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To: Secretariat CPMI (cpmi@bis.org) and IOSCO (upi@iosco.org)

Response to the consultative report: Harmonization of the Unique Product Identifier (www.iosco.org/library/pubdocs/pdf/IOSCOPD519.pdf), requested by the Committee on Payments and Market Infrastructures (CPMI) Board of the International Organization of Securities Commissions (IOSCO), December 2015.

We respectfully submit this response to the above consultative paper in the attached.

Financial InterGroup (FIG) has been active in the financial industry for nearly three decades - as thought leaders and advisors to financial institutions, regulators, vendors and financial infrastructure entities. Its principals and advisors have experience in finance spanning six decades. We believe we have made significant contributions to the dialogue on financial reform in the past through bringing a unique understanding of the overlapping spheres of risk management, data management and technology in the financial services industry. We have responded to many of the FSB and IOSCO-CPMI consultations on the LEI, the UTI, on data aggregation, and now on the UPI. We have authored comments in private forums and public consultations and have contributed to the academic literature in this regard. Much of this work is in the public domain.

Sincerely,

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Response to the consultative report:

Harmonization of the Unique Product Identifier

In September 2014, the Financial Stability Board (FSB) published a study of the feasibility of options for a mechanism to produce and share global aggregated data (Aggregation Feasibility Study). One of the study's conclusions was that "it is critical for any aggregation option that the work on standardization and harmonization of important data elements be completed, including in particular through the global introduction of the Legal Entity Identifier (LEI), and the creation of a Unique Transaction Identifier (UTI) and Unique Product Identifier (UPI)".

The consultation also states that "the FSB is also planning future work with CPMI and IOSCO to provide official sector impetus and coordination for the further development and implementation of uniform global UTIs and UPIs".

While the mandate of the IOSCO-CPMI's Harmonization Group is to develop guidance regarding the definition, format, and usage of key OTC derivatives data elements, including UTIs and UPIs, it does not include addressing issues that are planned or are already covered by other international work streams. This excludes the legal, regulatory and technological issues related to the implementation of a global aggregation mechanism, or the governance and legal issues related to the UTI and UPI.

We think this is a mistake as the UTI, UPI and LEI are pillars of data aggregation and obviously interrelated. They need coordination at this stage of their definition. Already in a separate consultation by IOSCO-CPMI the LEI is being considered for associating it with the UTI to create uniqueness of the UTI. ISDA has already incorporated a shorter version of the LEI to associate it with its USI (Unique Swaps Identifier) for reporting to the CFTC. ISDA's method allows counterparties themselves to create their own transaction generation algorithms such that the combination of the shortened LEI and this transaction code becomes unique globally. This is not much different from IOSCO's earlier proposal for the LEI code construction to have a code assigned (a prefix) to ultimate parents and then allow each to attach and assign a suffix of their own choosing for every one of their legal entities.

In a recent meeting with IOSCO-CPMI and industry participants in Washington DC earlier this month the UTI was seen as fulfilling the contract/legal terms component of the UPI, thus suggesting categorizing data elements between these two identifiers. These codes will eventually be part of every financial transaction, certainly swaps transactions, and as implementations progress, all financial transactions. If the objective of regulators for data aggregation is to perform systemic risk analysis and for industry to improve risk management and reduce infrastructure costs, a coordinated effort is needed. The coordination is needed at the code construction level, at the data element level, at the data aggregation level, and finally at the level of use cases for meeting these objectives. We need some assurances that all this effort will be fit for this ultimate purpose. We should not be operating in silos as we have in the past as we are trying to solve global issues with global solutions.

It is FIG's view that the most significant component of the capability to aggregate data is to be found in the LEI, UTI and UPI code construction itself, and an integrated view of their construction needs to be

addressed by some regulatory standards body. The FSB is the logical one to pull this together with industry participation in a partnership with industry members. The most logical participants are the SIFI/Swaps Dealers as they are at the center of regulatory scrutiny and the first to be impacted by many of these regulations, certainly by the first use of the UPI, UTI and LEI.

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?

Leveraged Exchange Traded Funds and Notes that use swaps, credit indices, and other OTC derivatives and forward settle would seem to fit the definitions presented in this consultation as an IFRS 9 Financial Instrument but is not included in the list of OTC derivatives. It should be noted that the use of the term OTC (Over-the-Counter) does not give recognition to the new derivative products that are traded OE (On Exchange) like those now traded on 'exchange-like' swaps execution facilities (SEFs).

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, to the extent that other data elements (ODEs) are considered to complement these categorizations (curves, valuation prices, closing prices, holiday calendars, etc.) so that valuations and cash flows of products and contracts can be performed.

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.

There should be a common set of data elements (and standard data tags) for the widest range of assets now available in global markets. Data vendors such as Bloomberg and Thomson Reuters already have such identification systems that relate to associated data elements for each asset class. ISDA already has worked on a classification system for its proposed FpML product registry based on its FpML confirmation system. The EDM Council has been working on its FIBO nomenclature system for the widest range of financial assets. ISO's 20022 messaging standard, Fix Protocol Ltd., XBRL International, the Association of National Numbering Agencies (ANNA), Markit, the World Federation of Exchanges as representatives of exchange symbol issuers, et al, have all described segments of asset categories defined in their own proprietary protocols.

Commercial interests and self-interests of all these entities and organizations have always stood in the way of consolidating under one standard. Even standards organizations themselves have been more competitive than cooperative over the years. This leaves the global financial industry forever dealing with ever increasing mapping risk, reconciliation issues and escalating costs to maintain multiple identifiers and multiple asset classification systems (duplicate reference data). We have estimated this cost at \$100 billion annually across all the global and domestic SIFIs and SIFMUs (Systemically Important Financial Market Utilities).

FIG expected regulatory compulsion at the global level to compel cooperation around common standards if no such action was taken by the industry. A starting point is to coordinate all of the above at the FSB level to gain consensus under expectations of regulatory compulsion if no common standards are realized via consensus. If regulators cannot coordinate themselves toward compelling common standards then industry cannot be expected to do the same. Both regulators and industry members alike will benefit.

Question 4: Do you agree with this approach to the UPI's treatment of package trades? If not, please explain and suggest alternatives.

FIG agrees with the separation of the UPI as a classification system for products and the UTI as the vehicle for unitizing UPIs at the transaction and package level. FIG has commented on this in detail in the earlier UTI Consultation issued by IOSCO-CPMI.

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.

These are comprehensive and thorough. Some clarification, however, is needed in some of the principles:

Aggregation Principle - "An identifier that either explicitly or implicitly (through reference data) includes a well-articulated and precise classification hierarchy, so that data aggregation and analyses that does not require precise detail of the traded product are possible." FIG sees ways in which an explicit structured UPI code along with implicit methods (reference data accessible by use of the code) can work together to maximize data aggregation. This should be addressed in the IOSCO-CPMI UPI code consultation expected later this year.

Precision – "The level of distinctiveness and specificity could be determined separately according to the asset class." FIG assumes that this pertains to the use of the UTI to further refine the product into contract specific elements.

Adaptability – The versioning system discussed here would be best able to be accommodated within the UPI code construction when that consultation is made available for comment. It might be useful to IOSCO-CPMI to refer to FIGs prior submission to the ROC on their public consultation of LEI relationship data where we deal with the LEI as a code that has elements of versioning as when a set of LEIs is merged with another set of LEIs and takes on a new parent.

Ease of generation/acquisition/query – The terms used here "....easily check whether a classification already exists.... generate or acquire one in a timely manner" suggest a timeframe in which this should occur. FIG suggests that this timeframe be defined as real-time or near real-time given the reality of trading markets being real-time. Trading cannot be conducted without the underlying product descriptors. In stressed markets it is even more important to be able to query and set up a product on an internal trading system so that trades can be effected. FIG assumes that these UPIs and its classification system (reference data) will reside as an always available real-time distributed networked database that will be the primary source of the 'golden copy' of the UPI. However, as it is understood that IOSCO-CPMI will be issuing a further consultation on implementation of the UPI, FIG's expectation is that such discussion around timeliness and ease of query will be part of that consultation.

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.

See answers to Question 5 above.

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

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.” In the past this requirement of compatibility was met with the lowest common denominator of interfaces and normalized datasets, leading to suboptimal deployment of new technologies. For example we have had peer-to-peer real-time technologies available for a decade, deployed in many industries, but not used in finance. Instead the industry relies on batch file transfers, mapping of multiple proprietary codes and updating of centralized data warehouses across market infrastructure institutions with full day and more delays. This requirement of compatibility is a way of retaining legacy systems and mindsets, especially as new technologies promise startling advances in infrastructure reengineering. FIG would expect that this too would be dealt with in IOSCO-CPMI’s UPI implementation consultation later in the year.

Long-term viability – The classification system “...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.” It will only be understood if this principle will be constraining if such real-time network technologies that already exist in the factory and back offices of global commercial, industrial and retail firms are accepted in finance. The promise of radical change in finance as presented by such networks, the latest incarnation being the Blockchain distributed database, should be addressed in the implementation consultation noted above.

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.

Not Applicable

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

A single data element might not be sufficient to provide the audit trail for later, more specific classification. The mechanism to acquire/generate the UPI code will be a determinant in accessing an existing classification ‘template’. We encourage creation of a mechanism to self-generate a new template for a non-matching UPI code from an existing template. The degree of match can be organized logically by number of category matches of the new classification system. Additional data elements can be then added as “other” data elements (other 1, other 2, etc.). The “other” data elements can be better described as volume increases and a versioning release made. FIG has no opinion on volume caps.

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?

We believe product classifications require both the product being classified and the underlier. The two are inextricably linked by definition and by the need to calculate cash flows and valuations. Without these components the data would be useless for systemic risk analysis if it is to be done by regulators using the granular data elements. Alternatively, these valuations and cash flows can be done by CCPs and financial institutions themselves and balances provided to regulators (or through SDRs). The tradeoff is that cash flows and valuations might not be consistent using different underlier prices and curves, and using different calculation methods. This does, however, eliminate the need for underliers being needed for such use.

Question 11: Do the options presented above appear operationally feasible? If not, please explain why.

Yes, it is operationally feasible but requires coordination amongst a myriad of data vendors, numbering agencies and standards bodies. Regulatory compulsion will be necessary. Refer to our earlier remarks in the answer to Question 3.

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)?

See response to Question 10.

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.

Yes, such identifiers exist, although they are owned by commercial data vendors. One data vendor, Bloomberg has pledged its code to be open source and freely available. The details of what they retain as proprietary needs to be explored. ANNA is another creator of identifier codes, but their individual agency members have a varied set of commercial and open source business models. Whether there are others willing to offer up their codes for open source use needs to be explored. Any such use of formerly proprietary codes must allow for matching and deduping of all such identifiers offered by others so that a 'golden copy' can be obtained. Also, the terms of the open source licenses must include all defining data elements (reference data) that comprise each code. A further complication arises in maintenance of codes and the classification system if more than one provider is contributing. This approach should be explored in the later IOSCO-CPMI UPI implementation consultation.

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 response to Question 13.

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?

See response to Question 13.

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?

A conversion exercise would be required after establishing the UPI code construction and the classification system, first from existing databases operated by industry infrastructure entities, perhaps by contributing data vendors, thereafter as maintenance updates of those databases by individual counterparties. This should be done to establish a static baseline, not to be used in live operation until quality, scalability and security is assured.

The consequential issue is what underlying technology should be used, especially as the infrastructure community supporting each SDR is local, not global and the data vendors that might support the effort have centralized, not distributed local databases controlled locally.

Parallels exist with the early stages of the Global LEI System and its governance model, some parts of its implementation to be followed and some to learn from.

The LEI was structured, assigned and distributed across multiple local facility operators (LOUs - Local Operating Units). The codes were first issued in the US without a standard for the code construction nor a definition of reference data nor a standard format that all local operators could later follow. The LEIs are still not usable for data aggregation. Data quality is still an issue. Approaches for use of the LEI for data aggregation are still being considered. The federation of the data from disparate local databases is conducted using file transfer protocols in batch overnight mode. Each separate LOU operates its own maintenance and updating functions in timeframes of 'as soon as possible'.

The local databases of each LOU, while finally following a common file format after four years of issuing LEIs, are still not following any standard communications protocol to link their databases together in either a peer-to-peer network or using an indexing method to access multiple databases as in the Internet. This was and still is the recommendation made to and accepted by the FSB, still unfulfilled. Such standardization would provide a complete 'virtual' view without actually moving data between local sources to a central facility. Now, it is left for all the LOUs to send data each day to a centralized single database after which queries can be made and downloads requested.

There are issues of central database failure, timing of updates, accessing data as needed, mapping to internal systems, synchronization issues with updates at local vs. central vs. internal systems, and an inability to process changes from originating sources in real-time or providing changes in real-time.

A RFP is expected shortly to define the next phase of the GLEIS where, hopefully all of these issues will be resolved and a forward strategy and further systems build will be undertaken. The UPI should be included in these plans as they should operate in similar manner and in an integrated way with the LEI and the UTI.

To this end, a shared real-time distributed network of federated nodes representing registries of LEIs and UPIs along with their associated classification system and reference data would be a most desirable

outcome. This could be overseen by a governing body to set standards for the UPI as is the case for the LEI, and additionally set standards for UTI algorithms, for data sets representing OTC derivatives and other financial transactions, and for setting tagging conventions. This would, in effect be the global central reference data utility the industry has long sought albeit a virtual one.

The governing body of the GLEIS, the Regulatory Oversight Committee (ROC) of the FSB, made up of 50 nations' regulatory bodies, and the Global Legal Entity Identifier Foundation (GLEIF) made up of academics and practitioners that set standards and oversee the GLEIS is a model to follow, perhaps integrate into. Establishing separate global expert advisory boards, first for OTC derivatives, then other asset classes would extend the competency of the overseeing governing body.