ISDA Safe, Efficient Markets

30 September, 2016

Submitted via email to:
CPMI Secretariat
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and

IOSCO Secretariat
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Re: Harmonisation of the Unique Product Identifier – Second Consultative Report

The International Swaps and Derivatives Association, Inc. ("**ISDA**")[1] appreciates the opportunity to provide the Committee on Payments and Market Infrastructures ("**CPMI**") and the Board of the International Organization of Securities Commissions ("**IOSCO**") with comments in response to the Second Consultative Report referenced above (the "**Second Consultative Report**").

ISDA is a strong proponent of global data harmonization, working in tandem with our members and other buy- and sell-side market participants and market infrastructure providers to promote the important role of global standards in improving data quality and increasing the efficiency and value of global regulatory reporting requirements. We support the initiatives undertaken by the Working Group for the harmonization of key OTC derivatives data elements (the "**Harmonisation Group**"), and its efforts to develop guidance for a uniform global Unique Product Identifier ("**UPI**").

1 Preface

The development of product identifiers for derivatives has the promise to improve derivatives processes and workflow management in different ways. To facilitate the development of a consistent framework that considers multiple use cases, the Symbology Governance Committee was formed, which has as its goal to define a coherent derivatives product identifier framework that can satisfy multiple regulatory and business requirements. Our objectives include:

- Defining the required level of granularity for the different products/asset classes, taking into account regulatory and business requirements;

[1] Since 1985, ISDA has worked to make the global derivatives markets safer and more efficient. Today, ISDA has over 850 member institutions from 67 countries. These members comprise a broad range of derivatives market participants, including corporations, investment managers, government and supranational entities, insurance companies, energy and commodities firms, and international and regional banks. In addition to market participants, members also include key components of the derivatives market infrastructure, such as exchanges, intermediaries, clearing houses and repositories, as well as law firms, accounting firms and other service providers. Information about ISDA and its activities is available on the Association's website: www.isda.org.

- Evaluating approaches to the format of actual identifiers (length, intelligence, ...) and help build industry consensus;
- Facilitating infrastructure build-out and drive adoption according to agreed principles.

Through the Symbology Governance Committee, which has representation from buy side, sell side, vendors and infrastructures, we provide input into and steer primarily regulatory driven initiatives following the four principles[2] we deem essential for a successful product identifier for derivatives:

- Appropriate Granularity
- Open Governance
- Open Source Data and Competitive Market Infrastructure
- Business usage and post trade adaptability

Development and maintenance of multiple product identifiers is cost prohibitive, we therefore advocate for a common framework that supports multiple requirements. In addition we strongly believe that multiple product identifiers that are not built on a common framework will negatively impact data quality as the related data will only be created and used for specific purposes. Product identifiers that are used throughout the whole trade lifecycle and in a variety of trade processes will lead to better data quality.

We support the creation of the governance working group under the Financial Stability Board ("**FSB**") and look forward to the consultations on governance. Open governance is a key aspect of any product identifier infrastructure. The appropriate checks and balances need to be instituted to avoid any anti-competitive behavior. This is particularly vital if the issuer of the identifier, because of the regulatory mandate, has not been subject to a competitive selection process.

We are concerned however about the different timelines for the completion of the UPI recommendations on the one hand and the FSB governance work on the other. In particular in the case of the UPI, the technical questions and the governance questions should be addressed simultaneously. An example relates to the identification of underliers, which is a key question that needs to be addressed for any UPI solution. In the case of underliers, the technical questions cannot be looked at in isolation but should be considered together with the governance and Intellectual property questions.

We note that in the Second Consultative Report, CPMI-IOSCO is taking into account the adaptability of the UPI for a broader range of financial products, beyond OTC derivatives. ISDA proposed this position in our response to the first consultative report. We welcome CPMI-IOSCO's support of this approach.

While we understand that CPMI-IOSCO's primary goals – global data aggregation and reporting of OTC derivatives to Trade Repositories (TRs) – should not be hindered, we appreciate CPMI-IOSCO's acknowledgement that the UPI could be leveraged to define other product identifiers in other use cases for product identifiers.

[2] ISDA paper 'Principles on the Development of Derivatives Product Identifiers': http://www2.isda.org/functional-areas/symbology/ (May, 2016)

We welcome this updated view. However we believe a further step towards integration of various approaches should be considered and reiterate our belief that to increase data quality, improve consistency and provide the most cost efficient product identifier infrastructure, there should be one common framework for product identifiers that covers the different use cases, including the specific CPMI-IOSCO reporting and data aggregation requirements.

The core values of this common framework are summarized below:

- The framework should have logical aggregation of data attributes that address specific use cases in increasing order of granularity;
- Subsequent levels in hierarchy should build on data attributes identified in higher levels;
- There should be a balance between data attributes associated with a specific level and the number of unique identifiers which would result;
- Although multiple levels can exist in the hierarchy, careful consideration should be given to the issuance of identifiers at a specific level based on the use cases it addresses, due to the high costs associated with the issuance and maintenance of identifiers. Identifiers issued at each level of granularity would be linked as a parent-child relationship using fields in the metadata.

The work done with ISO/TC68/SC4 Study Group 2 (SG2) embeds these core aspects into the ISIN framework that is currently being developed for OTC derivatives. We encourage CPMI-IOSCO to further leverage this framework and help refine it to cover the UPI requirements.

In the §2 Key Concepts, CPMI-IOSCO clarifies the three categories of reference data elements for a UPI:

(i) instrument type;
(ii) instrument characteristics; and
(iii) underlier information.

This confirms that the CPMI-IOSCO use case for the UPI requires representation of products at a coarser level of granularity than is the case for other product identifier use cases the industry has considered to date. While this prevents overlap, we still believe usage of a common framework for product identifiers will be beneficial to all parties.

In our responses to the questions we will address the UPI requirements separately and independently from the ISIN solution. The appendices to our response include an analysis comparing the UPI reference data elements as proposed in the Second Consultative Report, with the required data elements currently specified at the coarsest level of granularity in the ISIN derivatives framework (level 1). This analysis was done for a number of products across multiple derivatives asset classes.

2 Principles

Jurisdiction neutrality

We agree with the principle of jurisdiction neutrality and the requirement to have the reference data and all values included to be standardized across all jurisdictions to the fullest extent practicable. We offer that the FpML values and reference data is jurisdiction agnostic, standardized, free of charge and

has been used to document and streamline derivatives transactions and processing for a long period of time. It is a key building block for the ISIN and could be equally valuable for a UPI solution.

3 Questions

We note that the questions related to granularity on page 19 are preceded by "With respect to the degree of granularity for identifying the underlying asset(s) or index (indices), the CPMI-IOSCO invite comments to respond to the following questions". However, in our response we do cover the instrument data elements in addition to the data elements for underliers.

***Question 1:* Do you believe that the data elements within each asset class described above are appropriate? Why or why not? If there are additional subcategories that you believe should be included for one or more asset classes, please describe them and discuss why you believe they should be included.**

We do have the following comments on the data elements proposed:

- Underlying asset/contract type and underlying asset/contract subtype: The meaning of the "characteristics of the asset" is unclear. How should this be combined with the Underlier ID? We suggest using solely the terms contract type and contract subtype. In case of the contract type values for Interest Rate, we would like to point out that, for example Fixed-Floating, OIS, zero coupon and inflation are potential values for this data element and as such mutually exclusive. However, an inflation swap can be fixed-floating or fixed – fixed, and a fixed-floating swap can be zero-coupon or OIS.
- In the Credit asset class, further specification is needed to determine the appropriate seniority value in case of basket or index trades.
- Generally, for hybrid trades that contain characteristics from more than one asset class, guidance needs to be provided on how to decide on the appropriate asset class value.

Furthermore, we are unsure that the level of granularity proposed will provide an adequate, or accurate, aggregation of risk. The data elements put forth in this proposal are very similar to the elements that exist in the current CFI standard. However, as indicated below, the current CFI standard might need revision. As a result, leveraging the attributes and values in this code for the UPI reference data elements could result in flaws.

The 2015 CFI update to include coverage for OTC derivatives was heavily reliant on the first version of the ISDA taxonomy. When providing input to the CFI, we focused on ensuring that at a high level the ISDA taxonomy and CFI could be mapped. However, the ISDA taxonomy in most asset classes is more granular than the CFI.

The ISDA taxonomy has since been revised (taxonomy 2.0) based on the input from reporting parties. The revisions reflect market evolution and make useful distinctions between products which align with industry standard terminology defined in the relevant ISDA product definitions and confirmation templates. Those changes are not reflected in the CFI for two reasons: 1) the revision process of CFI is much slower than the revision process of the ISDA taxonomy and 2) there are inherent limitations in the CFI code that do not allow for all details to be included, as further specified below.

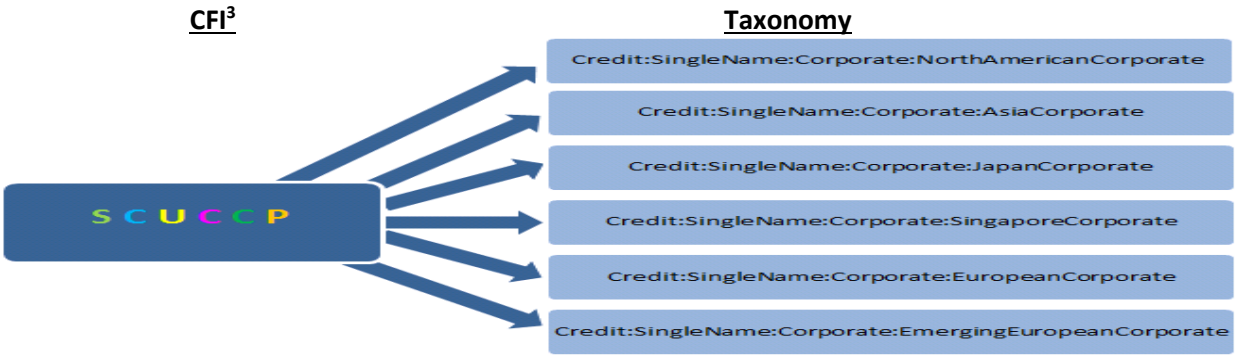
Mapping the ISDA taxonomy to the CFI code was restricted by the limitations of the CFI structure which only allows 6 positions, with the first two positions taken up by the product type and the asset class. Each of these 6 positions only has 26 available choices letters of the alphabet which further restricts the choices. As a result, using the CFI to define the data attributes for the instrument part of the UPI reference data would transpose the CFI limitations on the UPI instrument reference data.

Instead, we suggest that the product attributes resident in the ISDA Taxonomy could be a more appropriate and complete starting point for the UPI, since the ISDA Taxonomy does not have these restrictions and is more readily able to be revised or expanded to meet the level of granularity of the reference data elements specified in the Second Consultative Report. In addition, the ISDA Taxonomy is used as the starting point for the ISIN derivatives product identifier framework.

We would like to point out that the ISDA Taxonomy is open and freely available, with a well-defined open maintenance process that allows for quick updates where required. The ISDA Taxonomy reflects the experience from derivatives reporting parties and is used in multiple jurisdictions. While we believe ISDA is well positioned to be the registration authority for the derivatives taxonomy we are open to changes in governance and future maintenance of this derivatives taxonomy.

Below are examples which demonstrate some of CFI's limitations as compared to the ISDA Taxonomy:

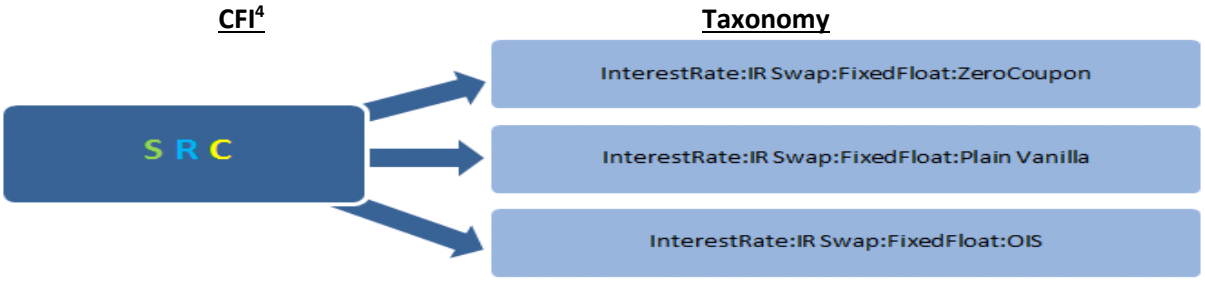
Example 1A - CFI uses the same value for single name CDS of multiple regions whereas the Taxonomy is able to achieve further granularity:



[3] S=Swaps; C=Credit; U=Single Name; C=Credit Default; C=Corporate; P=Physical.

Example 1B - The Taxonomy is able to more specifically identify products in cases where the CFI, due to the limitation of 6 characters, makes an attribute mutually exclusive:

Zero coupon, plain vanilla and OIS sit at the same level within the CFI and therefore would all be categorized identically with the first three characters of SRC[4], thus providing no ability for regulators to distinguish between these products to enable a useful analysis or comparison of transaction data reported using the relevant UPI. The Taxonomy allows these distinctions to be made, as demonstrated below.



Finally, while we suggest considering the use of the ISDA Taxonomy as the basis to determine the instrument reference data elements and their values, we believe it is equally important to use an existing industry taxonomy – CFI or ISDA Taxonomy – in its entirety without making changes or additions to that taxonomy that are not agreed through the related existing review process. This to avoid the creation of yet another taxonomy, as a derivation of an existing one.

***Question 2*: Do you believe generally that the value "Other" is required in certain data elements? If so, which ones and why?**

Yes, we believe that the concept of "Other" is required for certain data elements. The actual value might differ and values such as "exotic" might be more appropriate for certain data elements. The data elements where other is required are driven by the underlying taxonomy chosen. For example, The ISDA Taxonomy uses "Other" for Base Product in Equity, "Exotic" for Base Product in Rates and FX, and "Other" for Sub-Product in Credit. The use of "Other" as concept allows for a UPI to be assigned that at least gives a trade an asset class distinction and accommodates for non-standardized products.

***Question 3:* For an OTC derivative product based on a custom basket of securities or assets, please provide your view of the optimal means of representing that OTC derivative product. Do you believe that it is practical to include all of the underlying securities or assets and their risk weights in the UPI reference data? If not, how do you believe that the elements of the custom basket and their risk weights should be reported to a TR?**

As part of the reporting of derivatives transaction data, the representation of basket constituents and their weighting is possible within certain constraints, as we indicate below. More work is needed to agree on the best way to represent this data, in particular for the more bespoke baskets. However, as far as the UPI is concerned, we believe that information on basket underliers should not be part of the UPI itself, nor should it be part of the metadata for that particular UPI. Inclusion of this information in

[4] S=Swaps; R=Rates; C=Fixed-Floating

the UPI would be very difficult as basket weightings might change over time and different industry participants may calculate weightings differently.

Determining when a basket of underliers is unique would be extremely challenging and is likely to result in countless UPIs that apply only to a single transaction. This contradicts the view expressed in the Second Consultative Report that a UPI is meant to represent a product and not a transaction. Basket constituent information, where required, can instead be part of the trade data reported to Trade Repositories.

Representation of index constituents and baskets is a complex issue. We support global regulatory coordination and agreement on the best way to represent these. We suggest a separate Task Force with industry and regulatory representation to develop a proposal for the representation of indices and baskets. Such a Task Force could fall within the CPMI-IOSCO work on Critical Data Elements (CDE).

We recognize the inherent challenges of identifying underliers by means of proprietary identifiers and we welcome further discussion with the Harmonisation Group to explore a solution which would be more expedient for a wider audience of market participants. See our response to Q6 for further feedback on proprietary identifiers.

The following are points to consider when defining the representation of baskets for purposes of reporting transaction data to a TR:

- If the list of constituents is long, it might not be practical to provide all constituents and the additional information derived from a full list might not justify the cost of completeness in terms of work but also of the negative impact on data quality. We suggest exploring an approach where the risk weight of the constituents is taken into account and only a subset of the constituents with the highest risk weightings is included.
- The order of the constituents is important for example in cases where two different submissions need to be matched. Rules need to be developed to standardize this aspect.
- Basket constituents can have different types of identifiers (ISIN codes, Index names, short names, other). Agreement is needed on the how to represent each constituent.
- How to deal with dynamic baskets where components change regularly, sometimes multiple times per day.

Some of the difficulties with the identification of constituents are illustrated by the following basket examples:

Example equity only basket but contains both shares and indices

Basket component name	Identifier	Weight/Units	
Royal Dutch Shell plc London - A Share	ISIN	10%	*percentage*
BP PLC	ISIN	10%	*percentage*
Dow Jones IA	Index Name	10%	*percentage*
ftse 100	Index Name	70%	*percentage*
		100%	

This could be represented, by way of example in a table or as comma separated values:

Identifier	Weight/Units		
GB00B03MLX29	0.1	*or as comma separated values...*	GB00B03MLX29, 0.1, GB0007980591, 0.1, Dow Jones Industrial Average, 0.10, FTSE 100 Index, 0.70
GB0007980591	0.1		
Dow Jones Industrial Average	0.1		
FTSE 100 Index	0.7		

Example basket for exotic hybrid transaction which tracks performance and hedges across a number of asset classes

Basket component name	Identifier	Weight/Units	
Royal Dutch Shell plc London - A Share	ISIN	20%	*percentage*
Oil Swap	UPI-ISDA Taxonomy	20%	*percentage*
Interest Rate Swap USD 3M LIBOR	UPI-ISDA Taxonomy	25%	*percentage*
S&P 500 Index	Index Name	35%	*percentage*
		100%	

This could be represented, by way of example in a table or as comma separated values:

Identifier	Weight/Units		
GB00B03MLX29	0.2	*or as comma separated values...*	GB00B03MLX29, 0.2, Commodity:Energy:Oil:Swap:Cash, 0.2, Interest Rate:IR Swap:Fixed Float, 0.25, S&P 500 Index, 0.35
Commodity:Energy:Oil:Swap:Cash	0.2		
Interest Rate:IR Swap:Fixed Float	0.25		
S&P 500 Index	0.35		

Example basket for exotic hybrid transaction which tracks performance and hedges across a number of asset classes both long and short

Basket component name			
Royal Dutch Shell plc London - A Share	Identifier	Weight/Units	
Oil Swap	ISIN	1500	*shares*
Interest Rate Swap USD 3M LIBOR	UPI-ISDA Taxonomy	-2000	*barrels*
S&P 500 Index	UPI-ISDA Taxonomy	$ 2,000,000.00	*notional amount*
	Index Name	1000	*index units*

This could be represented, by way of example in a table or as comma separated values:

Identifier	Weight/Units		
GB00B03MLX29	1500	*or as comma separated values...*	GB00B03MLX29, 1500, Commodity:Energy:Oil:Swap:Cash, -2000, Interest Rate:IR Swap:Fixed Float, 2000000, S&P 500 Index, 1000
Commodity:Energy:Oil:Swap:Cash	-2000		
Interest Rate:IR Swap:Fixed Float	2000000		
S&P 500 Index	1000		

<u>Question 4:</u> How should underlying assets and reference entities be represented in the UPI data library? Would LEIs be suitable, at least for corporate reference entities? Why or why not? Are there suitable identifiers for indices? If not, is it feasible to use an existing identifier such as an ISIN code for them?

Specifically, with regards to the suitability of LEI to identify underlying assets and in particular corporate reference entities, we support the work of the FSB, LEI Regulatory Oversight Committee, and the Global LEI Foundation and advocate the global LEI for reference entity identification. We note that currently, entities that are not trading financial instruments are not obligated to obtain an LEI, or may not be compelled to maintain LEIs as counterparties to a derivatives transaction, hence not all corporate reference entities might have an LEI. In addition, when these entities undergo an event such as a merger, dissolution, or succession, there may be a time lag before their LEIs are updated. However, we recognize the ongoing "level 2" work to augment use of the LEI to identify entities within more complex relationships and hierarchies. In addition, we expect impending regulatory rules to grow the use of LEIs to a broader range of counterparties and asset classes over time. CPMI and IOSCO could further facilitate LEI use by establishing the LEI as the primary identifier to be used for underliers, where appropriate. However, any mandate should allow for the usage of alternatives while the LEI coverage is expanded and should recognize that LEIs may not be appropriate in all cases and might not be available for all corporate reference entities.

<u>Other identifiers that can be used to identify underlying assets</u>

ISIN/CUSIP

ISIN/CUSIP is suitable as an identifier of underliers. ISINs can be used whenever the underlier of the derivative is a security. However, the accuracy of the ISIN as an identifier for an underlier is limited in that the underlier for the transaction (e.g. the Reference Entity for a credit derivatives transaction) could be either the issuer or the guarantor.

Specifically with regards to indices, we support the use of ISIN for indices where such an ISIN exist, however in most cases we believe an ISIN for indices is not available to date.

ISO 4217 codes (currency codes)

The ISO 4217 code to identify the underlier in FX trades provides a known, defined set of allowable values governed by ISO for market participants and trade repositories to build to. In cases where a trade is executed using a non-ISO currency, we recommend that for purposes of reporting, parties should maintain a mapping to the relevant ISO 4217 currency code to report only the allowable values. For further details, see our response to the *Consultative report on the Harmonisation of key OTC derivatives data elements (other than UTI and UPI) - first batch*.[5]

FIGI

The Financial Instrument Global Identifier (FIGI) is a 12-character, semantically meaningless alpha-numeric code which identifies more than 330 million financial instruments including listed and OTC derivatives. FIGI is an established global standard of the Object Management Group (OMG), and is issued and distributed today by Bloomberg LP as Registration Authority under the auspices of the OMG.

[5] Joint ISDA/IA/GFXD response to *CPMI-IOSCO Consultative Report on the Harmonisation of key OTC derivatives data elements (other than UTI and UPI) – first batch*, http://www2.isda.org/attachment/NzkzNA==/CPMI-IOSCO%20Response_ODE_9%20Oct%202015_FINAL.pdf.

Other potential identifiers
Other potential identifiers for underliers are the Reuters Identification Code (RIC) and Markit RED codes.

Identifiers for indices
There are a large variety of indices existing across the various asset classes, issued by a diverse set of index issuers. We recommend usage of the identifiers that are provided by the issuers of the indices. More work needs to be done to provide an inventory of the various indices, the identifiers linked to them by the issuers and market penetration of each of the identifiers. Taking into account IP considerations, a list of preferred index identifiers should be made available for usage in connection with the UPI. We note that work in this direction has recently started under ISO TC8/SC4 SG2 and encourage the Harmonization Group to contribute to and leverage this work.

***Question 5:* Do you envisage any obstacles to including the source of the identifier for the underlier as part of the reference data element for the underlier? Please explain and justify.**

We support the inclusion of information regarding the source of the identifier, however work is needed to define agreed reference sources as much as possible. We note that the inclusion of the source does not prevent mismatches. When two different sources are used, inclusion of the source explains the difference but does not make the matching easier. Agreement to use standard reference data should be strived for, but may not be possible in all cases.

FpML has a rich set of standardized reference data which includes the exact source with an additional categorization off the source as internal or external. An internal source means the reference date is defined and maintained by FpML. The classification external is used when the reference data is defined and maintained by an external source. An example of this latter case is the definition of the currency codes, by ISO. See: http://www.fpml.org/reference-data/ for more information.

The below example illustrates one code scheme, the currency Scheme Identification in FpML:

> **URI:**http://www.fpml.org/coding-scheme/external/iso4217-2001-08-15
> **Location URL:** http://www.currency-iso.org/en/home/tables/table-a1.html
> **Description:** A valid currency code as defined by the ISO standard 4217 - Codes for representation of currencies and funds http://www.currency-iso.org/en/home/tables/table-a1.html.

***Question 6:* Could there be issues related to including proprietary benchmarks and indices in publicly available reference data or publicly disseminated UPIs? Please elaborate on any issues, such as licensing, that may exist.**

The use of proprietary benchmarks needs to be weighed against the availability of non-proprietary alternatives and the data quality provided by both. The term proprietary might cover different flags. The main criteria in our view is whether or not the index or identifier and the underlying reference information is available for free. We note for example that the usage of ISIN, generally considered to be non-proprietary, is not free in all cases.

Specifically, for purposes of the CPMI-IOSCO UPI, the need to create and provide a UPI should not create any additional cost for market participants in terms of accessing information to create the UPI.

While the preference is to use open source identifiers that are free whenever available, open-source and freely available identifiers for underliers may not exist, or be widely used, for all asset classes. Proprietary identifiers are extremely valuable to the consistent and accurate identification of swap underliers. The issuers of such identifiers are commercially viable because they recognized an industry need for instrument-specific identification and provide services that allow market participants to uniformly agree and confirm the underlier to their transactions.

For some products or asset classes, market participants that are not subscribers to the services of a reference data service provider may not have equal ability to use proprietary underlier values or codes. In these cases, they should not be compelled to use the services or the associated identifiers. However, where a standard is predominant to that market, market participants that have access to these standard identifiers should be encouraged to use them.

If the underlier or underlying index can be identified by the reporting counterparties via an industry accepted uniform but proprietary identifier for an overwhelming majority of the derivatives transactions traded in an asset class, then regulators should embrace their use to achieve good data quality that supports their ability to meet their transparency and oversight obligations. Prohibiting use of such proprietary identifiers forces all parties to use less efficient, less accurate values that will not be consistent with the values submitted by others. In addition, regulators should work with the providers of those proprietary identifiers to make a minimum set of required information available for free. Work done under ISO SG 2, as noted in our response to question 4, can again be useful in this regard.

<u>Question 7:</u> What are the arguments for and against the use of a dummy UPI code or an intelligent UPI code, or having both types of code coexisting?

We are strong advocates for UPI codes that do not carry intelligence in the code itself but where the code serves as a pointer to a central data dictionary. We are not proponents of intelligent codes for the following reasons:

If there is a change in the metadata, intelligent UPI codes would need to be amended, thus violating the principle of persistence, whereas dummy codes support the CPMI-IOSCO goal of persistence. The metadata underlying dummy codes can be changed with no disruption to the UPI code itself and without additional operational burden for market participants.

A consequence of including the metadata information as part of an intelligent code is that the amount of information that can be included is constrained; non-intelligent codes do not have such a limitation.

General best practice in data management is to utilize non-intelligent codes because of their persistence and scalability. Examples include the LEI. Finally we note that an intelligent alias can be assigned to a non-intelligent UPI at any time if desired for human readability purposes.

Recommendation:
For the UPI we recommend a non-intelligent code that leverages the derivatives framework with multiple levels of granularity and a corresponding information database ("data dictionary"). This non-intelligent code can then be supplemented with a human readable alias if required. This is in line with the statement in the executive summary that "The UPI system will assign a code to each OTC derivative product which maps to a set of data elements describing the product in a corresponding reference database"

***Question 8:* Do you agree that a well-articulated UPI reference data library could support interoperability between dummy UPI codes and intelligent UPI codes? Why or why not? What steps could be taken with the UPI reference data to facilitate supporting both types of UPI code?**

See response to Q7.

***Question 9:* What are the minimum and maximum lengths (in terms of number of characters) that you believe the industry could accommodate for a UPI code system? How does this vary between dummy and intelligent codes? What do you believe is the optimal number of characters, and why?**

We believe an ideal length for non-intelligent code is 12 characters.

The maximum length for an intelligent code system should be longer. An intelligent code system should avoid the need for codes or abbreviations that would require an interim translation to understand the code value.

***Question 10:* For intelligent codes, how should the information be encoded? Are there existing models for this? How much adaptation would existing models require in order to meet the needs described in this consultation?**

The examples in question 1 show a possible way to encode the information in an intelligent way by concatenating the different values. This method is currently used for the representation of the UPI in various reporting regimes, where the concatenated values of the ISDA taxonomy are used, with ":" between them.

Adding the underlier requires agreement on a standardized representation of the underliers and agreement on which underlier to use in specific cases. We believe the FpML reference data set[6] is an excellent starting point for the identification of underliers. Examples are the "FloatingRateIndexScheme" and the "CommodityReferencePriceScheme"

[6] http://www.fpml.org/reference-data/

<u>Question 11:</u> Do you believe that UPI codes should have an inherent means of validation? For example, should UPI codes include a check digit? Why or why not? Does this vary between dummy and intelligent codes and/or depend on the encoding method used in an intelligent code?

Yes, we believe that the UPI code should have inherent means of validation. In the case of a dummy identifier this can be achieved by using a check digit and by requiring a fixed length. The use of a check digit allows to track errors whenever a code is copied. There is no validation however on the underlying metadata, which should happen at the point of issuance.

A check digit and fixed length are useful ways to improve data quality, particular when there is a non-electronic step in the process workflow.

In the case of an intelligent code that leverages a product taxonomy such as the ISDA taxonomy, validation against the taxonomy value can be enforced.

In addition validation can be done in both cases on the characters allowed.

<u>Question 12:</u> Another means of having a simple, partial validation for a UPI code would be for all UPI codes to be of uniform length: thus, any code that was not of the required length could be recognised as prima facie invalid. Do you believe that all UPI codes should be of uniform length? Why or why not? Or are optimal UPI codes of one asset class likely to be longer or shorter than optimal UPI codes for other asset classes? If so, do you believe that extra dummy characters should be inserted into the shorter codes to make them of the uniform length? Why or why not?

For non-intelligent identifiers we agree with requiring a uniform length as it adds a level of validation to the process.

Intelligent identifiers should not be limited to a fixed length. Instead, we believe a more meaningful validation is a validation against the values in the underlying taxonomy.

<u>Question 13:</u> For an intelligent UPI code, how should underlying the asset(s) or reference entity (entities) be represented within the UPI code? Would it be preferable for the part of the UPI code that represents the underlying asset(s) or reference entity (entities) to be dummy while the rest of the code is intelligent? Why or why not?

In the case an intelligent code is used to describe the instrument type portion, this can be combined with a non-intelligent (e.g. LEI) or intelligent (e.g. index name) second part of the code that describes the underlier.

***Question 14:* Should the UPI code system avoid using Roman letters? Why or why not? Are there particular jurisdictions whose computer systems cannot accommodate Roman letters?**

No response.

***Question 15:* Would it be preferable for the UPI code system to use only Roman letters, only Indo-Arabic numerals, or a combination of the two? Why? If Roman letters are included in the UPI code system, should they avoid being case-sensitive? If the UPI code system uses both Roman letters and Indo-Arabic numerals, should the system not disallow particular characters that could be mistaken for each other (the lower-case letter "l" and the number "1", the digit "0" and the upper-case letter "O" etc).**

Certain letters should not be used in the code system to prevent misreading and avoid unintended profanity.

4 Closing

The International Swaps and Derivatives Association, Inc. and its members recognize the importance of the efforts of the Harmonisation Group towards global data harmonization, and strongly support the initiatives of CPMI and IOSCO to promote global standards for OTC derivatives reporting. We feel strongly that the recommendations issued as a result of this and any associated Consultative Reports on the UPI (and as further adopted by global regulators) should reflect current market practice and existing industry standards and in particular support and leverage the common framework being developed for OTC derivatives product identifiers.

Further, we encourage a focus on providing recommendations for the consistent treatment of data requirements common to existing final and proposed reporting regulations. Reporting requirements should be refined and improved as a result of the CPMI-IOSCO recommendations, rather than being redeveloped via the inclusion of new data fields and new terminology that are not relevant to the OTC derivatives market.

We would like to reiterate our appreciation for the opportunity provided by CPMI and IOSCO to respond to the Second Consultative Report with our feedback and proposals. We are happy to discuss our responses and to provide any additional information that may assist with your consideration of these important issues to market participants.

Sincerely,

Karel Engelen
Senior Director, Co-Head Data, Reporting and FpML
International Swaps and Derivatives Association, Inc.

5 Appendices

5.1 Proposed UPI data element values versus coarsest ISIN level (Level 1)

In each table below, we compare the suggested UPI reference data elements specified in the Second Consultative Report with the coarsest ISIN level (Level1). The first two columns contain the UPI data elements and example values. The third column indicates whether the information is present in the coarsest level of ISIN. The final two columns indicate the corresponding ISIN data elements and example values for the ISIN metadata.

5.1.1. Rates

Rates – Swap (Plain Vanilla)

UPI2 reference data element value?	UPI2 Example	Is there a proposed ISIN Level 1 equivalent?	Level 1 - Attribute	Level 1 -Example
Asset Class	Rates	Y	Asset Class	Interest Rate
Instrument Type	Swap	Y	Base product	IR Swap
Notional Schedule	Constant, Accreting, Amortising, Custom etc.	N/A	N/A	N/A
Single or multiple currency	Single Currency, Cross Currency	Y	Notional currency	EUR
Delivery Type	Cash, Physical etc.			
Underlying asset/contract type	Basis swap, Fixed – Floating, Fixed – Fixed, Inflation, OIS, Zero Coupon, Other etc	Y	Sub-product and Transaction Type.	Fixed Float and Plain Vanilla
Underlier ID source	Definition -The origin, or publisher, of the associated underlier ID	Possible	May possibly be derived	CHF-LIBOR-BBA
Underlier ID	Definition - An identifier that can be used to determine the asset(s) or index	Y	Floating rate index	EUR-LIBOR-BBA
Underlying rate index tenor period	Day, week, month, year, term etc	Y	Index Tenor	6m
Underlying rate index tenor multiplier	eg 1, 2, 3, 4, …	Y	Price multiplier	1
N/A	N/A	Y	Product name	Fixed-Float IRS
N/A	N/A	Y	Product_ISIN	EZ#########1
N/A	N/A	Y	Ultimate_Parent_ISIN	EZ#########1
N/A	N/A	Y	Immediate_Parent_ISIN	EZ#########1
N/A	N/A	Y	Tier_Level_ISIN	EZ-1
N/A	N/A	Y	Issue_Description	SWAP_EQTY_Notional
N/A	N/A	Y	Issuer_Long_Name	N/A
N/A	N/A	Y	Financial instrument short name	MEFF/F 20161216 IBEX
N/A	N/A	Y	CFI Code	SRCXXX
N/A	N/A	Y	MiFIR identifier	DERV
N/A	N/A	Y	Asset class of the underlying	INTR
N/A	N/A	Y	Contract type	SWAP
N/A	N/A	Y	Underlying type	INRT
N/A	N/A	Y	Commodities derivatives indicator	FALSE
N/A	N/A	Y	Sub-asset class	Fixed-to-Float 'single currency swaps'
N/A	N/A	Y	Floating Leg: Payment frequency	6M
N/A	N/A	Y	Floating Leg: Day count fraction	ACT/360
N/A	N/A	Y	Fixed Leg: Payment frequency	1Y
N/A	N/A	Y	Fixed Leg: Day count fraction	30E/360

Rates – Option (Swaption)

UPI2 reference data element value?	UPI2 Example	Is there a proposed ISIN Level 1 equivalent?	Level 1 - Attribute	Example
Asset Class	Rates	Y	Asset class	Interest Rate
Instrument Type	Option	Y	Base product	Option
Option style	European, American, Bermudan, etc	Y	Exercise type	European
Option type	Put, Call, Chooser etc	Y	Option Type	PUTO
Return, pricing method or payout trigger	Vanilla,Asian, Digital (Binary), Barrier, Digital Barrier, Lookback, Other Path Dependent, Other, Cap, Floor, etc	*Partial*	Option Type	PUTO - Floor; CALL -Cap.
Delivery type	Physical	Y	Cash vs. physical settlement	PHYS
Underlying asset/contract type	Interest Rate Index, Swaps – Basis swap, Swaps –Fixed/ Floating, Swaps –Fixed/Fixed, Swaps – Inflation, Swaps – (OIS), Options, Forwards, Futures, Other etc	Y	Sub-asset class *and/or* Sub-Product	Bond options *and/or* Debt Options
Underlier ID source	Definition -The origin, or publisher, of the associated underlier ID	Possible	May possibly be derived	ISO (ISIN)
Underlier ID	Definition - An identifier that can be used to determine the asset(s) or index	Y	ISIN code of the underlying swap	ZZ000DZ21632
Underlying rate index tenor period	Day, week, month, year, term etc	N/A	N/A	N/A
Underlying rate index tenor multiplier	eg 1, 2, 3, 4, …	Y	Price multiplier	1
N/A	N/A	Y	Product name	Swaption
N/A	N/A	Y	Product_ISIN	EZ#########1
N/A	N/A	Y	Ultimate_Parent_ISIN	EZ#########1
N/A	N/A	Y	Immediate_Parent_ISIN	EZ#########1
N/A	N/A	Y	Tier_Level_ISIN	EZ-1
N/A	N/A	Y	Issue_Description	SWAP_EQTY_Notional
N/A	N/A	Y	Issuer_Long_Name	N/A
N/A	N/A	Y	Financial instrument short name	MEFF/F 20161216 IBEX
N/A	N/A	Y	CFI Code	SRCXXX
N/A	N/A	Y	MiFIR identifier	DERV
N/A	N/A	Y	Asset class of the underlying	INTR
N/A	N/A	Y	Contract type	SWPT
N/A	N/A	Y	Underlying type	XFSC
N/A	N/A	Y	Commodities derivatives indicator	FALSE
N/A	N/A	Y	Transaction type	<empty>
		Metadata points from which the ISIN code is inferred		
N/A	N/A	Y	Notional currency	EUR

Rates – Forward (Forward Rate Agreement)

UPI2 reference data element value?	UPI2 Example	Is there a proposed ISIN Level 1 equivalent?	Level 1 - Attribute	Level 1 -Example
Asset Class	Rates	Y	Asset Class	Interest Rate
Instrument Type	Forward	Y	Base product *and/or* Sub-asset class	FRA *and/or* IR futures and FRA
Return, pricing method or payout trigger	Spreadbet, Forward price of underlying instrument, Forward rate of underlying X notional, Contract For Difference etc			
Single of multiple tenor	Single, multiple etc	N/A	N/A	N/A
Delivery Type	Cash, Physical etc.	N/A	N/A	N/A
Underlying asset/contract type	Interest Rate Index, Options, Other, Single Name, Basket etc	Y	Sub-product *and/or* Transaction type	no example
Underlier ID source	Definition -The origin, or publisher, of the associated underlier ID	Possible	May possibly be derived	CHF-LIBOR-BBA
Underlier ID	Definition - An identifier that can be used to determine the asset(s) or index	Y	Floating rate index	CHF-LIBOR-BBA
Underlying rate index tenor period	Day, week, month, year, term etc	Y	Index tenor	6M
Underlying rate index tenor multiplier	eg 1, 2, 3, 4, …	Y	Price multiplier	1
N/A	N/A	Y	Product name	FRA
N/A	N/A	Y	Product_ISIN	EZ#########1
N/A	N/A	Y	Ultimate_Parent_ISIN	EZ#########1
N/A	N/A	Y	Immediate_Parent_ISIN	EZ#########1
N/A	N/A	Y	Tier_Level_ISIN	EZ-1
N/A	N/A	Y	Issue_Description	SWAP_EQTY_Notional
N/A	N/A	Y	Issuer_Long_Name	N/A
N/A	N/A	Y	Financial instrument short name	MEFF/F 20161216 IBEX
N/A	N/A	Y	CFI Code	SRCXXX
N/A	N/A	Y	MiFIR identifier	DERV
N/A	N/A	Y	Asset class of the underlying	INTR
N/A	N/A	Y	Contract type	OTHR
N/A	N/A	Y	Underlying type	INRT
N/A	N/A	Y	Commodities derivatives indicator	FALSE
N/A	N/A	Y	Day count fraction	ACT/360
N/A	N/A	Y	Notional currency	CHF

5.1.2 Equities

Equity – Swap (Single Name)

UPI2 reference data element value?	UPI2 Example	Coarsest ISIN Level (Level 1)	Level 1 - Attribute	Level 1 -Example
Asset Class	Equities	Y	Asset Class	Equity
Instrument Type	Swap	Y	Base Product; Contract type; Sub-asset class;	Swap
Return, pricing method or payout trigger	Price, Dividend, Total Return, Variance, Volatility, Contract for Difference (CFD) etc	Y	Base Product *and/or* Sub-Product	CFD *and/or* Price Return Basic Performance
Delivery Type	Cash, Physical etc.	Y	Delivery Type	PHYS, CASH, OPTL
Underlying asset/contract type	Single name, Index, Basket etc	Y	Transaction Type	Single Name
Underlier ID source	Definition -The origin, or publisher, of the associated underlier ID	Possible	May possibly be derived	
Underlier ID	Definition - An identifier that can be used to determine the asset(s) or index	Y	Underlier - Identifier	no example
N/A	N/A	Y	Product name	Single Name Price Return Swap
N/A	N/A	Y	Product_ISIN	EZ#########1
N/A	N/A	Y	Ultimate_Parent_ISIN	EZ#########1
N/A	N/A	Y	Immediate_Parent_ISIN	EZ#########1
N/A	N/A	Y	Tier_Level_ISIN	EZ-1
N/A	N/A	Y	Issue_Description	SWAP_EQTY_Notional
N/A	N/A	Y	Issuer_Long_Name	N/A
N/A	N/A	Y	Financial instrument short name	MEFF/F 20161216 IBEX
N/A	N/A	Y	CFI Code	SRCXXX
N/A	N/A	Y	MiFIR identifier	DERV
N/A	N/A	Y	Asset class of the underlying	EQUI
N/A	N/A	Y	Underlying type	SHAR
N/A	N/A	Y	Commodities derivatives indicator	FALSE
N/A	N/A	Y	Parameter	PRBP
			Equity Leg	
N/A	N/A	Y	Underlying issuer	
N/A	N/A	Y	Price multiplier	1
N/A	N/A	Y	Return type	Price / Total / Dividend
N/A	N/A	Y	Underlying Asset Initial Price Election	
			Interest Leg	
N/A	N/A	Y	Notional currency 1	USD
N/A	N/A	Y	Notional currency 2	EUR
N/A	N/A	Y	Dividend currency	
N/A	N/A	Y	Currency of Underlying Instrument	
N/A	N/A	Y	Price Notation	

Equity – Option (Single Name)

UPI2 reference data element value?	UPI2 Example	Coarsest ISIN Level (Level 1)	Level 1 - Attribute	Example
Asset Class	Equities	Y	Asset Class	Equity
Instrument Type	Option	Y	Base Product	Option
Option style	European, American, Bermudan, etc	Y	EquityExercise	no example
Option type	Put, Call, Chooser etc	Y	Option Type	Put
Return, pricing method or payout trigger	Vanilla, Asian, Digital (Binary), Barrier, Digital Barrier, Lookback, Other Path Dependent, Other etc	Y	Sub-Product	Price Return Basic Performance
Delivery Type	Cash, Physical, Elect at Settlement etc	Y	Settlement Type	Cash / Physical
Underlying asset/contract type	Single name, Index, Basket, Options, Forwards, Futures etc	Y	Transaction Type	Single Name
Underlier ID source	Definition -The origin, or publisher, of the associated underlier ID	Possible	May possibly be derived	
Underlier ID	Definition - An identifier that can be used to determine the asset(s) or index	Y	Underlier - Identifier	
N/A	N/A	Y	Product name	Single Name Price Return Swap
N/A	N/A	Y	Product_ISIN	EZ#########1
N/A	N/A	Y	Ultimate_Parent_ISIN	EZ#########1
N/A	N/A	Y	Immediate_Parent_ISIN	EZ#########1
N/A	N/A	Y	Tier_Level_ISIN	EZ-1
N/A	N/A	Y	Issue_Description	SWAP_EQTY_Notional
N/A	N/A	Y	Issuer_Long_Name	N/A
N/A	N/A	Y	Financial instrument short name	MEFF/F 20161216 IBEX
N/A	N/A	Y	CFI Code	SRCXXX
N/A	N/A	Y	MiFIR identifier	DERV
N/A	N/A	Y	Asset class of the underlying	EQUI
N/A	N/A	Y	Contract type	OPTN
N/A	N/A	Y	Underlying type	SHAR
N/A	N/A	Y	Commodities derivatives indicator	FALSE
N/A	N/A	Y	Sub-asset class	Stock Options
N/A	N/A	Y	Parameter	NA
			Option Leg	
N/A	N/A	Y	Underlying issuer	
N/A	N/A	Y	Price multiplier	
N/A	N/A	Y	Notional currency 1	USD
N/A	N/A	Y	Notional currency 2	EUR
N/A	N/A	Y	Dividend currency	
N/A	N/A	Y	Currency of Underlying Instrument	
N/A	N/A	Y	SettlementCurrency	
N/A	N/A	Y	Strike Price Currency	
N/A	N/A	Y	Option Currency	
N/A	N/A	Y	Delivery Type *(for options covered by Settlement Type)*	PHYS, CASH, OPTL
N/A	N/A	Y	Price Notation	

5.1.3 Foreign Exchange

FX – Forward

UPI2 reference data element value?	UPI2 Example	Coarsest ISIN Level (Level 1)	Level 1 - Attribute	Level 1 -Example
Asset Class	FX	Y	Asset Class	Foreign Exchange
Instrument Type	Forward	Y	Base Product	Forward
Return, pricing method or payout trigger	CFD, Spreadbet, Forward Price of underlying instrument etc	Y	Contract Type	SPDB - Spread betting
Delivery Type	Cash, Physical, Elect at Settlement etc.	Y	Contract sub-type	DLVB (Deliverable - further defined in Table 8.1, Section 8, Annex III, "Reg technical & implementing standards, MiFID2/MiFIR; 28 Sept 2015/ESMA/2015/1464"); PHYS (Physical)
Underlying asset/contract type	Spot, Forward, Options, Futures etc.	Y	Sub-asset class	DF/NDF, DO/NDO, FX futures
Currency Pair	eg ISO 4217 currency code	Y	Currency 1 and Currency 2	EUR and JPY
Settlement Currency	eg ISO 4217 currency code	N/A	N/A	N/A
N/A	N/A	Y	Product_ISIN	EZ#########1
N/A	N/A	Y	Ultimate_Parent_ISIN	EZ#########1
N/A	N/A	Y	Immediate_Parent_ISIN	EZ#########1
N/A	N/A	Y	Tier_Level_ISIN	EZ-1
N/A	N/A	Y	Issue_Description	SWAP_EQTY_Notional
N/A	N/A	Y	Issuer_Long_Name	N/A
N/A	N/A	Y	Financial instrument short name	MEFF/F 20161216 IBEX
N/A	N/A	Y	CFI Code	SRCXXX
N/A	N/A	Y	MiFIR identifier	DERV
N/A	N/A	Y	Asset class of the underlying	CURR
N/A	N/A	Y	Commodities derivatives indicator	FALSE
N/A	N/A	Y	FX Type	FXMJ

FX – Option (Vanilla)

UPI2 reference data element value?	UPI2 Example	Coarsest ISIN Level (Level 1)	Level 1 - Attribute	Example
Asset Class	FX	Y	Asset class	Foreign Exchange
Instrument Type	Option	Y	Base Product	Vanilla Option
Option style	American, European, Bermudan etc	Y	Option exercise style	AMER/EURO/ASIA/BERM
Option type	Put, Call, Chooser etc	Y	Put Currency *OR* Call Currency	EUR *or* USD
Return, pricing method or payout trigger	Vanilla, Asian, Digital (Binary), Barrier, Digital Barrier, Lookback, Other Path Dependent, Other etc	Y	Option exercise style (Asian) *or* ?	Asian, Bermudan *or*?
Delivery type	Cash, Physical, Elect at Settlement etc	Y	Delivery type	PHYS
Underlying asset/contract type	Forwards, Futures, Spot, Volatility etc	Y	Sub-asset class	DF/NDF, DO/NDO, FX futures,
Currency Pair	eg ISO 4217 currency code	Y	Put Currency *OR* Call Currency	EUR *or* USD
Settlement Currency	eg ISO 4217 currency code	N/A	N/A	N/A
N/A	N/A	Y	Product_ISIN	EZ##########1
N/A	N/A	Y	Ultimate_Parent_ISIN	EZ##########1
N/A	N/A	Y	Immediate_Parent_ISIN	EZ##########1
N/A	N/A	Y	Tier_Level_ISIN	EZ-1
N/A	N/A	Y	Issue_Description	SWAP_EQTY_Notional
N/A	N/A	Y	Issuer_Long_Name	N/A
N/A	N/A	Y	Financial instrument short name	MEFF/F 20161216 IBEX
N/A	N/A	Y	CFI Code	SRCXXX
N/A	N/A	Y	MiFIR identifier	DERV
N/A	N/A	Y	Asset class of the underlying	CURR
N/A	N/A	Y	Contract type	OPTN
N/A	N/A	Y		
N/A	N/A	Y	CONTRACT SUB TYPE	DLVB
N/A	N/A	Y	Commodities derivatives indicator	FALSE
N/A	N/A	Y	FX Type	FXCR - FX Cross Rates. FXEM - FX EM. FXMJ - FX Majors. Foreign exchange derivatives - The fields in this section should only be populated for instruments that have non-financial instrument of type foreign exchange as underlying.