence of certain data elements depending on specific conditions or values in other elements (e.g. specific product, asset class, clearing model, etc.) can be difficult to enforce in schema without developing an overly complex schema. We recommend the development of business validation rules, published by the SEC, that could be implemented by the various stakeholders generating, storing or processing FpML. A validation engine implementing these rules would go beyond schema validation and help detect semantic errors. (As an example, we note that the CFTC developed validation rules for Part 20 reporting using FpML.)

FpML publishes validation rules in the Validation Architecture section of the specification⁷. Should the commission publish a set of rules, these could be added to the validation rules for version 5.9 or later.

⁷ The Validation Architecture can be found in Section 4 of the documentation for any given version of the specification e.g. <http://www.fpml.org/spec/fpml-5-9-3-wd-3/html/recordkeeping/index.html>

We also want to highlight the large set of scheme values FpML makes available in electronic format⁸. The schemes provide standardized reference information based on sources such as ISDA definitions, ISO standards, or regulatory standards or requirements. We welcome input from the SEC on the particular schemes proposed as defaults. We also strongly believe that a stricter enforcing of validation of the scheme values will improve the data quality.

- 12) How should the common data model support reporting requirements that do not yet have equivalents in FpML or FIXML, while preserving the ability to normalize, aggregate, and analyze the data? As discussed in Section II.B.2, the Commission's schemas would require specific extensions of existing FpML and FIXML reporting elements. Is there a better alternative? Specifically, how would the alternative affect SDRs, the Commission, and market participants?

For requirements that cannot be included into FpML in a timely fashion, the use of extension schemas as SEC proposes is the right mechanism and extension are an integral part of the FpML architecture. However, we would like to stress that timely participation in the standards development process to avoid extensions where possible is the preferred way and also allows to streamline the communication to all prospective users of the changes. When extensions are used we highly encourage bringing these extensions back to the standards process for discussion and inclusion in the next version; this avoids the creation of "dialects" down the road. For example, we believe that most of the SEC SBSR fields listed as missing from FpML in the consultation paper can already be accommodated within FpML, and if they cannot be we will need to address this in order for firms to address their data submission requirements under SBSR. For this reason, in an ideal world no SEC extensions will be needed to FpML, because all of SEC's requirements will be addressed timely, as a result of the flexible standards development process.

We note that the extension schemas proposed to date by the SEC focus more on data type validation through the use of restrictions than they do on extensions. We believe that this type of restriction schema is a legitimate mechanism for defining data validation rules, though we caution that these types of schemas (using redefine and restriction) can be problematic for XML binding frameworks, for this reason FpML does not use these constructs in its own schema. This may or may not pose a problem for SDRs using the SEC extensions, depending on the technology choices they make. As we will comment on the Technical Specification, we recommend that the SEC's extension schemas not define new message names unless there is a compelling reason.

⁸ FpML coding schemes are available at <http://www.fpml.org/coding-scheme>

Request for Comment: Economic Analysis (Questions on pp.49)

The Commission seeks commenters' views and suggestions on all aspects of its economic analysis of the proposed amendment. In particular, the Commission asks commenters to consider the following questions:

- What additional information sources can the Commission use to calibrate the cost of setting up and implementing policies, procedures, and information systems to format and submit SBS transaction data in accordance with the Commission's schemas?
- What fraction of reporting participants already use FpML or FIXML to format SBS data?
- What fraction of reporting participants use proprietary XML representations of SBS?
- What additional information sources can the Commission use to calibrate (a) the cost of extending FpML and FIXML and (b) the cost of periodically updating these standards?
- Are there costs associated with the proposed amendment that the Commission has not identified? If so, please identify them and if possible, offer ways of estimating these costs.

FpML generally agrees with the arguments advanced by the Commission in its economic analysis. The estimate under footnote 86 seems plausible. It is always hard to estimate as the cost is usually spread across multiple organizations and varies over time.

From an FpML perspective, the Commission may not have considered in its consultation paper working with ISDA to develop support directly within an FpML version. The Commission could leverage the existing infrastructure set in place by ISDA to update the FpML standard. In particular, the FpML Reporting Working Group is in place to propose or evaluate regulatory changes to the schema. The group includes representation from dealers, service providers, utilities, SDRs, clearing houses, among others. In addition, ISDA staff is assigned to the development of the schema and can drive the development in full cooperation with the Commission. The FpML Standards Committee would ensure the work can be done in a timely manner that would support the Commission's timetable.

In essence, some of the work originally envisaged by the Commission as an extension to the FpML schema could be developed within the FpML standard potentially reducing estimated costs for the Commission and other stakeholders.

Request for Comment: Collection of Information (pp.56)

Pursuant to 44 U.S.C. 3505(c)(2)(B), the Commission solicits comment to:

- Evaluate whether the proposed collection of information is necessary for the proper performance of our functions, including whether the information will have practical utility;
- Evaluate the accuracy of our estimate of the burden of the proposed collection of information;
- Determine whether there are ways to enhance the quality, utility, and clarity of the information to be collected; and
- Evaluate whether there are ways to minimize the burden of collection of information on those who are to respond, including through the use of automated collection techniques or other forms of information technology.

The cost estimate under footnote 93 seems to be on the low end; typically multiple attorneys, programmers and business analysts are involved in large projects such as this one.

In order for the collected information to have practical utility, it should include data fields that will allow the Commission to evaluate systemic risk.

As we noted in the FpML response to the CPMI-IOSCO consultation⁹ on other data elements submitted in October 2015: a key problem that the Commission (and other regulators) needs to solve, in harmonising data elements, is to ensure that this set of data elements is defined clearly and consistently, in such a way that all stakeholders involved in trade reporting have the same understanding of these data elements. The first step of this process is to agree on a set of definitions for the key concepts and terms involved in the reporting process, and to describe how these terms relate to one another.

Regulatory reporting for OTC derivatives is an integral part of the trade lifecycle and values, data and terms are used in other processes such as the confirmation process. Introducing new concepts or terms that do not currently exist in other pre- or post- trade processes requires that these concepts or terms be clearly, precisely and unambiguously defined. For this reason we strongly recommend that the Commission and other regulators agree on a list of key business terms with their definitions and validate these definitions with the industry. Once the terms and definitions are agreed, the actual data elements and their format can be defined.

The FpML response¹⁰ to the CPMI-IOSCO consultation on ODE provides more detailed examples to clarify this point.

⁹ CPMI-IOSCO consultation paper on “Harmonisation of a first batch of key OTC derivatives data elements (other than UTI and UPI)” is publicly available at <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD503.pdf>

¹⁰ FpML response to the CPMI-IOSCO consultation: <http://www.fpml.org/asset/9f50b3d2/bfa5f93d.pdf>

3. Comments on Mapping Table to FpML

FpML verified the mapping from the common data model to FpML (Table 1 listed in the appendix); we found the mapping performed by the Commission to be generally accurate. We believe there is a meaningful number of fields which are ambiguous and will require clarification from the SEC staff.

In section 3.1 we provide comments on the list of fields identified by the Commission as missing (pp.22), and in section 3.2 we provide comments on other fields of interest.

3. 1 Comments on “List of Required Reporting Elements that Do Not Exist in FpML or FIXML”

custom swap flag (c)(1)(v)

This flag identified on p.22 as missing may be missing from FIXML but not from FpML. In FpML, the Commission correctly points out in the table p.62 the mapping to existing FpML flag: partyTradeInformation/nonstandardTerms

the currencies of any upfront payment, if applicable (c)(3)

This flag identified on p.22 as missing may be missing from FIXML but not from FpML. In FpML, the Commission correctly points out in the table p.63 the mapping to existing FpML elements. The location can vary depending on the product e.g. creditDefaultSwap/feeLeg/initialPayment/paymentAmount/currency

a description of the settlement terms

This flag identified on p.22 as missing may be missing from FIXML but not from FpML. FpML includes a full definition of the trade terms required to calculate settlement, including, for example, an indication of whether the trade is cash or physically settled. As discussed below in comments on section 3.2, the SEC’s definition of “settlement terms” is not sufficiently precise to know whether cash or physically settled is what was intended. FpML would welcome a more precise definition of this field, along with example values, so that we can determine the correct mapping or if necessary add a new field. However, since FpML is generally used to confirm trades, including all terms necessary to physically or cash settle them, we believe that it is highly likely that FpML already includes all necessary information.

inter-dealer swap flag

A specific indicator of this has been added in FpML 5.9:

reportingRegime/tradePartyRelationshipType = ‘Inter-Dealer’ (see recordkeeping example #145)

the title of any margin agreement (d)(4)

We believe that this should be addressed by the credit support agreement, because for OTC derivatives margining is generally defined under the CSA. In the case of cleared transactions, the clearing house defines margining rules under the clearing house’s master agreement or CSA. In other words, there generally is no separate margin agreement. If this is not sufficient, FpML would be pleased to add additional documentation types to allow the representation of a separate margin agreement.

the date of any margin agreement (d)(4)

See above.

if applicable, any flags pertaining to the transaction that are specified in the policies and procedures of the registered SDR to which the transaction will be reported (c)(7)

Elements have been added to FpML 5.9 Second Working Draft to support:

- Pricing Context - added a new pricingContext field within tradeHeader/partyTradeInformation to explain the trading or contractual context in which the price was evaluated. The field will be populated when one of the "Pricing Context" defined in <http://www.fpml.org/coding-scheme/pricing-context> applies (e.g, DefaultTransaction, ClearingForcedTrade, NettingOrCompression)
- Unique Identification Code (UIC) - added an example to illustrate support for UIC (requirement for a SBSDR to obtain information from the non-reporting side of a SBS. See Recordkeeping example ex146.)

3.2 Comments on other fields

We have commented below on fields in the mapping table where we believe that the mapping may need refinement or the field may need further clarification.

We seek to clarify the set of fields which are expected to be reported on all trades, vs. those that are only expected to be reported for standardized trades.

Background – standardized versus non-standardized products

FpML has two types of product representations:

- 1) Full, confirmable product representations provide all data fields required to electronically process, confirm, or clear an OTC derivative trade. These are used for products that have achieved sufficient market presence so that it is cost-effective to develop a complete electronic product representation.
- 2) A “generic” product representation is used for all remaining products, for which FpML does not have a complete representation of the confirmation terms. For the generic product, all of the data fields specifically requested by regulators are available, but there may be other terms not specifically requested by regulators that cannot be represented. For example, it may not be possible to represent specialized barrier or payout structures.

Fields that need to be disambiguated or clarified

In the companion spreadsheet we have provided detailed feedback on the proposed mappings by the SEC of its data requirements to FpML.

We would like to point out that FpML’s standard format represents each product differently depending on its terms, therefore some of the SEC’s data requirements must be mapped separately for every different product format that will be supported. For some low-volume products within the scope of SEC’s reporting requirements, the “genericProduct” may be used rather than the FpML standard format, because trade volumes in those product for security-based swaps may not warrant the effort to map to the specific format. In our mapping we have assumed that the existing standard FpML product format is used, rather than the new regulatory reporting messages under development, which are discussed above in Section 2 paragraph (4).

The following points highlight some of the key issues raised by this mapping. In particular, there are a number of SEC data requirements in the regulation that are not precisely defined enough for us to unambiguously understand the mapping, even though we believe that FpML already contains all of the necessary fields. We have tried to explain this issue in more detail below.

- (c)(1)(i) - Underlying Reference Issuer(s) - For single name CDS, the issuer of the bond is the Reference Entity. For Single Equity based products, FpML typically identifies the equity using an instrument ID that is a market data ticker code, CUSIP, or ISIN. We do not currently record a separate issuer field, as this is considered part of reference data. If the SEC requires FpML to transmit issuer data for single equity underlying assets (or other assets such as indexes), FpML may need to be enhanced to allow a separate field to be transmitted. This would have a small impact on the standard, but a significant impact on trade reporting by reporting parties.

- (c)(1)(i) For Underlying Reference Index, does this refer to only narrowly-based indexes that are underlying assets in security-based swaps, or does it also refer to floating interest rate indexes that may be used to calculate funding or other fees?
- (c)(1)(iv) states “Terms of any standardized fixed rate payments” without specifying which specific terms are required and in which formats. For example, this could include day count fraction, fixed rate (possibly described elsewhere), business centers and date adjustment conventions, payment lags, compounding indicators, etc. Broad words such as “terms” should be avoided to define single data fields, and if multiple data fields are required, these should be specifically spelled out to avoid ambiguity. We believe that FpML has all of the data fields required to confirm and settle SBSR transactions, but we are unable to map this field because we don’t understand which specific data point(s) is/are required.
- Related to this point, in the mapping spreadsheet the SEC has in some cases mapped to a whole FpML structure (e.g. paymentDates, resetDates) rather than a single field. FpML cautions that unless the SEC specifically calls out the individual data fields the Commission requires, individual implementations at reporting firms and/or trade repositories may not record all data fields, but only “key” ones. Even if all the fields are reported, there may be substantial differences between products in which of those fields are typically populated, depending on product trading characteristics. For these reasons the SEC should specifically identify individual data fields that must be reported for particular products, in order to receive consistent reporting.
- The same comment applies for (c)(1)(iv) “Terms of any floating rate payments”. In this case, the number of possible data points is even larger and varies by product. For example, the potentially applicable fields are very different between a single name credit default swap, an equity return swap on a common stock, a variance swap on a common stock, or a dividend swap on a common stock, to name a number of possible products.
- In the same paragraph, there is a difference in naming between “Terms of any *standardized* fixed [or floating] rate payments” and “Frequency of any fixed [or floating] payments”. We assume that in both cases “periodic” fixed [or floating] payments should be reported, i.e. payments that occur at regular intervals, as opposed to upfront payments, stub payments, etc. We recommend using the word “periodic” as opposed to “standardized” for all of these uses to avoid ambiguity, e.g. “frequency of any fixed [or floating] periodic payment” and “terms of any fixed [or floating] periodic payment.”
- (c)(3) Price - This value is expressed through a number of fields as part of the standardized representation. We would need a very specific methodology to map it through the “quote” element, and would want to leverage existing Price Notation/additional Price Notation fields (introduced by the CFTC). For example, the price of a CDS could be described based on the fixed rate and the initial payment, or this could be converted into a number of basis points of notional under various methodologies. For an equity swap, the initial price of the underlying stock plus any spread off the floating rate index is referenced. For an equity option, the price could be expressed as a premium either in currency terms or in terms of price per share. The FpML “quote” structure can likely hold any of these prices, but the exact methodology needs to be defined.

- (c)(4) The notional amounts in numerical terms can be difficult to report consistently for some products, particularly equity products. In equity swaps the notional amount is typically calculated based on the market price of the equity times the number of shares, as reset on each reset date. This means that the notional varies over the life of the product. For variance swaps, there is no specific notional; instead there is a variance amount, which represents the size of the trade and is expressed as a monetary amount but may not be directly comparable with notional amounts of other products. For OTC equity options, typically the option size is expressed in terms of number of shares (option entitlement multiplied by number of options), but this must be converted into monetary terms by multiplying this by a price per share, such as the strike price or current market price of the equity. For other products the notional amount may be set after the product is traded. The SEC should provide guidance on how to handle these different situations for trade reporting purposes if it wishes to have consistent results.
- (d)(3) The mappings the SEC has developed for these fields may not be appropriate, and may be made more difficult by the ambiguity of the terminology in the enabling legislation and the regulation. As with (c)(1)(iv), we welcome a discussion to clarify what specific data points are required. For products that are non-standardized (reported using the “genericProduct” representation) it is possible to represent periodic payment frequencies and day count fractions, but not detailed contingencies and calculation amounts, because these vary significantly by product for the small number of typically highly structured products reported using this representation. We do not believe that it will be possible to obtain fully detailed information about all of the settlement terms for all non-standard products without an extensive and time-consuming standardization process across the industry, and therefore recommend that the Commission assess whether there are any specific data point values in addition to payment frequency and day count fraction that will be required.
- (d)(8) method for determining the settlement value & ‘description’ of the settlement terms (which suggests that it is more than just the cash/physical indicator, which is addressed by the settlement type item). As for (c)(1)(iv) and (c)(3), this field is defined too vaguely to be able to be mapped unambiguously. We welcome a discussion on the specific data points that are required. In the spreadsheet we have proposed some mappings.
- (d)(5) any additional data agreement by the counterparties [...] necessary for a person to determine the market value of the transaction. Similar to comments made earlier in this section, e.g. (c)(1)(iv), this field is too broad as defined to be implementable.

3. Conclusion

The FpML standard is widely used for reporting in multiple jurisdictions. The regulatory framework built into the standard over the past several years can be leveraged by SEC. FpML version 5.9 in particular is well equipped to represent reportable data fields required under the SEC consultation paper with little or no change. The FpML standard continues to be developed to meet requirements from global regulators.

We hope that you will find our comments and suggestions useful, and we are available if you would like to discuss these in further detail.



Karel Engelen
Senior Director
International Swaps and Derivatives Association
kengelen@isda.org

Annex 1: Overview of FpML use by various Trade Repositories

Trade Repositories	Credit	Rates	Equity	FX	Commodities
CME (US and EU)	FpML (in dev)	FpML (in dev)	FpML (in dev)	FpML (in dev)	FpML (in dev)
DTCC (US, EU and Asia)	FpML	FpML	FpML	FpML	FpML
HKTR (Hong Kong)	FpML (in dev)	FpML	FpML (in dev)	FpML	FpML (in dev)
ICE (US and EU)	FpML				
NSD (Russia)	FpML	FpML	FpML	FpML	FpML
RTS (Russia)	FpML	FpML	FpML	FpML	FpML



ISDA / FpML Analysis of SEC Mapping to FpML

SEC 17 CFR Part 240 - Establishing the Form and Manner with which Security-Based Swap Data Repositories Must Make Security-Based Swap Data Available to the Commission

<https://www.sec.gov/rules/proposed/2015/34-76624.pdf>

APPENDIX: Mapping of common data model concepts to FIXML and FpML data elements. The common data model is informed by the current versions of the FpML and FIXML standards. Commission staff has mapped concepts in the common data model to existing data elements in both FpML and FIXML. Table 1 depi
Table 1: Mapping of common data model data concepts to FpML data elements. When the FpML column includes a list of terms, this means that FpML expresses the concept as a combination of data elements from that list. Blank entries mean that the concept does not presently have an exact equivalent in FpML.

Legend:

- Green text - additional FpML field
- Red text - incorrect FpML field mapping by SEC
- Orange Text - questions about field mapping by SEC
- Black text - correct FpML field
- Shaded - product neutral fields

§ 901 Ref.	Common Data Model Concept	FpML Data Elements as per SEC	ISDA Notes	Single name CDS (per FpML)	Single Equity Return Swap (per FpML)
(c)(1)	Product ID	productId primaryAssetClass secondaryAssetClass productType embeddedOptionType	There is a repeat of primary and There is a repeat of primary and This is not typically considered an	trade/tradeHeader/partyTradId trade/creditDefaultSwap/produ trade/creditDefaultSwap/embed	trade/tradeHeader/partyTradeIdentifier/t trade/returnSwap/productType trade/returnSwap/embeddedOptionType
(c)(1)(i)	Asset Class	primaryAssetClass secondaryAssetClass		trade/creditDefaultSwap/primar trade/returnSwap/secondaryAssetClass	trade/returnSwap/primaryAssetClass trade/returnSwap/secondaryAssetClass
(c)(1)(i)	Underlying Reference Asset(s)	underlyingAsset	For Equity Return Swap, the underlyer	1. Bond underlyer	trade/returnSwap/returnLeg/underlyer/si
(c)(1)(i)	Underlying Reference Issuer(s)	referenceEntity	Varies by product.	/creditDefaultSwap/generalTerm	singleUnderlyer/equity/instrumentId -
(c)(1)(i)	Underlying Reference Index	index	See questions on document about the sco	N/A for single name CDS. For	N/A for single stock equity swaps; for
(c)(1)(ii)	Effective Date	effectiveDate	Exact path varies by product.	creditDefaultSwap/generalTerms	returnSwap/returnLeg/effectiveDate
(c)(1)(iii)	Scheduled Termination Date	scheduledTerminationDate	Varies by product.	creditDefaultSwap/generalTerms	returnSwap/returnLeg/terminationDate
(c)(1)(iv)	Terms of any standardized fixed rate payments	calculationPeriodAmount or fixedAmountCalculation paymentDates	1. calculationPeriodAmount is for IRS and See comments in document. This it is not	creditDefaultSwap/feeLeg/period creditDefaultSwap/feeLeg/period	N/A is funding is floating. If funding is returnSwap/returnLeg/rateOfReturn/pay
(c)(1)(iv)	Frequency of any fixed rate payments	calculationPeriodFrequency	Varies by product. Applies only to CDS, an	creditDefaultSwap/feeLeg/period	N/A - typically there are no fixed rate
(c)(1)(iv)	Terms of any standardized floating rate payments	calculationPeriodAmount paymentDates resetDates	calculationPeriodAmount (for IRS which is It is not just one field, but a structure. For resetDates (is for IRS which we believe to b	creditDefaultSwap/feeLeg/period N/A N/A	returnSwap/interestLeg/interestLegCalcul returnSwap/interestLeg/interestLegCalcul
(c)(1)(iv)	Frequency of any floating rate payments	calculationPeriodFrequency	Typically CDS has no periodic floating rate usually N/A	usually N/A	returnSwap/interestLeg/interestLegCalcul
(c)(2)	The date and time, to the second, of execution, expressed using Coordinated Universal Time (UTC);	executionDateTime	The same for all products.	trade/tradeHeader/partyTradeIn	trade/tradeHeader/partyTradeInformatio
(c)(3)	The price	quote value	Mapping the price is a complex problem, as discussed in the document.		
(c)(3)	The currency in which the price is expressed	currency			
(c)(3)	The amount(s) of any up-front payments	additionalPayment	For CDS, typically initialPayment is	creditDefaultSwap/feeLeg/init	returnSwap/additionalPayment
(c)(3)	The currenc(ies) of any up-front payments	paymentType	Is the type of the upfront payment require	creditDefaultSwap/feeLeg/init	returnSwap/additionalPayment/additi
(c)(4)	The notional amount(s)	currency notional amount	Varies by product. In Equity, notional is not always an amoun	creditDefaultSwap/feeLeg/init creditDefaultSwap/protection	returnSwap/additionalPayment/additi returnSwap/returnLeg/notional/amo
(c)(4)	The currenc(ies) in which the notional amount(s) is expressed	currency		creditDefaultSwap/protection	returnSwap/returnLeg/notional/notio
(c)(6)	Intention To Clear Flag	intentToClear		trade/tradeHeader/partyTrad	trade/tradeHeader/partyTradeInform
(d)(1)	The counterparty ID [on the reporting side]	onBehalfOf partyId		onBehalfOf/partyReference party/partyId	onBehalfOf/partyReference party/partyId
(d)(1)	The execution agent ID [on the reporting side], as applicable	partyId partyRole		trade/tradeHeader/partyTrad trade/tradeHeader/partyTrad	trade/tradeHeader/partyTradeInform trade/tradeHeader/partyTradeInform
(d)(1)	The counterparty ID [on the non-reporting side]	partyId partyRole		trade/tradeHeader/partyTrad trade/tradeHeader/partyTrad	trade/tradeHeader/partyTradeInform trade/tradeHeader/partyTradeInform
(d)(1)	The execution agent ID of each counterparty, as applicable	partyId partyRole		trade/tradeHeader/partyTrad trade/tradeHeader/partyTrad	trade/tradeHeader/partyTradeInform trade/tradeHeader/partyTradeInform
(d)(1)	[As applicable] the branch ID of the direct counterparty on the reporting side	relatedBusinessUnit role		trade/tradeHeader/partyTrad trade/tradeHeader/partyTrad	trade/tradeHeader/partyTradeInform trade/tradeHeader/partyTradeInform
(d)(1)	[As applicable] the broker ID of the direct counterparty on the reporting side	relatedBusinessUnit role		trade/tradeHeader/partyTrad trade/tradeHeader/partyTrad	trade/tradeHeader/partyTradeInform trade/tradeHeader/partyTradeInform
(d)(1)	[As applicable] the execution agent ID of the direct counterparty on the reporting side	relatedBusinessUnit role		trade/tradeHeader/partyTrad trade/tradeHeader/partyTrad	trade/tradeHeader/partyTradeInform trade/tradeHeader/partyTradeInform
(d)(2)	[As applicable] the trader ID of the direct counterparty on the reporting side	relatedBusinessUnit role		trade/tradeHeader/partyTrad trade/tradeHeader/partyTrad	trade/tradeHeader/partyTradeInform trade/tradeHeader/partyTradeInform
(d)(2)	[As applicable] the trading desk ID of the direct counterparty on the reporting side	relatedBusinessUnit role		trade/tradeHeader/partyTrad trade/tradeHeader/partyTrad	trade/tradeHeader/partyTradeInform trade/tradeHeader/partyTradeInform
(d)(3)	the terms of any fixed or floating rate payments, or otherwise customized or non- standard payment streams	genericProduct	Individual fields should be mapped for generic product as for other	N/A	N/A
(d)(3)	the frequency of any fixed or floating rate payments, or otherwise customized or non- standard payment streams	paymentFrequency resetFrequency	See comments in document. This it is See comments in document. This it is	N/A N/A	N/A N/A
(d)(3)	the contingencies of any fixed or floating rate payments, or otherwise customized or non-standard payment streams	feature	See comments in document. This it is	N/A	N/A
(d)(4)	title of any master agreement	masterAgreement masterAgreementId	In FpML "masterAgreement" is a	trade/documentation/masterAgr tradedocumentation/masterAgre	trade/documentation/masterAgreement/ tradedocumentation/masterAgreement/
(d)(4)	the date of any master agreement	masterAgreement masterAgreementDate	NB: FpML supports both a date the	trade/documentation/masterAgr trade/documentation/masterAgre	trade/documentation/masterAgreement/ trade/documentation/masterAgreement/
(d)(4)	the title of any collateral agreement	creditSupportAgreement identifier	In FpML "creditSupportAgreement" is a	trade/documentation/creditSup trade/documentation/creditSup	trade/documentation/creditSupportAgre trade/documentation/creditSupportAgre