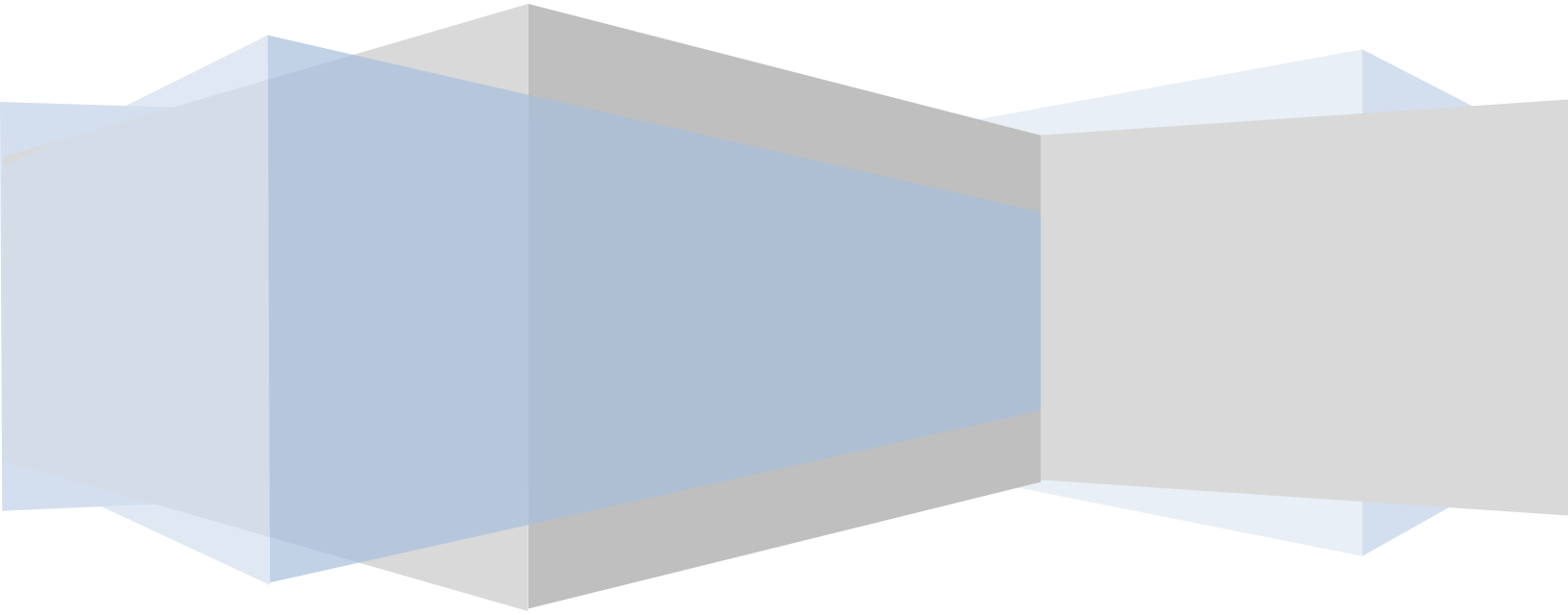
NFA Response to CPMI-IOSCO Consultative Report

Harmonisation of the Unique Product Identifier



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Introduction

This document captures the National Futures Association's response to the Consultative Report published by The Committee on Payments and Market Infrastructures (CPMI) and the International Organization of Securities Commissions (IOSCO).

National Futures Association ("NFA") is a self regulatory organization ("SRO") for the US derivatives markets. In its capacity as an SRO, NFA provides regulatory oversight of a variety of OTC derivatives market participants (i.e. swap dealers, swap introducing brokers, pooled investment vehicles and investment managers using swaps). NFA is a non-profit, independent regulatory organization. NFA does not operate any markets and is not a trade association. The development of a harmonized standard for OTC derivatives data will greatly contribute to the effectiveness and efficiency of its regulatory programs.

In addition to its responsibilities as an SRO, NFA provides a variety of regulatory services and programs to electronic trading platforms (swap executions facilities ("SEF") and designated contract markets ("DCM")) to ensure the fair treatment of customers and to maintain orderly markets. In this capacity, NFA provides frontline trade practice and market surveillance to US SEFs and DCMs contracted with NFA pursuant to a regulatory services agreement ("RSA"). These SEFs and DCMs send on a daily basis all pre-trade, trade, product, and market participant information. This data is sent to NFA in a proprietary data format defined and maintained by NFA. In developing and maintaining this data format, NFA leveraged existing and emerging industry standards. However, absent a globally accepted standard for the representation of OTC derivatives data, NFA had to solve several of the challenges that the CPMI-IOSCO Harmonization Group is currently contemplating.

NFA is committed to finding efficient solutions to regulatory challenges. As such, NFA seeks to incorporate any globally accepted standard for OTC derivatives data representations into its current and future systems. The goal is to continually improve the interoperability of its systems and to ensure efficient solutions for industry's regulatory reporting of transactions. It is with this experience and background that NFA is responding to the Consultative Report.

NFA has included several appendices in addition to this write-up. See below for a description of each appendix:

\---NFA_Responses_Harmonisation_Unique_Product_Identifier.zip

|	NFA_Responses_Harmonisation_Unique_Product_Identifier.docx	Responses to Questions
|		
\---Appendix		
	Appendix_A_Product_Representation_for_Standardized_Derivatives_20110414vfinal.pdf	Guide on Product Level Granularity
	Appendix_B_2015 Mar 25 ISDA Taxonomy v2 0 EQ CR FX IR_Comment period_v4.xls	Guide on Product Taxonomies
	Appendix_B2_2015 Mar 25 ISDA Taxonomy v2.0 - Commodities_Comment period.xlsx	Guide on Product Taxonomies
	Appendix_C_NFA_SEF_Product_Matrix_v1.4.xlsx	NFA implementation
	Appendix_C1_SEF_DataModelDetail_2.3.0.0_Product_TI.pdf	NFA implementation

Harmonisation of the Unique Product Identifier

Question 1

Are the above three OTC derivative instrument types sufficient to describe (in combination) all OTC derivatives? Which OTC derivatives would fall outside this approach?

Yes.

Question 2

Is it valid to assume that a combination of data elements of the instrument with data elements of the underlier is sufficient to define a product? If not, please explain.

Yes. Some consideration should be given to whether the addition of "Contract" level attributes to the product would provide meaningful groupings.

Question 3

Is it valid to assume that the combination/set of data elements in the UPI classification system may differ across asset classes? If not, please explain and state how a uniform set of data elements could be comprehensively applied across asset classes.

Yes.

Question 4

Do you agree with this approach to the UPI's treatment of package trades? If not, please explain and suggest alternatives.

Yes. Relating to the legs of a package transaction is not the responsibility of the UPI.

However, some consideration should be given to the creation of an additional identifier that standardizes packages. NFA's systems use a "StratCode" attribute that defines the general terms of package transaction and "ExecGroupId" to identify instances of Package Transaction by relating the legs of individual transaction. To properly provide oversight of package transactions regulators need explicit attributes that:

1. **Isolate individual legs of package transactions**
2. **Relate legs of package transactions**
3. **Identify the primary economic terms of the underlying transactions**
4. **Identify package types to compare pricing of similar packages**

NFA systems handle package transactions according to the following methodology:

- **Product is split into two identifiers**
    - **"UniqueProdId" - Unique Product Id**
        - **Product level terms and groupings**

        - Used to describe general terms of a product
        - Ex. USD Semi Bond vs. 3M Libor
    - "TradeInstrId" -Tradeable Instrument Id
        - Used to describe more specific terms of a product
        - Tradeable Instruments have a many-to-one relationship with Products
        - For more liquid standardized swaps Tradeable Instruments represent the various tenors of a the Products described in "Unique Product Id"

UniqueProdId	TradeInstrId	Description
USD_SB_vs_3M	2Y_USD_SB_vs_3M	2 year tradeable instrument tenor of USD Semi Bond vs. 3M Libor Product
USD_SB_vs_3M	5Y_USD_SB_vs_3M	5 year tradeable instrument tenor of USD Semi Bond vs. 3M Libor Product
USD_SB_vs_3M	10Y_USD_SB_vs_3M	10 year tradeable instrument tenor of USD Semi Bond vs. 3M Libor Product

- Package Types are given a unique "StratCode"
    - A table is used to represent the relationship between aggregate packages and underlying instrument legs:

StratCode	TradeInstrId	Description
USD.SB.SWAP BFLY 2x5x10	2Y_USD_SB_vs_3M	2x5x10 USD Semi Bond vs. 3M Libor Butterfly (2 year leg)
USD.SB.SWAP BFLY 2x5x10	5Y_USD_SB_vs_3M	2x5x10 USD Semi Bond vs. 3M Libor Butterfly (5 year leg)
USD.SB.SWAP BFLY 2x5x10	10Y_USD_SB_vs_3M	2x5x10 USD Semi Bond vs. 3M Libor Butterfly (10 year leg)

- Each leg of deal executed as part of a package contains the following identifiers:
    - UTI -> unique deal record for each leg of package
    - ExecGroupID -> unique record relating all executed legs of a package
    - TradeInstrId -> foreign key to tradeable instrument table describing specific terms of an instrument (all but quantity and price and counterparty information which are deal specific)
    - UniqueProdId -> foreign key to product table describing groupings of similar products and some general terms of the product
    - StratCode -> foreign key to package table detailing information about the package type

MESSAGES TABLE

BatchDate	SefId	Asset Class	SeqId	MsgId	SessionId	Session Type	BaseProd	SubProd	MsgDate	MsgTransType	TradInstrId	StratCode	Side	Qty	QtyRemain	Price	Trader (R=12)	NOTES
2015-04-10	SEF1	IR	100	A1	A	CLOB	S	FF	2015-04-10 12:00:15	ADD	2Y_USD_SB_vs_3M		B	2,000,000,000	2,000,000,000	0.80	Trader_A	Synthetic butterfly spread created in 2x5x10 order book at -.05
2015-04-10	SEF1	IR	101	B1	B	CLOB	S	FF	2015-04-10 12:00:15	ADD	5Y_USD_SB_vs_3M		O	1,000,000,000	1,000,000,000	1.40	Trader_B	Synthetic butterfly spread created in 2x5x10 order book at -.05
2015-04-10	SEF1	IR	102	C1	C	CLOB	S	FF	2015-04-10 12:00:20	ADD	10Y_USD_SB_vs_3M		B	500,000,000	500,000,000	2.05	Trader_C	Synthetic butterfly spread created in 2x5x10 order book at -.05
2015-04-10	SEF1	IR	103	D1	D	CLOB	S	FF	2015-04-10 12:00:30	ADD		USD.SB.SWAP BFLY 2x5x10	B	1,000,000,000	1,000,000,000	-0.05	Trader_D	Butterfly spread lifts synthetic offer
2015-04-10	SEF1	IR	104	A1	A	CLOB	S	FF	2015-04-10 12:00:30	MATCH	2Y_USD_SB_vs_3M		B	2,000,000,000	0	0.80	Trader_A	
2015-04-10	SEF1	IR	105	B1	B	CLOB	S	FF	2015-04-10 12:00:30	MATCH	5Y_USD_SB_vs_3M		O	1,000,000,000	0	1.40	Trader_B	
2015-04-10	SEF1	IR	106	C1	C	CLOB	S	FF	2015-04-10 12:00:30	MATCH	10Y_USD_SB_vs_3M		B	500,000,000	0	2.05	Trader_C	
2015-04-10	SEF1	IR	107	D1	D	CLOB	S	FF	2015-04-10 12:00:30	MATCH		USD.SB.SWAP BFLY 2x5x10	B	1,000,000,000	0	-0.05	Trader_D	

DEALS TABLE (as sent to clearing / SDR)

BatchDate	SefId	Asset Class	USI	ExecGroupID	MsgId	BaseProd	SubProd	MatchDate	DealSource	TradInstrId	EffDate	MatDate	Side	Qty	Price	Trader (R=12)
2015-04-10	SEF1	IR	001	1001	A1	S	FF	2015-04-10 12:00:30	EXCH	2Y_USD_SB_vs_3M	2015-04-12	2017-04-12	B	2,000,000,000	0.80	Trader_A
2015-04-10	SEF1	IR	001	1001	D1	S	FF	2015-04-10 12:00:30	EXCH	2Y_USD_SB_vs_3M	2015-04-12	2017-04-12	O	2,000,000,000	0.80	Trader_D
2015-04-10	SEF1	IR	002	1001	D1	S	FF	2015-04-10 12:00:30	EXCH	5Y_USD_SB_vs_3M	2015-04-12	2020-04-12	B	1,000,000,000	1.40	Trader_D
2015-04-10	SEF1	IR	002	1001	B1	S	FF	2015-04-10 12:00:30	EXCH	5Y_USD_SB_vs_3M	2015-04-12	2020-04-12	O	1,000,000,000	1.40	Trader_B
2015-04-10	SEF1	IR	003	1001	C1	S	FF	2015-04-10 12:00:30	EXCH	10Y_USD_SB_vs_3M	2015-04-12	2025-04-12	B	500,000,000	2.05	Trader_C
2015-04-10	SEF1	IR	003	1001	D1	S	FF	2015-04-10 12:00:30	EXCH	10Y_USD_SB_vs_3M	2015-04-12	2025-04-12	O	500,000,000	2.05	Trader_D

STRATEGY TABLE

BatchDate	SefId	Asset Class	StratCode	RefLegInd	TradeInstrId	LeggingInd	NumLegs	Leg	Side
2015-04-10	SEF1	IR	USD.SB.SWAP BFLY 2x5x10	0	2Y_USD_SB_vs_3M	LS	3	2	O
2015-04-10	SEF1	IR	USD.SB.SWAP BFLY 2x5x10	1	5Y_USD_SB_vs_3M	LS	3	1	B
2015-04-10	SEF1	IR	USD.SB.SWAP BFLY 2x5x10	0	10Y_USD_SB_vs_3M	LS	3	3	O

Question 5

Are the principles and high-level specifications listed and described above comprehensive in representing the characteristics of a classification system? If not, are there other principles and high-level specifications that should be considered? Please list and explain.

Yes.

Question 6

Are the principles and high-level specifications listed and described above accurate and precise in their definitions? If not, are there changes you would suggest? Please list and explain.

Yes.

Question 7

Could some of these principles and high-level specifications pose implementation challenges? Which ones and why?

The level of precision is of particular concern. Depending upon where the line is drawn for UPI, various systems will have to be modified. NFA's SEF Surveillance system moves the level of precision to incorporate some 'contract' terms. This allows standardized products to be grouped by an identifier. Individual tenors and options of these standardized products are presented as tradeable instruments. Tradeable Instruments have a many to one relationship with products.

Question 8

Providers of product classification systems are encouraged to provide a detailed response to Section 3 to set out how their prospective UPI solutions meet, or could be revised to meet, each of these principles and high-level business specifications. If the UPI solution does not meet a particular principle or high-level business specification, please describe planned or potential amendments that could satisfy it.

NFA's SEF trade practice and market surveillance system leverages a proprietary product classification system. Aspects of this classification could be incorporated into UPI harmonisation efforts. In developing the product classification system, NFA attempted to incorporate emerging industry standard attributes and enumerations. These standards are attached in the Appendices to this document.

NFA's product classification system has 3 primary building blocks working in concert (see Appendix C for details):

- **Product - Captures product attributes that are relatively static in nature**
- **Tradeable Instrument - Captures product attributes that are relatively dynamic in nature**

- **Strategy - Strategy layout provides information about each of the legs of a multi - legged order. The strategy is reported as a single order and the individual legs of the strategy are defined in this strategy layout.**

The development of this layout was made with an eye towards industry initiatives led by ISDA / FpML. As a part of its ongoing effort to support regulatory mandates, the International Swaps and Derivatives Association ("ISDA") has coordinated key industry representatives in the creation of standardized taxonomies (classifications) for OTC derivatives. Although they are being developed independently, these taxonomies are intended to support the CFTC's efforts to develop standardized "Unique Product Identifiers" for OTC Swaps and their derivative instruments. Standardized product identification is essential for NFA's surveillance program so in an effort to support industry-wide standards, NFA incorporated the IDSA OTC taxonomy framework into its data specification. In this regard, it is important to first note that NFA references each instrument on two levels:

First, the more general and static characteristics of each standardized instrument such as asset class, whether the instrument is a swap or option, and the exact underlying are all captured by entries in the Product Master file.

Second, the more specific and dynamic characteristics that are unique to each iteration of a standardized instrument such as tenor, effective date offset, and strike price (for options) are all captured by entries in the Tradable Instrument file.

Within this two-tier structure, the ISDA taxonomies apply directly to the Product Master file. This two tier structure was inspired by early industry efforts to develop a standard for representing 'Standardized Swaps' (see Appendix A). The actual terms from these taxonomies as they relate to the Product Master are presented in the Product Matrix (provided in Appendix C), an adjunct document which is published separately from NFA's functional specification. Thus, for purposes of reporting products in the Product Master to NFA, SEFs utilize the same standardized terms outlined in the Product Matrix. The terms in the Product Matrix are drawn from other applicable industry standards such as FpML enumerations, ISDA Definitions, Markit Red Codes, and ISO Currency Codes.

Question 9

As discussed in Section 3.5, should a classification system allow one or more of its data elements to take the value “Other” in order to incorporate new and/or highly bespoke products that do not yet have a more precise definition within the classification system? Why or why not? If not, how would the bespoke/non-standard products be treated within the classification system?

Yes. To keep all OTC products within the same classification system. NFA uses "Other" enumerations in systems and it has worked well hitherto.

What should be the criteria and processes for moving one or more data elements from “Other” to a more specific bucket?

One could use transaction frequency as well as market request to determine the necessity.

Should the volume of transactions that can be reported using these “Other” values be capped in order to maintain the precision of the classification system? If so, what would an appropriate cap be?

No – determining an arbitrary cap could have unintended consequences and establishing and monitoring for such caps is operationally difficult. Volume data can be used to gauge their transaction frequency – but this should not be done against a pre-defined threshold. Instead it should be done at the discretion of market participants / regulators.

Question 10

The results from the study presented in Annex 4 suggest that data elements which describe the instrument, together with data elements that describe and identify the underlier, may provide an optimal level of granularity for product classification. For informational purposes, beyond the use of a derivatives product classification system for the global aggregation of data reported to trade repositories, are you aware of product classifications for other purposes where this level of granularity is applicable? For example, what level of granularity is used for aggregating transactions to calculate a position, or to determine various risk exposures to a particular product? What level of granularity is used to aggregate transactions for the purposes of compression or netting operations?

NFA's SEF trade practice and market surveillance system identifies underlier as part of its product classification scheme. In this regard, it is important to first note that NFA references each instrument on two levels:

> **First, the more general and static characteristics of each standardized instrument such as asset class, whether the instrument is a swap or option, and the exact underlying are all captured by entries in the Product Master file.**
>
> **Second, the more specific and dynamic characteristics that are unique to each iteration of a standardized instrument such as tenor, effective date offset, and strike price (for options) are all captured by entries in the Tradable Instrument file.**

Products have a one-to-many relationship with Tradeable Instruments. For example, USD Semi Bond vs. 3M Libor is a Product. Each tenor or swaption referencing this product is a tradeable instrument referencing this product:

UniqueProdId	TradeInstrId	Description

USD_SB_vs_3M	**2Y_USD_SB_vs_3M**	**2 year tradeable instrument tenor of USD Semi Bond vs. 3M Libor Product**
USD_SB_vs_3M	**5Y_USD_SB_vs_3M**	**5 year tradeable instrument tenor of USD Semi Bond vs. 3M Libor Product**
USD_SB_vs_3M	**10Y_USD_SB_vs_3M**	**10 year tradeable instrument tenor of USD Semi Bond vs. 3M Libor Product**

For the purpose of analyzing market participant's activities as well as analyzing / netting / compressing risk NFA looks at transaction on a Tradeable Instrument level, a Product level, and also on a related product level. The level of granularity of NFA's product tables enables NFA to identify related products that are expressed with individual Unique Product Id's. For example, NFA can easily relate swaps referencing 1M USD LIBOR underliers, 3M USD LIBOR underliers, and 6M USD LIBOR underliers.

Question 11

Do the options presented above appear operationally feasible? If not, please explain why.

Yes they do. However, we deal primarily in standardized Swaps. Therefore, we added attributes described in this context as "Contract" level criteria on the Product. Our experience has shown these terms are generally standardized by currency and underlier. While seemingly infinite possibilities for combinations exist, liquidity migrates to standardized contracts.

Question 12

What are the pros and cons that you see in each considered level of granularity (one with an identifier for the underlier, one without an identifier for the underlier)?

Underlier is a critical attribute. UPI without at least this level of granularity will render the identifier worthless from a regulatory and market data perspective. Regulators would need to greatly enrich the data independent of UPI to be able to identify and group related swaps.

Question 13

A classification system that includes identifiers for underliers in all asset classes would require identifiers that are open-source and freely available to all users with open redistribution rights. Looking at the example of classification systems provided in this section and in Annex 5, do such identifiers exist for all asset classes? If not, please specify where you foresee implementation challenges in this regard and any suggested solutions

The various terms to express NFA's product classification system including underliers are in the Product Matrix (provided in Appendix C), an adjunct document which is published separately from NFA's functional specification. A summary of the source for these enumerations is outlined below:

IR

- ***http://www.fpml.org/spec/coding-scheme/index.html***
  - **5.84 floatingRateIndexScheme**

CD

- **Markit Red Code – although may not be freely available**
- **CUSIP / ISIN of reference obligation for single-name**

FX

- **ISO Codes**

Commodities

- **Clearinghouse enumerations**

Equities

- **Listing Ticker**

Question 14

For the identifiers in each asset class, are there corresponding reference data that are open-source and freely available to all users with open redistribution rights?

See Product Matrix – Markit Red Code on CDS may not be freely available depending upon interpretation.

Question 15

For a classification system that does not include an identifier for underliers in all asset classes, what classification systems are available that are open-source and freely available to all users with open redistribution rights? What are the data elements included in these systems?

ISDA / FpML's work on product taxonomies was leveraged in developing NFA's product classification system. This is included in Appendix B.

Question 16

Based on the examples provided in this section and in Annex 5, do you have comments on how the allowable values would be technically managed or/and how they are technically managed in the case of existing classification system solutions?

Experience maintaining NFA's product classification system has shown a need to be flexible and able to quickly adapt to and incorporate industry feedback and innovation. NFA leveraged FpML's work in attempts to be consistent with industry standards. This has enabled NFA's systems to scale and adapt well. It was has also enabled NFA's systems to be interoperable with various industry solutions that leverage FpML data transfers as part of API calls.