TAC SUB-COMMITTEE ON DATA STANDARDIZATION

UPI and LEI Working Group

Unique Product Identifier (UPI) Approach and Implementation

December 13th, 2011

In response to the CFTC proposed rules that require unique product identifiers (UPIs) to increase transparency in the OTC markets

- ISDA and an *inclusive* group of industry representatives have developed a proposal and underlying approach to implementing UPIs in the marketplace.
  - Participants include: dealers, buy-side, CCPs, affirmation platforms, potential SEFs and SDRs and other market facilities.

- The proposal is being vetted with each of the ISDA product steering committees to ensure the overall approach is fully understood and supported by the industry, including:
  - Ensuring no impediments to product innovation or trading.
  - The costs are well understood.
  - The resulting UPI level of granularity meets regulatory needs without causing market disruptions.
  - The creation of a full product representation (as opposed to a ticker-only representation of the product).

- The vetting process over the next couple of months is expected to reach a point of industry consensus and approval driven via the ISDA framework.

UPI requirements derived from the proposed CFTC rules and ongoing discussions with Regulators
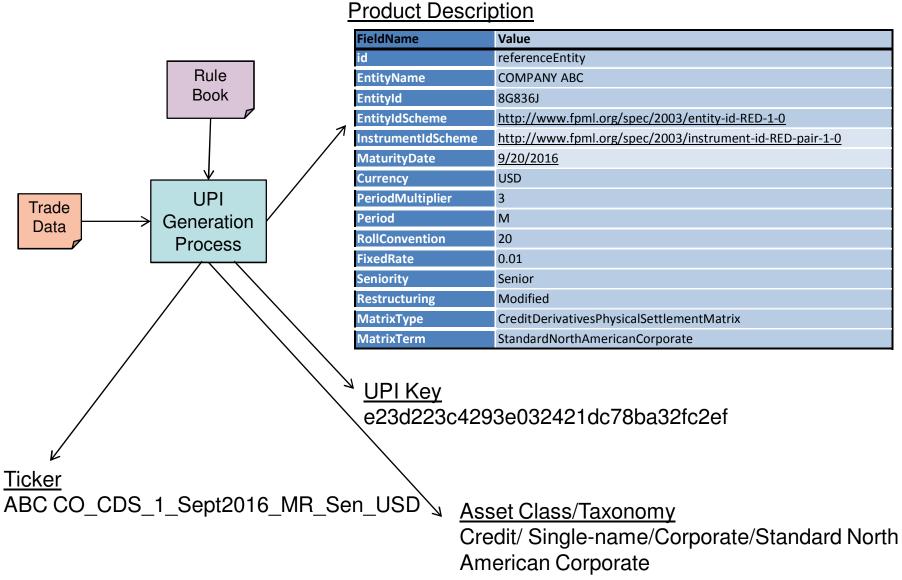
- Price transparency and discovery.
    - Cannot be achieved without identifying products that make sense for price comparison.
    - Requires both human recognizable and computer readable identifiers.

- Aggregation for systemic risk analysis.

- R/T reporting for public dissemination to tape and PET reporting to the SDR will require a Unique product ID

- The proposed solution should be extendable beyond vanilla products

- All products will eventually need a UPI (with the exception of exotics)
    - UPIs are best suited for Liquid products and least suited for Exotic products
    - Exotic products can be represented with the asset class taxonomy and a generic UPI (i.e. 999999)

The UPI approach leverages existing industry global standards, is extendible to all asset classes and can be made freely available to all market participants

- It is expected that a **full product representation** will be needed, including:
  - Asset Class and Taxonomy- relate to the ISDA OTC Taxonomy.
  - Product description- a human readable description of the product.
  - Ticker- For some but not all products where appropriate. Used for price dissemination (tape) and quoting (SEFs) for human understanding. Should be assumed that different ECNs will have different tickers for same tradable OTC product.
  - UPI Key- computer-friendly, singular, opaque, immutable, fixed length, always unique key.

- The biggest hurdle in 'defining' products is determining the attributes that make up the product and then normalizing that data for purposes of grouping the product or assigning an identifier.
  - Product definitions from existing electronic trading venues and the work being done now to define the PET terms may help speed this process up for the very liquid products.

- The Industry approach driven by ISDA :
  - Develop a rulebook which serves as the brains of creating the UPI. This rulebook is governed by ISDA.
  - Convert a standard trade representation (FpML) into a product info-set by determining the price forming attributes.
  - Normalize the data by ensuring consistency in the values and sorting etc. in the product info-set.
  - Generate the UPI key by inputting the product info-set into a hashing algorithm.
  - The resulting output would effectively yield a human readable product description, though the creation of tickers can be used for some standardized and liquid parts of the market.
  - The generation of the ticker is an additional step after you generate the product description and UPI Key.

Generating UPI and full product representation: Example: Credit Default Swap- (For Illustration Purposes Only)

Product Description

FieldName	Value
id	referenceEntity
EntityName	COMPANY ABC
EntityId	8G836J
EntityIdScheme	http://www.fpml.org/spec/2003/entity-id-RED-1-0
InstrumentIdScheme	http://www.fpml.org/spec/2003/instrument-id-RED-pair-1-0
MaturityDate	9/20/2016
Currency	USD
PeriodMultiplier	3
Period	M
RollConvention	20
FixedRate	0.01
Seniority	Senior
Restructuring	Modified
MatrixType	CreditDerivativesPhysicalSettlementMatrix
MatrixTerm	StandardNorthAmericanCorporate

Rule Book

Trade Data

UPI Generation Process

UPI Key
e23d223c4293e032421dc78ba32fc2ef

Ticker
ABC CO_CDS_1_Sept2016_MR_Sen_USD

Asset Class/Taxonomy
Credit/ Single-name/Corporate/Standard North American Corporate

5

TAC Recommendations

- TAC members of the Sub-Committee on Data Standardization, UPI and LEI working group support the ISDA UPI proposal and underlying approach.

    - While a ticker is a useful component of the product representation TAC members believe the hashed UPI code will also be necessary to maintain the IT advantage of computing readability.

    - The TAC has recommended to the UPI Technology and Data Sub-committee, which is reviewing the technical aspects of UPI, to comeback with a full recommendation on this matter.

- TAC believes significant work and progress has been made in defining the UPI framework and would highlight the large change this will create for the industry.

- It is expected that UPIs for the most liquid, standardized parts of the market will become available for integration within the overall industry regulatory reporting framework by Q3/Q4 2012.

    - The TAC fully supports the implementation of UPIs into the overall industry regulatory reporting framework.

Immediate next steps

- Produce the next version of the UPI generation specifications.
    - Details how to convert a standard trade representation into a product representation.

- Each asset class will deliver a product a 'rulebook' which will define the price forming attributes which make up the product info-set.
    - The initial focus will be on the most standardized and liquid parts of the market, all products will eventually need a UPI, though no UPI scheme can cover truly exotic trades.

- As products are defined in the rulebooks the industry can begin inter-operability testing to ensure participants generate the same product representation based of the same trade.

- A whitepaper on UPI Generation and Dissemination is being produced that will detail options for where UPIs will be generated and the resulting workflows as well as options for how UPIs could be disseminated (translate a UPI key to a product representation).

Challenges to implementation and timeline

- The biggest challenge to implementing this approach to delivering UPIs to the industry is the ability to incorporate into the industry's broader efforts to comply with the Dodd-Frank reporting mandates.

- Considerable efforts are underway for the industry to develop the reporting as required by the rulemaking.

- There is a phased and interlocked approach for each of the asset classes. The UPI implementation will need to be integrated and tested as a part of this wider industry implementation.

- It is expected that UPIs could be available for integration with the overall industry implementation framework in Q3/Q4 2012.
    - The initial focus would be on the highly liquid and standardized products.

Appendices

Why not a ticker-only approach?

Issues with ticker approach only

- Need to identify, maintain and distribute the attributes that differentiate products- viewed as costly to implement and maintain.

- Will also require additional rulebook creation work (UPI can be created with little structure to the rules, tickers depend on specific sets of attributes being matched) and may require reference data lookups for suitable abbreviations.

- Costly for participants to store this data in their security masters globally.

- Potential IP considerations- i.e. cost and licensing for use of RED IDs.

- Potential for tickers to change over time leading to additional cost for market participants.

- Regulators have indicated that UPIs need to cover a full range of products (except exotics), tickers would need to account for every variation of products.

Current UPI Approach does not preclude the creation of tickers

- Tickers could be created as part of the current proposal in addition to the asset class/taxonomy, product description and UPI key.

- Only needed for standardized, liquid markets where it makes sense.

- Ticker generation could be done via a computer generated transformation of the product infosets or potentially by 3rd parties who typically provide this type of service.