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Submitted via email to cpmi@bis.org and upi@iosco.org

London, February 24th 2016

CPMI-IOSCO Consultative Report on Harmonisation of the Unique Product Identifier

Dear Sirs and Mesdames,

Markit is pleased to submit the following comments to CPMI-IOSCO in response to its Consultative Report on *Harmonisation of the Unique Product Identifier* (the “Consultative Report” or “CR”).

Markit¹ is a leading global diversified provider of financial information services.² Many of our products are RegTech services that are designed, often in consultation with market participants, to help them comply with regulatory requirements in an effective and efficient manner. Founded in 2003, we employ over 4,000 people in 11 countries and our shares are listed on Nasdaq (ticker: MRKT). Markit has been actively and constructively engaged in the debate about regulatory reform in financial markets, including topics such as the implementation of the G20 commitments for OTC derivatives and the design of a regulatory regime for benchmarks. Over the past years, we have submitted more than 140 comment letters to regulatory authorities around the world and have participated in numerous roundtables.

Introduction

Markit’s Reference Entity Database (“RED”) platform has been providing legally verified reference data across credit, loan, and fixed income asset classes to the industry for many years. Markit’s reference data for credit default swaps (“CDS”) has been used by the credit OTC derivatives industry for more than a decade and it is an integral part of credit workflows. The RED platform has two core components. First, there are Reference Entity Database Codes or “RED6 Codes.” The RED6 Code is a six-digit code that corresponds to a particular reference entity. Second, there is the nine-digit RED Pair Code or “RED9 Code” that is a nine-digit code representing a unique reference obligation with a corresponding reference entity. RED6 Codes are market standards and are deeply embedded in the pre- and post-execution credit trading workflows. These identifiers are also widely used in risk analytics, pricing and valuations, trade confirmations, electronic trading, clearing, settlement and trade allocations.

Markit appreciates the challenges authorities face in aggregating OTC derivatives data reported across a significant number of trade repositories (“TRs”) and we are supportive of the efforts of various regulatory bodies, including the Harmonisation Group, in achieving a global solution to uniquely identify OTC

¹ See www.markit.com for more details.

² We provide products and services that enhance transparency, reduce risk and improve operational efficiency of financial market activities. Our customers include banks, hedge funds, asset managers, central banks, regulators, auditors, fund administrators and insurance companies. By setting common standards and facilitating market participants’ compliance with various regulatory requirements, many of our services help level the playing field between small and large firms and foster a competitive marketplace.

derivative products and transactions. To this effect, Markit has engaged with regulators and industry associations to arrive at a comprehensive solution:

- Markit is a participant in the ISDA Symbology Governance Committee (“SGC”) that is “aimed at developing an open-source standard OTC derivatives product identification system that can be applied consistently and comprehensively across all OTC derivatives facilities”³ to agree on a product identifier solution for credit derivative products;
- Markit has previously proposed a global credit UPI solution that leverages its existing RED service to the ISDA SGC, the industry more broadly, and several regulatory authorities; and
- Markit has closely followed and participated in the dialogue regarding OTC derivatives data and has responded to consultations issued by the FSB⁴, CPMI-IOSCO⁵ and CPSS-IOSCO,⁶ as well as national authorities.

Markit has significant experience in providing identifier codes and reference data to the industry for a number of years and has developed deep understanding of the processes and systems which use such identifiers. Given that the RED6 Codes are deeply embedded in credit workflows, we have also garnered first-hand experience of the operational and implementation challenges that the industry would likely face when adopting a harmonised Unique Product Identifier (“UPI”).

I. Executive summary

As described in further detail below, we opine that, among other things:

- A credit UPI that leverages Markit’s credit reference data service is best equipped to meet the CR’s “principles and high-level business specifications” and would do so much more quickly and effectively than any foreseeable credit UPI alternative.
- In order to ensure the fulfillment of the Jurisdiction-Neutrality Principle, we recommend that the Harmonisation Group and its members (i) avoid anointing a particular global UPI solution (especially before it has proven itself as capable of complying with the Principles) and (ii) permit reasonable, narrowly-tailored usage restrictions intended to encourage contribution to a global UPI solution by UPI providers that produce the underlying or complementary reference data while ensuring that the UPI is open-source and freely available with open redistribution rights.

While the Harmonisation Group should aim to avoid the establishment of a UPI solution that *benefits* a particular provider, the Harmonisation Group should equally avoid imposing *undue costs* on UPI providers in order to encourage contribution to UPIs by commercial providers. We also provide some data analysis we hope will help inform the Harmonisation Group’s consideration of the appropriate degree of granularity for OTC credit derivatives.

II. Discussion

³ See ISDA’s Symbology initiative: <http://www2.isda.org/news/isda-launches-new-industry-initiative-for-a-derivatives-product-identification-standard>

⁴ FSB’s Aggregation Feasibility Study: <https://www.markit.com/Company/RegulatoryResponsesFile?CMSID=7856499bdd534994810ad25f5561ba58>

⁵ CPMI-IOSCO’s consultative report on Harmonisation of the Unique Transaction Identifier: <https://www.markit.com/Company/RegulatoryResponsesFile?CMSID=163ac5df1fe4481892acff417353dfcb>

CPMI-IOSCO consultative report on harmonisation of Key OTC derivatives data elements (other than UTI and UPI) – first batch: <https://www.markit.com/Company/RegulatoryResponsesFile?CMSID=1a2ae155692d48dfbdaa1e488d77e3cb>

⁶ CPSS-IOSCO’s consultative report on OTC derivatives data reporting and aggregation requirements. See Markit’s response: <https://www.markit.com/Company/RegulatoryResponsesFile?CMSID=97f8a389cc1c40d2b258b23e7a3fa6db>

a. Request for comment questions

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.

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.

Question 7: Could some of these principles and high-level specifications pose implementation challenges? Which ones and why?

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.

For the credit derivatives asset class, we recommend a UPI solution based on Markit’s existing RED service (“RED UPI”). We think this RED UPI is best equipped to meet the CR’s “principles and high-level business specifications” (“Principles”) and can do so much more quickly than any foreseeable alternative as described in detail below. We will focus our discussion on a credit UPI although much of our discussion would apply if the scope of the UPI extended beyond credit. In what precise form and whether we implement a RED UPI would be based on the contents of the Harmonisation Group’s final report, related national requirements, and sustained dialogue with regulators, the industry, and the public. The Harmonisation Group should note that our RED UPI proposal is an initial sketch of an opening bid that, we hope, will encourage the Harmonisation Group and national regulators to work with us, the industry, and the broader public to implement it.

The RED UPI’s Underlier ID would consist of the RED6 Code combined with embedded data elements. These can be either: (1) Option 1- a selection of the ISDA credit taxonomy data elements, as Markit has refined through dialogue with the industry, ISDA SGC, and some regulators; or (2) Option 2 – the RED UPI could be deployed in accordance with the Harmonisation Group’s credit UPI example embedded data elements.⁷ Here is an example of an Option 1 RED UPI:

Trade Details	Actual Value	UPI Value	# Values
Asset Class	Credit	CR	2
Trade Type	Single Name	S	1
Reference Entity	Ford Motor Company	3H98A7	6
Seniority	Senior	SENR	4
Restructuring	Yes	Y	1
ISDA Transaction Type	Standard North American Corporate	SNAC	4
Currency	USD	USD	3
Maturity Month	March	H	1
Maturity Year	2016	16	2
Coupon	500	0500	4

⁷ CR at 15.

The Option 1 data elements are the result of months of dialogue with the industry and certain regulators. We are confident that they provide sufficient data granularity to address industry UPI use cases. Option 2 data elements are not functionally dissimilar to the Option 1 data elements and we believe we could easily accommodate Option 2 data elements.

We contrast this RED UPI with a UPI based on the Association of National Numbering Agencies' ("ANNA") International Securities Identification Number ("ISIN"). We call this UPI solution the "ANNA UPI."⁸

A third UPI solution we will discuss that we are currently neutral toward (but have spent considerable thought considering) is: an "LEI UPI." This UPI solution would involve a level of granularity that includes an identifier for the underlying reference entity that is based on the reference entity's Legal Entity Identifier (where available). The LEI UPI would replace the RED6 Code with the LEI where available and in all other instances some other identifier could be used, including a RED6 Code.

We will describe each one of the Principles as applied to each of the solutions described above in the discussion that follows. In the course of applying and commenting on these Principles, we comment on some related points.

1. Jurisdiction-neutrality

"The approach to the harmonisation of classification systems should not depend on factors that are specific to a jurisdiction, but should be based only on the inherent characteristics of products."

We welcome the inclusion of the Jurisdiction-Neutrality Principle. We believe that the major implementation challenge with this Principle is that many jurisdictions' rules are contradictory.

- **Usage restrictions under SEC and ESMA rules are a major impediment to ensuring the implementation of a jurisdiction neutral UPI**

There is one jurisdictional conflict that would preclude the implementation of a global jurisdictionally neutral UPI that we seek to highlight. Under U.S. Securities and Exchange Commission ("SEC") Rule 903, a UPI or "Product ID" in SEC parlance, may not have any "usage restrictions."⁹ SEC staff has interpreted the no usage restriction to encompass any assertion of property right over or any requirement to license or agree to terms of use for a UPI or constituent of a UPI. In contrast, under RTS 23 the European Securities and Markets Authority ("ESMA") proposes to mandate the use of a proprietary

⁸ ANNA is a global association of the dominant numbering agencies in over 120 nations. Some ANNA members are affiliated with central banks or regulators. Many other ANNA members are affiliated with for-profit businesses, e.g., central securities depositories, data vendors, and stock exchanges. Each nation has one numbering agency as a member. For example, the U.S. and U.K. each have a single ANNA representative, a for-profit data vendor and a for-profit exchange respectively – despite the presence of many other data vendors and exchanges in these countries. No nation has more than one member involved in ANNA.

⁹ Regulation SBSR—Reporting and Dissemination of Security-Based Swap Information; Final Rule, 80 Fed. Reg. 14,564, Mar. 19, 2015, available at <https://www.gpo.gov/fdsys/pkg/FR-2015-03-19/pdf/2015-03124.pdf>. "In light of the requirement in Rule 903(b) that the information necessary to interpret coded information be widely available on a non-fee basis, it would be inconsistent with the rule for a registered SDR to permit information to be reported pursuant to Rule 901, or to publicly disseminate information pursuant to Rule 902, using codes in place of certain data elements if the registered SDR imposes, or permits the imposition of, any usage restrictions on the disseminated information." Id. at 14,634.

identifier, i.e. ISO 6166, as the identification standard for all instruments traded through a trading venue or a systematic internaliser within the scope of MiFID II / MiFIR.¹⁰ The CR has signaled a similar preference where it used ISINs as the underlier source in a number of places when describing the data elements constituting a credit derivative product.¹¹

The ANNA UPI solution if it resembles ISIN as it is administered today would include mandatory terms of use.¹² These terms of use include the following provision that assert property rights and require “express permission” to redistribute materials from ISIN.org (a website that includes the ISIN Database¹³):

This [ISIN] website contains copyrighted material; trademarks and other proprietary information including text, software, photos, video, graphics, music and sound, and the entire contents of this website are copyrighted as a collective work under the United States copyright laws. Isin.org is the owner of the copyright of this site. Isin.org owns a copyright in the selection, coordination, arrangement and enhancement of such content, as well as in the content original to it. [...] Except as otherwise expressly permitted under copyright law, you may not copy, redistribute, publish, display or commercially exploit any material from this site without the express permission of Isin.org and, if applicable, the copyright owner. In the event of any permitted copying, redistribution or publication of material from this site, no changes in or deletion of author attribution, trademark, legend or copyright notice shall be made. You acknowledge that you do not acquire any ownership rights by downloading or copying copyrighted material.

ISINs have “usage restrictions” and therefore any UPI service utilizing ISINs would presumably be in violation of SEC Rule 903. Meanwhile, an ISIN-based UPI appears to have the full backing of ESMA at the moment. A state of affairs is emerging therefore wherein it would be impossible for the ANNA UPI or any other UPI solution for that matter to comply with both SEC requirements and the ESMA proposal at the same time. We urge the Harmonisation Group to work to resolve these kinds of regulatory conflicts in order to ensure that the Jurisdiction-Neutrality Principle is given full effect.

While ESMA is correct in implicitly approving some degree of usage restrictions for UPIs, they have gone too far in protecting the intellectual property rights of the ISIN administrators. This is because, most importantly, ISINs do not have open redistribution rights.

In contrast, the SEC has interpreted their no usage restriction policy too expansively. On the basis of its proposals a reference data vendor would not be able to recoup costs associated with a reference data service and would be severely disincentivised from providing reference data used in a UPI if that reference data can be commercially exploited without penalty by other reference data vendors. For example, the Harmonisation Group should note that to generate reference entity and reference obligation data, Markit spends considerable time and resources to ensure that reference entity and reference obligations are accurate, updated, and comply with the specific terms of and intentions underlying a particular CDS contract. This process of generating reference data from CDS contract terms, registration documents, legal verification by affiliated counsel, and prospectus reviews requires a significant expenditure of resources that would become impossible to recoup if a reference data vendor was unable to protect its ability to protect the reference entity data fueling a UPI.

¹⁰ RTS 23 Article 3 (Identification of financial instruments and legal entities) Paragraph 1: “Prior to the commencement of trading in a financial instrument in a trading venue or systematic internaliser, the trading venue or systematic internaliser concerned shall obtain the ISO 6166 International Securities Identifying Number (ISIN) code for the financial instrument.”

¹¹ See CR at 15 and 16.

¹² ISIN Terms of Use, <http://www.isin.org/terms-of-use/> (last visited Feb. 2, 2016).

¹³ See ISIN Database, <http://www.isin.org/isin-database/> (last visited Feb. 2, 2016).

To provide another example, a reference data vendor is incentivised, because of the existence of a commercial opportunity, to ensure that corporate actions data relating to particular reference entities is fully up-to-date. If that corporate action information is embedded in a UPI data element, then it would be possible for any firm to reproduce the contributing corporate action data service by running continual queries on the UPI database and avoid licensing the corporate action service. This commercial exploitation or misuse could be prevented through a condition on an otherwise very broad license to the UPI against commercial exploitation or misuse of the reference data elements embedded in the UPI.

We recommend the Harmonisation Group endorse protections against the commercial exploitation or misuse of reference data embedded within a UPI in order to facilitate reference data vendors to contribute to a global solution. A UPI that benefits from existing reference data solutions can be implemented globally at the lowest possible cost for the public since such a UPI leverage existing capabilities, i.e. there are significantly reduced new fixed cost investments required to develop a comprehensive UPI solution that utilises existing reference data sources as opposed to one that must be created anew.

We think that the optimal policy solution to the ESMA-SEC usage restriction conflict is a compromise: the Harmonisation Group and its members should (i) avoid anointing a particular global UPI solution (especially before it has proven itself as capable of complying with the Principles) and (ii) permit reasonable, narrowly-tailored usage restrictions intended to encourage contribution to a global UPI solution by UPI providers that produce the underlying or complementary reference data while ensuring that the UPI is open-source and freely available with open redistribution rights. While the Harmonisation Group should aim to avoid the establishment of a UPI solution that *benefits* a particular provider (e.g., through permitting anything more than cost-based fees), the Harmonisation Group should equally avoid imposing *undue costs* on UPI providers in order to encourage contribution to UPIs by commercial providers (e.g., by protecting the ability of commercial UPI providers to prevent commercial exploitation or misuse of reference data utilised in the UPI).

In the interim, before the Harmonisation Group issues a final report, both ESMA and the SEC could take action to promote the Jurisdiction-Neutral Principle:

- We recommend ESMA take the following steps to facilitate the implementation of a UPI that meets the Jurisdiction-Neutral Principle. First, ESMA should defer mandating the use of ISINs in its technical standards until the Harmonisation Group publishes a final report regarding UPIs. Second, ESMA should move toward a principles-based approach to UPIs as opposed to anointing a particular proprietary identifier (i.e. ISINs), similar to the approach taken by the Harmonisation Group.
- Similarly, we recommend the SEC also act in two ways to facilitate the implementation of a UPI that meets the Jurisdiction-Neutral Principle. First, the SEC, like ESMA, should also defer on imposing Product ID reporting obligations until the Harmonisation Group completes a final report through no-action relief. Second, the SEC should consider adopting an interpretation of its no usage restrictions rule that recognises the commercial realities that exist in the reference data marketplace and allow protections against commercial exploitation or misuse of reference data embedded within a Product ID. The SEC could still continue to require through the no usage restriction requirement that a Product ID remain “open-source” and “freely available” with “open redistribution rights.”

2. Uniqueness

“Every reportable OTC derivatives product should typically be identified by one distinct set of elements within the classification system. Different reportable OTC derivatives products should have different UPIs.”

This Principle appears tautological since it seems to be saying that every unique OTC derivatives product should have a unique product identifier. We ask the Harmonisation Group to provide additional clarity on what this Principle would mean to a prospective UPI producer and the broader industry. Moreover, this Principle appears to conflict with the Harmonisation Group’s goal to minimise the number of UPIs that have fewer than 5 transactions.

3. Consistency

“Regardless of structure, the classification system should describe each OTC derivatives product using a consistent set of data elements, notwithstanding the fact that different asset classes may have different sets of data elements to describe the product.”

Consistency can become an issue when reporting parties are given discretion in determining the data elements to report for a given trade. The RED UPI has been designed to ensure that the same data elements are reported for the same trade, regardless of reporting party, through the use of standard data fields and a common symbology for those data fields. Also, reliance on major market infrastructures to generate a UPI, e.g., trade processors like MarkitSERV, trading venues, clearinghouses, etc., would facilitate consistency of reporting in contrast to a regulatory regime that encourages participant-level reporting. We therefore encourage the Harmonisation Group to expressly recognise the value that trade processors, in particular, as third-party reporting agents for most reporting entities, will provide in ensuring consistency.

With respect to the RED UPI solution, Markit would offer all of its customers a service to generate UPIs based on trade details. Since MarkitSERV is involved in the processing of a large percentage of OTC derivative transactions, this means that with a RED UPI ensuring a consistent UPI will be relatively easy.

4. Persistence

“An OTC derivatives product, once described in the classification system and assigned a code, should keep the same classification.”

This Principle could be ensured through robust mechanisms to link obsolete UPI metadata to updated records, a function the UPI provider should be able to perform. In the case of the RED UPI, because of Markit’s corporate actions and broader CDS reference data services, Markit would be uniquely equipped to update UPIs once reference entity metadata becomes stale, e.g., through reference data we generate relating to corporate actions or credit events.

Markit already plays a significant role in managing all corporate action, credit event, and succession events for the CDS market today. Our existing commercial arrangements with the DTCC Trade Information Warehouse, trade repositories, confirmation platforms, SEFs, clearinghouses, and market participants mean that we can process these events quickly and reliably. Our UPI solution would leverage these existing processes ensuring data consistency and persistence across the industry

A RED UPI would ensure persistence of data across the global portfolio of products as opposed to another type of solution utilizing a randomly generated code. In contrast to such a UPI model, the implementation of the RED UPI, because it is intelligible, would also be much faster and less prone to error. For example, in a RED UPI context market participants would not have to attempt to map legacy data points with any new designation for a particular product since the elements of the RED UPI are persistent.

5. Adaptability

“The classification system should be capable of adapting swiftly to market changes and innovations, including the introduction of new OTC derivatives products, as well as to the evolving aggregation needs of authorities (eg new regulation for a specific product or market segment).”

A benefit of a UPI that leverages an industry solution is that commercial incentives lead data vendors to adapt their reference data offering to new products, features, processes, and other innovations. In contrast, a UPI that has to develop under significant constraints that preclude or limit any commercial incentive would be significantly less capable of adapting to changing market circumstances. The Harmonisation Group and the FSB should be cognisant of commercial incentives and how they can be channeled to ensure the implementation of a UPI that meets this Adaptability Principle.

6. Clarity

“The classification system should be clear and unambiguous, supported by comprehensive and freely available documentation, instructions and guidance in order to support market participants’ understanding and use of the classification system (eg to provide precise definitions of each of the values that can be taken by each data element in the classification system).”

Our proposed RED UPI solution would be fully transparent and we would offer a web portal for firms to look up RED UPIs so that they can have free access to the precise definitions of each of the values corresponding to a particular UPI string or, alternatively, generate a UPI based on particular trade details. This database would be similar to the ISIN.org database, except the usage restrictions would be much narrower (e.g., there would be no requirement to obtain permission to redistribute data), as described above in our discussion of the Jurisdiction-Neutrality Principle.

7. Ease of generation/acquisition/query

“It should be possible to easily check whether a classification already exists, or not, and if needed, generate or acquire one in a timely manner.”

As part of the RED UPI, Markit would host or establish a website that would allow all members of the public to decode or code a UPI based on trade details without charge. As a part of the RED UPI service, Markit would also offer an Application Programming Interface (“API”) to firms that seek an automated means to generate or decode UPIs. Such API could be integrated into pre- and post-trade systems to enable the use of the UPI in a timely manner by market participants.

8. Long-term viability

“The classification system approach should be one that would be expected to remain valid for a number of years. It should be practicable now and not be limited by technological or legal constraints that exist in 2015 but which could reasonably be expected to change in the near future.”

The RED UPI service would be embedded within Markit's current credit reference data service. Markit would establish legal mechanisms to ensure that any acquirer of the service would continue to administer the RED UPI. If Markit or any successor to Markit that owned the Markit credit reference data defaulted, Markit would ensure that the intellectual property underlying the RED UPI would be automatically released into the public domain (e.g., by placing the source code for all RED UPI data elements in escrow) and leave the administration of the RED UPI to a firm that would be willing to undertake the job of administering the RED UPI or to regulators.

9. Scope-neutrality

"The proposed classification system should work in a context where there are some differences in the scope of reporting regimes for OTC derivatives and where some of these differences are unlikely to be harmonised. Following the characteristic that the classification system should be jurisdiction-neutral, this leads to the following more detailed characteristic:

The definition of "OTC derivatives" varies across jurisdictions. Thus, the guidance for the classification system should not depend on the precise definition of "OTC derivatives" (which is not harmonised at a global level) but instead should be generally applicable to any product that might be classified as an "OTC derivative" within a particular jurisdiction and that needs a classification system for reporting purposes."

We have focused our efforts toward deploying a solution for a fairly well-defined class of financial instruments, OTC credit derivatives. Therefore this Principle is less relevant for the RED UPI solution we are proposing.

10. Compatibility

"The classification system should rely on open standards that facilitate compatibility with existing automated systems of financial market infrastructures (eg trade repositories), market participants, and regulators."

Importantly, in contrast to other credit UPI proposals, the RED UPI is fully compatible with existing credit workflows and infrastructures. The marketplace currently relies on RED and therefore adoption and integration of a RED UPI into workflows can happen with little difficulty or additional cost. Other UPI solutions, especially ANNA and LEI UPI solutions would require potentially significant and costly modifications to existing systems, workflows, and infrastructures.

11. Comprehensiveness

"The classification system, in conjunction with other data elements, should be able to accommodate any OTC derivatives product that is subject to a reporting requirement, and it should also meet various other regulatory needs, by supporting regulatory functions such as market surveillance, risk analysis, dissemination of market information, and regulatory research. The classification system should also support enhanced market transparency, improved risk management and increased operational efficiency."

The RED UPI's comprehensiveness is demonstrated through the fact that Markit's broader RED service is currently relied upon by market participants for risk analysis and management. Market participants would not subscribe to RED if it did not enhance their ability to manage their firm-wide risks and to

trade, process, and price trades accurately. A RED UPI therefore contains the essential elements regulators would need to understand firm-wide credit positions and risk which, in turn, provides a solid foundation to perform market surveillance, risk analysis, and to meet other regulatory needs. In essence, the creation of a RED UPI would bring the currently private credit reference data world into the public domain and allow regulators to leverage existing reference data that provides accurate insight into the risk positions of a firm and extend that insight into the broader global marketplace, enabling regulators to perform their core functions and to do so relatively expeditiously in contrast to a solution that does not leverage existing reference data.

In contrast, a UPI based on LEIs necessarily does not cover reference indexes nor does it cover reference entities that do not have an LEI. We note that generally, the regulatory obligation to obtain an LEI only applies to market participants and therefore CDS transactions with Underlier IDs that correspond to non-market participants, e.g., special purpose vehicles, trusts, and other non-trading entities are unlikely to be covered. Moreover, we note that many sovereigns have refused to obtain LEIs.

Markit's RED database contains approximately 14,000 reference entities that have had trades placed on them in the past 12 years. Of these approximately 14,000 reference entities, 10,000 are monitored by RED customers ("Active REDs") and approximately one-third of these Active REDs has an LEI today (we expect this population to increase but with limits). Of the Active RED population there are approximately 890 credit indices (including structured credit indices) that do not have LEIs. 121 sovereign reference entities are also Active REDs but do not and are unlikely to ever have LEIs. In addition, 887 reference entities are either special purpose vehicles, trusts, or other non-trading entities (primarily corporates). In short, over 19% of the Active REDs are highly unlikely to ever obtain LEIs.

12. Extensibility

"Some jurisdictions could require the reporting of transactions that are not OTC derivatives (eg exchange-traded OTC derivatives or securities financing transactions) through the same channels (ie using the same reporting formats and rules and/or the same TRs) as for OTC derivatives transactions. Accordingly, compatibility with or adaptability to accommodate for a broader range of financial products (including derivative products traded on exchange) should be considered a desirable characteristic of a classification system."

The RED UPI is broadly extensible within the credit asset class. The RED UPI could easily extend to exchange-traded, bilaterally-traded, brokered, or other kinds of OTC credit derivatives.

The RED UPI would also contribute to extensibility beyond credit. The infrastructure we would establish, e.g., the public RED UPI database, API feeds, UPI trade processing services, etc., could all be readily repurposed to facilitate non-credit UPIs. We would be eager to participate in a broader UPI solution with regulators and the industry and to explore ways to leverage the RED UPI infrastructure for non-credit UPIs. We do not offer the same kind of reference data offering for other asset classes that have made us the natural starting point for a credit UPI.

13. Precision

"The classification system should be well articulated, and should classify with sufficient detail and level of granularity to enable regulators to fulfil their regulatory responsibilities."

We would recommend that, in order to ensure the maximum degree of precision, the Harmonisation Group should encourage commercial firms to use their private reference data services to enrich UPIs,

as discussed in our response to the Jurisdiction-Neutral Principle. This application of this Principle to the RED and LEI UPIs separately is instructive. To fully understand a credit derivative, regulators should know precisely the reference entity's status. Corporate actions can affect a reference entity's status, e.g., mergers and acquisitions, rights issues and spin offs, successions, renames, dissolutions, de-mergers, credit events, etc. Markit RED6 Codes are continuously updated and monitored to account for these activities. If we failed to do so, RED would cease to be competitive and competitors can take market share. Markit is able to leverage its extensive Corporate Actions reference data service¹⁴ to update the metadata associated with a particular RED6 Code.

In contrast, while the LEI database is extending into an ever growing list of companies, resulting in the issuance of more LEIs, the onus is on the LEI holder to submit corporate changes which may or may not happen promptly and is least likely to occur around the most important moments in the credit markets: at the time of credit events. As such LEIs are not updated as frequently as the RED database. To provide an example of potential issues related to using LEIs for the reference entity Underlier ID source is that market participants can confirm a CDS contract on one legal entity name and an obligation pairing but then report an inaccurate risk position to a regulator due to this latency in the LEI being reviewed or maintained frequently.

It should also be noted that while some parties advocate the use of LEI or ISIN codes for the Underlier ID source, it is also vitally important in a CDS contract to confirm the trading risk and report the relationship of an issuer or guarantor in conjunction with any obligation. The RED service does this today and provides unique identifiers for these relationships.

Moreover, a solution that reports only an ISIN of an obligation on a CDS contract (i.e. the ANNA UPI) is also flawed by not using a system to identify issuer or guarantor relationships. This could lead to incorrect aggregation of market risk in participants' positions as reported to regulators and present significant basis risk for market participants confirming trades inappropriately.

14. Public dissemination

"The classification system should support public dissemination of OTC derivatives data as may be required by a particular jurisdiction."

To avoid any ambiguity, Markit would grant to the public and trade repositories a broad license to use the RED UPI it publishes for public dissemination and redistribution, this would include all post-trade and other regulatory defined purposes, in accordance with the requirements of particular jurisdictions. Our plan would be to allow free, unrestricted access to the RED UPI database on a Markit or other UPI website. The only restrictions on this license would protect against commercial exploitation or misuse of reference data embedded in the UPI. This restriction would be far narrower than the licensing arrangements that are currently in place by trade repositories and ANNA's ISIN. We do not believe this very limited restriction would materially impact market transparency.

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)?

¹⁴ "The Markit team validates data through an intricate and precise process of consolidating, researching and validating announcement information. Through this validation process, we enhance vendor records and resolve conflicting information to provide customers with a single golden corporate action record. The service offers a low-cost entry point to the comprehensive and high quality data once only available to those who subscribed to multiple, expensive data sources." Markit Corporate Actions, <https://www.markit.com/Product/Corporate-Actions>.

The Harmonisation Group has stated that the “optimal level of granularity for a product classification system is one that would keep to a minimum the number of product groupings that contain only a single or a limited number of transactions”.¹⁵ In furtherance of this principle, CPMI-IOSCO conducted a quantitative study¹⁶ on the basis of which the harmonisation group proposed two product classification systems: one which include an identifier for the specific underlier and the other which would not include a specific identifier for the underlier.

We believe that a credit UPI that leverages the Markit RED service, i.e. the RED UPI, provides an optimal degree of granularity to enable regulators to perform their responsibilities, e.g., market surveillance, risk analysis, etc. The simplest reason we can offer in support of this view is that the RED service utilised by the RED UPI contains what firms have found necessary to monitor and manage their private risks which, in turn, provides a sound foundation for regulators monitoring for large exposures to particular reference entities or indexes indicative of threats to firm-wide financial stability, systemic risk, manipulative or abusive intent, etc.

Nevertheless, we offer some analysis to help the Harmonisation Group in their consideration of the appropriate degree of granularity for OTC credit derivatives. We note further that there are some benefits to less granular approaches to the UPI, but these approaches would require more reliance on other data elements to perform certain regulatory mandates.

In discussing the effect of the degree of granularity for credit OTC derivatives, we cite Example 1 from the Consultative Report.¹⁷ A product classification system that includes the identifiers for Underlier ID source and Underlier ID would result in a product classification system with at least as many product groupings as there are entities referenced in credit default swaps which are reportable, if the Underlier ID corresponds to a particular reference entity (i.e. a RED6 Code). This number of product groupings would be greater¹⁸ if the Underlier ID source would be a reference to a specific obligation.¹⁹ The number of product groupings is further exacerbated if we consider a credit forward agreement as illustrated in Example 3, where the number of product groupings would be equal to the product of the number of all possible sovereign underliers and the number of all possible corporate underliers.

Markit has conducted a quantitative analysis on single name credit default swaps, similar to the one done by the Harmonisation Group on interest rate swaps in Annex 4, to illustrate the issues around granularity of the UPI. Markit has used transaction data from its derivatives processing platform to conduct this analysis taking into account European and North American single name CDS trades processed through its platform²⁰ between January 2015 and December 2015.

The analysis takes into account various ISDA transaction types²¹ as the starting point and then assesses the impact of an additional layer of granularity by considering a UPI that also contains an identifier for the underlying reference entity. The identifier for the reference entity considered is the Markit

¹⁵ CR at 13.

¹⁶ CR at Annex 4.

¹⁷ CR at 15, Example 1: A cash-settled credit default swap on the five-year bond of corporation X, with maturity on 20 December 2020

¹⁸ This example focusses only when there is one underlier in a CDS. In the event there are more than one underlier to the product, as illustrated in Example 3 on page 16, the number of product grouping would at least be equal to the product of Underlier1 sub-type and Underlier2 sub-type.

¹⁹ In Example 1, the CR uses ISIN as Underlier ID source.

²⁰ Markit’s derivatives processing platforms process over 99% of all single name CDS transactions conducted in the marketplace

²¹ ISDA Master Document transaction types or MDTTs are defined here:

http://www.isda.org/c_and_a/Credit-Derivatives-Physical-Settlement-Matrix.html

RED6 identifier. This analysis is conducted separately for Single name European and North American CDS.

Europe:

Single Name CDS - Europe	ISDA Transaction Type	ISDA Transaction Type + Reference Entity (RED6)
Total number of groups	17	1,103
Total number of groups with 5 or less transactions	11	923 (83.7 % of total number of groups)
Total number of groups with 1 transaction	0	16 (1.45 % of total number of groups)
Total number of groups with 0 transactions	0	623 (56.4 % of total number of groups)

North America

Single Name CDS – North America	ISDA Transaction Type	ISDA Transaction Type + Reference Entity (RED6)
Total number of groups	8	1,277
Total number of groups with 5 or less transactions	1	790 (61.86 % of total number of groups)
Total number of groups with 1 transaction	0	15 (0.7 % of total number of groups)
Total number of groups with 0 transactions	0	487 (38.13 % of total number of groups)

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.

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?

The Harmonisation Group has stated that the purpose of the CR is to “produce clear guidance about the definition, format and usage of a UPI”²² and it does not cover “the governance structure, including implementation and maintenance of the UPI”.²³ We question the decision to defer to the FSB in relation to the governance issues related to the UPI. We believe that, just as there are certain implementation challenges, there are governance issues that stem from the CR’s avowed goal of promoting an “open-source,” “freely available” UPI with “open redistribution rights.” These terms need to be clarified with an opportunity for comment for the public.

To provide a particular example of issues related to the interpretation of these terms beyond those discussed above, we recommend the Harmonisation Group (or FSB) ensure that the identifier is truly open source with open re-distribution rights, the Harmonisation Group (or FSB) should ensure that the

²² See CR at 1 and 3.

²³ See CR at 1.

UPI provider makes the identifier available for use to other vendors and market participants without preferential access for affiliates or customers or others with real penalties for violating this requirement.

We hope that our comments are helpful to CPMI-IOSCO. We would be more than happy to elaborate or further discuss any of the points addressed above in more detail. In the event you may have any questions, please do not hesitate to contact the undersigned or Salman Banaei at salman.banaei@markit.com.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'M. Schüler', with a stylized flourish at the end.

Marcus Schüler
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