



October 5, 2012

To: CPMI secretariat cpmi@bis.org and IOSCO secretariat uti@iosco.org

Subject: Harmonization of the Unique Transaction Identifier (UTI)
<http://www.bis.org/cpmi/publ/d131.pdf>

In responding to this consultation we are mindful of the desired objectives stated for the unique transaction identifier (UTI) in the consultation paper - that the UTI supports global aggregation of swaps transactions reported to trade repositories and minimizes instances of double-counting; that the generation techniques of the UTI be jurisdiction-neutral; and that the approach chosen does not preclude the UTI from having a wider applicability where this does not conflict with other legislation or rules.

In our response we are also mindful of existing best practices that have led to multiple interpretations of construction techniques for UTIs. However, such practices have evolved over time and led to markets, businesses, infrastructure institutions and regulators acting in their own areas of expertise and influence (the 'silo effect'). What is called for today is for all silos to work toward common purpose, that being the G20's call to enable regulators to detect the contagion of systemic risk building up in the global financial system.

The G20's mandate for detecting systemic risk (the regulators' overall objective for identification standards in general) starts with a plan to coordinate and harmonize the component parts of what is now the global swaps supply chain. Such a system respects sovereign jurisdictions' own regulations but demands participation at a minimum level of cooperation so that the weakest link in the global supply chain is observable.

This harmonization in swaps markets is, however, but a first step. What is desired is a cohesive global system to access and aggregate all financial transactions in all financial markets. Fortunately, we are in unprecedented times. Such capabilities exist to aggregate billions of transactions in real-time across globally disbursed data bases. The Internet and the World Wide Web are examples of such fundamental capabilities.

In the 1960s the Wall Street Paper Crisis precipitated industry recognition of computer technology to solve processing issues. The 1987 market collapse was a watershed in recognition of the interrelated cash and derivatives markets. The 2007-2008 credit crisis was an awakening of the global reach of both markets and the participants in those markets.

It became obvious that the interconnectivity of a global financial system driven by information technology and communications networks transmits crisis in real-time. Less obvious is that reporting systems, particularly those that are central to risk exposure transparency in stressed situations, and that support aggregation for such risk analysis, must too be as real-time as possible.

Guided by the G20's Financial Stability Board, sovereign and regional regulators passed legislation that would permit a global view of systemic risk through market participants conforming to identification standards and common data elements that make up financial transactions. In the swaps markets those transactions were to be recorded in trade repositories with common identities and unique transaction codes so they could be aggregated.

It is in the above context that the responses to the questions in the Attachment are framed. Our comments take a long view of the promises made by regulators for global financial reform in the aftermath of the financial crisis: transparency for regulators across all participants in all financial markets, especially in stress situations; and straight-through-processing for the global financial services industry.

These transformational initiatives are to be accomplished by first fixing the plumbing of the global financial system at its roots – through establishing a universal, unambiguous and unique identification system for all financial market participants and the instruments and contracts they manufacture, trade, own and process. The UTI is to be one element of such a system.

In responding to this consultation we are also guided by the overall characteristics proposed for the UTI, which we accept and, where appropriate further clarify in our responses. These include:

- neutrality (impartial to one or two sided reporting and indifferent to definition of swaps supply chain role),
- uniqueness (both for newly generated and archived transactions),
- consistency (same identifier even if trade is reported as two sides or in two different trade repositories or in two different jurisdictions),
- persistence (same UTI throughout its life cycle unless transforming events cause UTI to be archived and any resulting transformation has a new UTI),
- traceability (an audit trail of the UTI throughout its life cycle and in its transformation due to life cycle events),
- clarity (of structure and method, of who generated the UTI, and when it is to be generated, archived and/or transformed into a new UTI),
- intelligence (whether the UTI should contain potentially sensitive identifying information)
- backward compatibility (whether new and 'legacy UTIs' can be made interchangeable and fit for purpose in aggregating data), and
- horizontal compatibility (whether UTIs can be made compatible with or adaptable for other transaction identification needs for both audit trail purposes and aggregation of data).

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 experiences in finance spanning six decades. We believe we have contributed to the dialogue on financial reform in the past through bringing a unique understanding of the overlapping spheres of knowledge of risk management, data management and technology in the financial services industry. 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.

We are pleased to do so again in responding to this consultative paper in the attached.

We apologize for being late in our response but felt it better to fully absorb ESMA's just released (Sept 28th) Final Rules on MiFID II and MiFIR; the UK Financial Regulatory Authorities just released consultation on Investment funds; the Regulatory Oversight Committee's public consultation document on collecting data on direct and ultimate parents of legal entities in the Global LEI System (Sept. 7th) and their statement clarifying the conditions under which individuals acting in a business capacity are eligible to obtain LEIs (released Sept 30th). Each of these have relevance to our responses on UTIs and is referenced in the attached.

Respectfully submitted,

Allan D. Grody, President

A handwritten signature in blue ink, appearing to read "Allan D. Grody". The signature is fluid and cursive, with the first name "Allan" and last name "Grody" being clearly legible.

Summary and responses to the consultation questions

3.1 REPORTABLE TRANSACTION

Question 1: Are there jurisdictional differences about what is a reportable transaction that respondents believe will cause challenges for UTI generation? Please describe the differences and challenges.

There are many jurisdictional differences that define what a reportable transaction is but none that we can see preventing the generation of a universal, unique and unambiguous UTI. The most notable jurisdictional issue is the reporting to trade repositories of all derivatives transaction in the EU (including futures and commodities) vs. reporting only those that had previously been defined as OTC derivatives as in the US. A further issue is separate reporting methods to trade repositories in specific asset defined classes of OTC derivatives, such as securities based swaps in the multi-regulated OTC derivatives market in the US. We do, however, see major obstacles to using those UTIs, along with LEIs and potentially UPIs (when they are developed) for data aggregation for purposes of systemic risk analysis. This will be discussed later in this response.

A universal interest in observing and containing the contagion of systemic risk is the benchmark of all sovereign jurisdictions that participate in the global financial system (all do). There are jurisdictions that retain privacy prohibitions locally for generating/using identifiers. They can be satisfied by secure redaction/masking technology when appropriate. Trading techniques that require non-disclosure of a trading party (counterparty) likewise can be accommodated through appropriate secure methods and technologies.

In order to satisfy the requirements for the UTI and its use in data aggregation we recommend that all participants in all jurisdictions follow the same UTI structure and UTI generation algorithm(s), whether a manufacturer, agent, clearer, clearing member, central counterparty, execution venue, prime broker or counterparty in the supply chain of swaps transactions. A segmented, structured UTI code and a standard assignment protocol would appear to be the most viable code construction method for accommodating all necessary functions for the UTI as described in this consultation. (See section 4 for a further explanation of the structure and code creation method we are recommending).

Question 2: Are there further harmonization's (that could potentially be applied) to the rules that define which transactions are reportable that would reduce or eliminate the challenges around generating UTIs? In answering this question, please also describe the challenge(s) and identify the jurisdiction(s).

As long as every participant in the swaps supply chain follows the same structure and method for generating the UTI, along with a common code generation technique for components of it that make it globally unique (see later response to the structure and code creation we are recommending), then it would only remain to describe the different 'waterfalls' that determines which participant in the supply chain needs to generate the UTI. There is no circumstance that would cause conflict of UTI generation by each participant in the swaps supply chain if each jurisdiction sets out clear waterfall procedures and each subscribed to a definition of who the seller is, when two sided transactions are required, regardless if the transaction needs to be reported under two different regulator regimes. (ESMA's final MiFID II/MiFIR regulation issued September 28, 2015 sets out a waterfall arrangement for swaps and other derivatives using the definition of who is the seller across all swaps supply chain participants (see https://www.esma.europa.eu/system/files/2015-esma-1464_annex_i_-_draft_rts_and_its_on_mifid_ii_and_mifir.pdf).

To be most effective a global ‘identification agency’ that sets and manages standards and the UTI assignment algorithms should be considered. This is common in the Internet space where ICAAN sets such standards or in the commercial/retail supply chain space, where GS1 sets the barcode standards. In fact, there roles are not unlike the role of the Global LEI Foundation (GLEIF) which has been set up through the FSB to set standards and administer the legal entity identifier (LEI) code within the Global LEI System (GLEIS). Its Board composition consists of industry participants, representing financial firms, users of the LEI, experts and academics. It is overseen by a consortium of global regulators reporting to the FSB.

A LEI is intended to be issued for all financial market participants in all financial markets, not just for the participants in swaps markets. The UTI in fact, as this consultation makes clear, is intended for wider application as well, thus the GLEIF may be the appropriate identification agency to administer the UTI standard. Certainly the need for closer global cooperation on the UTIs initial design and on an on-going operational basis across all financial markets is desirable as can be seen through options described in this consultation which ties the LEI to the generation of the UTI. In fact, ISDA protocols for generating the UTI embraces the LEI in its construction technique – see www.UTIPrefix.org.

Work recently done by ESMA in its final rules on MiFID II/MiFIR ties the LEI to the UPI as well. The UPI adopted by ESMA is the American National Numbering Agency’s (ANNA’s) ISIN coding system, which is being expanded to include derivatives. Noting the organizers of this UTI consultation will move next to resolve the UPI issue for derivatives, ESMA should likewise be embraced in following along on this global cooperation theme and in considering a global identification agency.

Further, the UK’s Financial Conduct Authority this September authored a consultation on Investment Funds (see www.fca.org.uk/static/documents/consultation-papers/cp1527-ucits-v.pdf) wherein they describe a new identifier, the Product Reference Number, for sub-funds. This appears similar in use to the LEI that is associated with sub-funds. This activity as well should be considered to be embraced in cooperative activities as described above

3.2 UTI APPROACH FOR REPORTING OF “PACKAGE” TRANSACTION

Question 3: Do respondents agree with the proposed approach to UTI allocation for package transactions? Under what circumstances should the entire package have a single UTI?

Question 4: Are there other approaches to UTI allocation for package transactions that should be considered? If so, please describe.

Question 5: Which, if any, of the options for identifying and linking components of packages do you favor and why? In particular, please consider the extent to which the options achieve traceability?

Question 6: Do you see any difficulties in implementing any of the proposed options for identifying and linking components of packages? If so, please describe.

Question 7: Please identify and describe any alternative approaches for identifying and linking components of packages that should be considered, focusing in particular on any impact they would have on UTI generation.

A method to accommodate a package is to add a field as part of transaction reporting, the UTI “Package Code” in each instance of the separate UTIs comprising the package. We are also recommending that the package code be globally unique allowing for using it as a reference for all ‘packages’ i.e. block trades, positions, and non-standard packages (i.e. customized packages that can be identified as to its attributes, valuation methods, reference data, etc. via the unique package code).

We believe that many package trades can be standardized and assigned a UPI rather than a separate package code.

It is noted in the consultation that a package code is suggested as a suffix to the UTI. Noting that the first instance of a package trade may be organized first without a UTI for each individual trade not yet being available, it may be desirable to have the package code separate from the UTI.

To put the package code in context of the overall UTI construction, the UTI is suggested to be created with what is termed in the consultation, the ‘mint’ (a prefix to be added to the UTI that makes the entire UIT code unique, regardless of the remaining code construction technique. The mint is described by reference to using the LEI as the mint for generating the UTI.

Our recommendation is to use the LEI – a 20 character code for reporting purposes in its separate field and not to make it part of the UTI. The UTI can be constructed as a randomly chosen code, followed by a single character check digit within an overall fixed length of the UTI. The construction of the UTI and its component substructures is described in more detail later in this response (see section 4).

Incorporating the package code into the trade reporting process as a separate field is beneficial to the overall objective of data aggregation and systemic risk analysis. Incorporating the package code (when needed) and the UTI in each transaction report allows analysts to discover all packages, all components of packages, and all individual swaps transactions. Incorporating the LEI, the UTI, the package code, and the UPI (still awaiting definition) will allow transactions to be aggregated vertically up to its parent entity and horizontally across multiple trade repositories for overall risk exposure analysis.

3.3 THE IMPACT OF LIFECYCLE EVENTS ON THE UTI

Question 8: Is the proposed division between events that should and should not require a new UTI complete and correct (please refer to the proposal described in this section and the table in Section 8)? If not, please provide other cases and explain why they should or should not lead to a new UTI being required.

Question 9: Different jurisdictions may have different rules (including case law) defining which events would require a new UTI to be created. Are respondents aware of any such differences? What difficulties do these differences create in the creation of UTIs? If jurisdictions’ approaches to when a new UTI is Consultative report – Harmonization of the Unique Transaction Identifier 26 required cannot be harmonized, are there other steps that could be taken to avoid double-counting of transactions reported to different TRs?

Question 10: Do respondents agree with the analysis of linking related transactions through lifecycle events?

Question 11: Are there other cases to be considered in the analysis of linking related transactions through lifecycle events?

Question 12: Are there practical difficulties that would arise from putting a successor UTI on a transaction that had been terminated? Such difficulties could arise in the reporting, the processing by the TR or the analysis by the authorities.

Question 13: Can respondents suggest other ways of achieving links between reports subject to lifecycle events that meet the characteristic to provide an audit trail?

Question 14: Which of the proposed solutions to linking reports subject to lifecycle events do you favor? Do you see any difficulties in implementing any of the proposed solutions, and if so, what are they?

Question 15: Can respondents suggest UTI constructs that would achieve embedding the link information about lifecycle events into the UTI while still compliant with the authorities’ desired characteristics for the UTI?

In the consideration of persistence in the UTI throughout its lifetime this consultation recognizes life cycle circumstances appropriately, wherein a UTI is replaced with a new UTI, with the old UTI never again to be assigned. The old UTI is relegated to an audit trail for historical research purposes. These UTI ‘transformation’ circumstances are obvious when packages and blocks are allocated, and when novation, compression, and netting events transforms original transactions into next phase transactions. The original UTI stays with the original transaction while a new UTI is assigned to the newly created transaction. To preserve an audit trail at each such instance it would seem appropriate to add a data element to the transformed record, both the package code if it exists and the earlier generated individual UTI(s).

This obtains for life cycle circumstances of portfolio trades that are allocated to individual accounts while valued together; for compression and netting of trades; for novation of trades; and for packaged trades that are separately traded and cleared through different financial intermediaries and reported to different trade repositories, whether within a single regulatory jurisdiction or multiple jurisdictions.

It is less obvious when life cycle events such as corporate reorganizations affect change to the counterparty or reference entity. Here, if we use the LEI as the definitive identifier of counterparties and reference entities, and we should (ESMA’s MiFID II/MiFIR final rules does), there still remains ambiguity, first in how the LEI is recorded in the GLEIS system as having undergone a corporate reorganization, and second how the LEI will be handled as life cycle events in trade repositories affect changes to the UTI (and the UPI). All three identification codes are critical for data aggregation.

Corporate life cycle events can change the controlling parent of any LEI. An early assumption of the LEI was that the LEI code itself would be unchangeable. However, this statement always appeared with the exception of LEIs undergoing corporate reorganizations such as mergers or acquisitions or spin-offs.

In the GLEIS today a change in control of a legal entity (when referenced as a counterparty in a trade, or a reference entity in a credit derivative swap, or as an issuer of underlying securities) may require that the assigned LEIs (one or all) be flagged as “expired” because of a corporate action and a new LEI assigned for the reconstituted entity.

The registering legal entity must ‘promptly’ notify the LOU where the LEI is registered of a change affected by such a corporate event. The LOU is then to change the LEI reference data associated with each LEI to include an ‘expired’ code, further qualified by a reason code “corporate action”, and a further qualifying code ‘merged’ and, finally, a reference to the new LEI in the LEI registry of the LOU (there may be many LOUs maintaining multiple LEIs of a reorganized parent entity). When a new LOU will maintain any of the new LEIs, the LEIs are transferred at the request of the registering entity following a specific transfer protocol.

Thereafter, the GLEIF, which compiles all the separate LEI registries into a single file daily, sends out a change file of any and all changes each day to any recipient who requests a download. There the expired codes can be interrogated and any new LEI accessed. However, until it has been understood that a change has occurred, each LEI registry maintaining that code, as well as transactions in trade repositories, would still have the same code pointing to the same LEI, even though it is now part of some other parent entity or has been flagged as expired. In a later phase of the GLEIS development, each instance of its appearance in the hierarchies of the old and new LEIs (hierarchies are not yet part of the GLEIS) would also have to be updated.

Given that in ESMA’s final rules they do not require a transaction based look-up of the LEI prior to using it in transaction reporting, it would seem that older codes would be referenced for some

extended period of time. Given this reality, a more systematic near real-time approach needs to be designed by the GLEIF to notify all users of the GLEIS when such reorganization changes are taking place. ESMA notes that neither changes nor updates to the GLEIS are in real-time. A lot of issues regarding the use of the LEI would be resolved if it was. At a minimum dealing with such issues must be part of the life cycle protocols for the LEI in its companion relation and parallel process with the UTI.

For example, real-time updates could be used to update the counterparty or reference entity in each trade repository. Obviously coordinating that in some systematic, automated approach would be beneficial to both the GLEIS and trade repositories. It should be noted that multiple LEI registries and multiple trade repositories each contains a component of the data that needs to be aggregated to observe systemic risk. These components cannot be left to individual processes run by silo facilities operators, whether those that operate LEI registries or trade repositories. Its updating will be out of synch time-wise owing to: separate time-zones; unmatched transactions that will exist due to local manual processes for reconciliation; and because separate systems run by each trade repository and LOU operator must integrate changes across multiple LEI registries and multiple trade repositories without common protocols of operation or communication interfaces.

While global financial institutions deal with this every day, having to interface data and systems and updates across multiple silos of their geographically disbursed global organizations, they are not confronted by the different silos reporting through completely different management organizational structures. Such is the case represented in the myriad of infrastructure facilities operators of LEI registries and trade repositories. Global financial institutions have a single line of authority to top management and have coordinated a firm-wide strategy to conduct such activities.

There are twenty-five (25) trade repositories and thirty (30) LEI registries that exist today. All are housed within larger businesses– exchanges, clearing entities, data vendors, software companies, patent offices, statistical agencies, payment systems operators, national business registries, central banks, etc. They all have their own managements, independent strategies and incentive systems.

It would seem improbable that such disbursed and separately controlled data can be reconciled and organized effectively to observe systemic risk building up in derivatives markets, not even considering across the financial system, without a systems-wide application to record and update the same changes to each in something close to real-time. This is especially the case in stress situations when timely data aggregation across multiple trade repositories is crucial. Common standards of identification, common communications and application protocols, and an overall standards setting body would make this possible. This is how changes take place across conformed versions of data bases and software across the Internet.

3.4 RESPONSIBILITY FOR THE GENERATION OF THE UTI

Question 16: Are there additional issues that should be taken into account in considering the responsibility for generating UTIs?

Question 17: Would it be beneficial if the guidance did not provide for the harmonization of rules for the responsibility for UTI generation with respect to trades that are not cross-border? Would there be disadvantages to this approach? Does the analysis of this idea depend on which option is used for cross-border trades?

Question 18: Do respondents agree with the high-level assessment of the Option 1 proposal for the responsibility for generating UTIs? Please explain why or why not.

Question 19: Are there additional considerations relevant to the Option 1 proposal for the responsibility for generating UTIs? If so, please describe.

Question 20: Is a problem of enforceability created if the UTI was generated by an entity outside the jurisdiction of one of the counterparties?

Question 21: What are respondents' views on the proposed Option 1 hierarchy for the responsibility for generating UTIs? Are the steps necessary and sufficient? Are they defined well-enough? Are there alternative ways of achieving Step 6?

Question 22: Is it desirable to include the sort of flexibility represented by Steps 1–5? If so where in the hierarchy should the flexibility be provided?

Question 23: Can respondents provide an alternative set of UTI generation steps for the proposed option 1 hierarchy for the responsibility for generating UTIs that meet all of the characteristics set out in Section 2?

Question 24: Does the proposed Option 1 hierarchy for the responsibility for generating UTIs work across different reporting jurisdictions, particularly considering differences such as single-sided and double-sided reporting?

Question 25: Do respondents agree with the high-level assessment of the Option 2 proposal for the responsibility for generating UTIs? Please explain why or why not.

Question 26: What are respondents' views on the feasibility of the Option 2 proposal to the responsibility for generating UTIs? Are there particular issues for respondents that operate in more than one jurisdiction? How serious is the possible ambiguity in Option 2 and are there efficient and suitable workarounds?

Question 27: Are there additional considerations relevant to the Option 2 proposal for the responsibility for generating UTIs? If so, please describe.

Question 28: Is a problem of enforceability created if the UTI was generated by an entity outside the jurisdiction of one of the counterparties?

Question 29: What are respondents' views on the possible rules for the generation of UTIs that meet the compatibility approach of Option 2? Are there any additional rules that should be considered to meet the compatibility approach?

Question 30: Do respondents agree with the assessment of the Option 3 approach for the responsibility for generating UTIs?

Question 31: Are there particular challenges for authorities in monitoring compliance with any of the options for the responsibility for generating UTIs?

Question 32: Considering all three options presented for the responsibility for generating UTIs, do respondents see other suitable solutions meeting the characteristics set out in Section 2?

Question 33: Which option for the responsibility for generating UTIs do you regard as preferable? Why is this? What would be the disadvantages to you if your non-preferred option was chosen?

Where jurisdictions require anonymity of a counterparty or a beneficial owner, a redaction or hashing algorithm can be invoked upon a LEI or a group of LEIs, allowing the identity to remain in masked form. This masking/hashing can be under the control of the swaps market participant or delegated to a trusted third party (such as a certified or chartered audit/accounting firm – see “The Global Risk Regime – New Roles for Auditors” at <http://ssrn.com/abstract=2508399>). The identity could only to be uncovered through a reverse algorithm key kept by an approved global regulator (or a trusted third party).

To deal with the issue of who generates the UTI, whether for a two sided trade, a single sided trade, whether cross border under two separate reporting regimes, or under two separate UTI generation techniques in the same jurisdiction. It should be possible to use the just released ESMA MiFID II/MiFIR rules that define reporting by the seller. Such a regime is defined by ESMA with great clarity as to who is the seller and under what conditions the seller is defined throughout the swaps supply chain. This consultation itself makes reference to the possibility of use of such a seller
Financial InterGroup Holdings Ltd, 169 East 69th Street – 18th floor, New York, NY 10021 917 414 3608

designation for determining who generates the UTI. This consultation also notes that the Harmonization Group at a later time will be focused on issuing an additional consultation paper on Data Elements where this may be taken up.

While the consultation states that not all counterparties have an LEI, they should as it is a most important barrier for preventing nefarious actors into the global financial supply chain. All regulators have the power to prohibit a financial market participant from engaging in financial transactions without first identifying itself. The global means of identifying oneself as stated by the Financial Stability Board and agreed to by nearly seventy Regulators Oversight Committee member in forty sovereign jurisdictions, is through obtaining a LEI. This is a simple proposition that not only can be enforced by regulators but by financial institutions themselves who have a Know-your-Customer responsibility to each other, as well as to regulators in this interconnected global financial system.

To ease the burden of registering a LEI, for those not required yet by regulation or are not compelled by their agent/counterparty to do so, a specially identified LOU (designated with its own four digit unique LOU prefix) should be assigned for purposes of generating unique LEI codes in these cases. In this situation the counterparty having the LEI would be designated as the sponsor and his unique LEI, remove the existing LEI's four digit LOU prefix and two check digits. The special LOU prefix would be substituted and affixed and a new check digit calculated. The entire LEI of the second (undisclosed) counterparty would thus be represented by the counterparty generating the UTI. The sponsoring counterparty could be identified in the LEI registry along with any internal description it may use to mask the identity of its non-conforming counterparty, placed in the name and address reference data submitted with the registration.

The special LOU prefix for non-participating legal entities can be the source of regulatory scrutiny for potential nefarious actors or as a means to spur non-conforming sovereign jurisdictions to become sponsors of LEI registries. A recent ROC public consultation (referenced later in this response) asks for just such means to spur non-compliant jurisdictions and legal entities to get a LEI.

In fact ESMA's recently issued final rules on MiFID II/MiFIR champions the LEI for use in trade and transaction reporting. However, while adopting the transaction identifier as reported to trade repositories for derivatives, it believes that each generator of a trade identifier should be allowed to develop its construction technique by itself. This assumes the manufacturer of the UTI by use of its LEI will be identified along with the UTI, thus making the combination LEI + UTI unique, although by itself the UTI will not be unique. We see a great value in the UTI being globally unique, independent of the LEI, and refer you to our later response to questions on UTI code construction (see section 4).

It should not be difficult to coordinate a conforming approach to UTI construction, not only between ESMA and IOSCO/CPMI, but through the FSB for all transactions that flow through the global financial system. Perhaps the proper forum to coordinate this would be the ROC which to date has coordinated the creation of the LEI as a universal standard and where the LEI now seems to be playing such a critical role in transaction identification.

3.5 TIMING OF UTI GENERATION

Question 34: Is the assessment about timing for UTI generation correct? Are there examples of timing requirements from authorities that are incompatible with other elements of the proposed UTI generation approach? If so, please describe them.

It is noted in the consultation that acquiring a LEI may require a counterparty to inquire of a second counterparty who has not yet acquired one to do so. Further the consultation notes that doing this at the late stage of trade execution time delays the process of acquiring an LEI as LEIs are assigned by external facility operators (local operating units – LOUs – 30 of them exist at present). The Investment Company Institute in its response to the SEC on the inclusion of the LEI for its updated reporting noted this problem as well (see ICI, SEC comment letter, August 11, 2015, www.ici.org/pdf/15_ici_sec_reporting_modernization_ltr.pdf, at pages 55-56. Their members, at times need to rely on third parties before they can get a LEI for their counterparties or collateral agents.

FIG had recognized this problem long ago in responding to consultations by the FSB and later the Regulatory Oversight Committee (ROC) that oversees the GLEIF and the GLEIS. That issue, along with still unresolved issues related to parent entities of LEIs, can be solved by a LOU first assigning a unique LEI prefix to a registering parent, which in turn is then used as a prefix to self-assign and register any and all LEIs, as the suffix portion of the LEI. The timing of registration is completely under control of the registrant.

There is a public document available, recently updated that is authored by principals of Financial InterGroup, “Risk, Data and the Barcodes of Finance” at <http://ssrn.com/abstract=2544356> that explains this approach in detail. The ROC has authored a very recent public consultation to further the development of the GLEIS, specifically as to how to record a registering parent in the GLEIS (see http://www.leiroc.org/publications/gls/lou_20150907-1.pdf). We have suggested to them to revisit these recommendations made in the past by us and by IOSCO itself (see CPSS & IOSCO, Report on OTC derivatives data reporting and aggregation requirements Final Report, Annex 3, January 2012, <http://www.bis.org/cpmi/publ/d100.pdf> at footnote 111 page 65). Other segments of the global economy do identification this way, assigning their own identifiers (see CEO Magazine, Legacy Main Street Solution Proposed for Wall Street, May 17, 2011, <http://chiefexecutive.net/legacy-main-street-solution-proposed-for-wall-street>).

4.1 PROPOSED OVERALL APPROACH TO UTI STRUCTURE AND FORMAT

Question 35: Do respondents agree with the proposed overall approach to UTI structure and format? If not, please suggest alternatives that meet the characteristics?

To summarize:

The UTI should be a stand-alone construction, each globally unique and independent of the LEI, the package code and, eventually the UPI. All identifiers noted here must be part of the transaction reporting record to trade repositories. See details in next section.

4.2 POSSIBLE COMPONENTS OF THE UTI STRUCTURE

Question 36: Which of these possible UTI components, if any, are important and why? Is it necessary for the UTI to have any of these components?

Question 37: Would it be useful or necessary to include check digit(s) in the UTI? Why?

“Intelligence” in the UTI

Question 38: Which components, if any, should be included in the UTI? Which components, if any, should be used in UTI construction but not appear in the UTI? In answering this question, consider both the components listed in the table above or suggest other components as

necessary. Please explain how the particular components contribute towards meeting the characteristics set out in Section 2.

Question 39: Should the UTI be solely a dummy code, i.e. a value that contains no embedded intelligence? Why or why not? Assuming that other data elements regarding a transaction (e.g. the identification of the counterparties, the date and time of execution etc.) will be captured by the report to the TR, is it necessary to reflect such elements in the UTI?

Question 40: Should the details of how to construct the ID value be defined and, if so, what approach (e.g. UUID) should be used?

Question 41: How important will it be to be able to distinguish “new” UTIs from “legacy” UTIs? Assuming that the trade report includes the date and time of execution, would it be necessary to embed the indication in the UTI itself or should the indication be explicit in a separate field?

Question 42: Is it necessary or practical for the UTI to include a Mint field? If so, is the use of the LEI appropriate for the Mint field in the UTI? Are there other values that could be considered for this? What issues would arise in this case? How should cases where the Mint entity doesn’t have an LEI be handled?

Question 43: What issues would arise from using the suffix UTI component to link the reports of components of a package?

Question 44: Will the inclusion or not of certain components set out above in the UTI require changes to respondents’ systems or other systems on which you are dependent? How much change?

Question 45: Are there any issues in having an “intelligent” UTI? What are respondents’ views on the potential solutions to these issues? Are there alternative ways of dealing with this?

Question 46: Can respondents suggest algorithms that would achieve the Option 3 approach to generating the UTI?

The Rationale for the Recommended UTI Code Construction

The UTI identifies a swaps transaction (and potentially any other financial transaction) at the most granular level of detail. It, therefore, has the potential with associated data elements and other unique identifiers to be used directly in performing systemic risk analysis.

If the UTI is accompanied by standard data elements that define the attributes and values of the trade, this being the immediate next activity to be accomplished as noted in this consultation, then it is a complete record of a trade. When accompanied in all trade reporting by a means to access the pairing (packaging) of trades (the package code); the supply chain participants in the trade (suggested here by recognizing the LEI); and the attributes of standardized trades/common trading strategies (embodied eventually in the UPI), then all necessary components for aggregating data horizontally (across all trade repositories) and vertically (through the counterparty chain of ownership or control as currently being addressed by the ROC) is present.

The Package Code

The package code would be set to zero if it is not a package trade. If it is a package trade the same ‘package code’ will be generated globally and administered locally to appear in each transaction of the package. The package code should be globally unique, and unique through the supply chain at each repackaging and assignment (allocation, novation, compression) of a new UTI.

The package code should be generated simply, with no intelligence, using alphabetic characters and digits as a randomly chosen code containing only capital alphabetic characters and digits to distinguish it from the UTI code construction described below

These codes can be accessed in real-time to be disbursed to each supply chain participant when needed for immediate use or distributed in advance as a block of codes for later use. These codes could be administered by the “independent agency” noted before and overseen by LOUs that implement the GLEIS locally.

Note the availability of this package code does not wait on availability of each LOU to validate the request and then generate the code as the case of waiting on validation of a LEI. This was a problem brought up in the consultation and the reason stated for not wanting outside entities involved, with specific reference to LOUs as an example.

Reporting LEI [LOU+00+AnAnAnAnAnAn+cd]

The LEI is not to be used as a “mint” for the UTI, but to be a separate reportable field of the trade report containing the UTI. The LEI will exist along with the UTI in all circumstances of trade reporting. The LEI is globally unique as it has a randomly chosen prefix (the LOU prefix) fronting the remainder of the code construction. This is the LEI’s “mint”. The LEI allows the entire trade reporting record to be uniquely traceable to its creator (via access to its associated reference data at LOUs).

It should be noted that there is no intelligence in the LEI, that is to say there is no way to determine the legal entity identified through display of the code itself. The code itself cannot be parsed to determine meaning. Rather meaning can only be determined by computer means wherein the code can be looked up elsewhere to identify the legal entity. This conforms to the definition of non-intelligence in the LEI as accepted by the FSB, codified in the ROC charter and left to be implemented by the GLEIF in the GLEIS.

UTI

The UTI is generated independently of the LEI and the package code. We recommend the UTI be created with a standard algorithm that generates universally unique codes – the Universally Unique Identifier (UUID). Noting that this consultation made reference to the fact that they knew of no one using the UUID to generate UTIs, this should not be of concern. There are uses of UUIDs for many identification needs, including for identifying legal entities uniquely. There are open source means to quickly implement the UUID – see examples at www.uuidgenerator.net.

There are benefits to using a UUID as noted below. The format for a UUID should be presented with hyphens delineating five (5) subsections i.e. [f47ac10b-58cc-4372-a567-0e02b2c3d479] of the 32 alphabetic lower case characters/digits generated so that each segment can be compared, making it easier for humans when reconciliation, communicating verbally or transcription is required. A UUID using a standard random number generator is suggested over ones that generate UUIDs exclusively with machine addresses and time stamping. This construction allows for 3.4×10^{38} codes. There would be a one in two chance of a duplicate code being produced for 1 billion UUIDs produced every second for the next 100 years.

This UTI code thus constructed, when observed in each financial transaction, allows for: a complete audit trail throughout the supply chain and life cycle of the transaction; the direct

aggregation of multiple swaps in a single package; matching of each side of a two sided single swap; and through other fields in the trade reporting record permits all swaps to be united with its counterparty. The LEI in conjunction with the UTI (and the UPI) will allow for the aggregation of transaction data up to its parent entity. This is one of the routes toward creating the capability for systemic risk analysis. A public consultation on setting parent LEIs in the GLEIS is currently underway by the ROC to create this capability in the GLEIS.

It should be noted that randomly chosen numbers are different than randomly generated numbers. While they can be identical in appearance (based upon the characters/digits allowed) the former produces no duplicates, the later does. In general, random code generation requires a control mechanism, to assure no randomly generated or chosen duplicate is produced. Randomly chosen codes require a gatekeeper to keep the entire list of codes, randomly choosing the next one, then eliminating it from the entire list so that it cannot be randomly chosen again. Randomly generated codes need to be checked against all previously generated codes in order to determine if a duplicate has been generated.

Another approach is to generate a code that is so improbable that another duplicate can be produced. This is the case with UUID codes. There are various methods to generate the UUID, one of which is to randomly generate a portion of the code, which results in a code where the probability of a duplicate is infinitesimally small. Its drawback is that it is a long code, 32 characters represented in 128 bits. However, if specific transactions have to be researched it can be displayed in segments, separated by hyphens so that is more human readable or retainable in human memory as describe above.

Random codes can be generated locally. This is done with LEI codes in the GLEIS by first appending a randomly chosen four digit globally unique LOU prefix. Those prefixes are distributed to each LOU at their start-up. They must be checked off of a list of possible codes as each one is randomly chosen and assigned. This is done by the GLEIF. Since it is four digits, the list has only 9,999 code possibilities. The LEI in conjunction with the UTI reported together makes each transaction record unique. The UTI being itself globally unique can be used to trace back to a LEI if one is incorrect or missing in the transaction. This later point is important as a reconciliation tool when a single counterparty with a UTI common to both sides of the transaction reports the trade, the main way of matching the two sides is through the UTI alone not the LEI.

CD

We believe a check digit is required as UTI codes may need to be transcribed or otherwise dealt with by humans as when reconciling mismatches, transferring UTI code lists, noting incorrect codes without reference to another source for determining correctness, etc. Check digits detect common transcription and recordings errors.

4.3 FORMAT (ALLOWABLE CHARACTERS AND LENGTH)

Question 47: What are respondents' views on the lengths of the various potential components of the UTI (assuming that they are included directly in the UTI) and hence the length of the overall UTI?

Question 48: Should the UTI be case-sensitive (allowing for upper- and lower-case characters to be regarded as distinct)? Should the UTI avoid using certain alphanumeric characters that resemble others? For example, do you think it advisable for the UTI system to avoid using the digits "0" and "1" so as to avoid confusion with the letters "O" and "I" (or vice versa)?

Question 49: Should other characters be allowed in the UTI beyond those proposed? If so, which ones and why do you recommend them? Could all jurisdictions and languages readily accommodate these characters?

Question 50: Should separators between different component parts of the UTI be used? Why or why not? If so, which separators and why do you recommend them?

Question 51: Should the length of UTI be of fixed or should only the maximum length be indicated?

A factor in considering code creation, especially in the financial industry, is its appearance on screens and in reports. Computers can be effective in matching long strings of codes, but if they do not match or a specific transaction has to be researched, human readability or retention becomes critical. Also, consideration needs to be given to using alphabetic characters versus digits or restricting use of some characters. In the Anglo-Saxon alphabet a number of characters can be easily mistaken for a digit or another character when transcribed by hand – O vs. 0, Q vs. O, 2 vs. Z, I vs. 1 vs. L are examples.

For the package code, by using Alphabetic capital characters and digits it will distinguish it from lower case characters and digits used in the UUID. The package code should exclude potential lookalikes (minimizing the alphabetic characters to 20 by eliminating I, L, O, Q S, Z), that allows the number of codes to be $x e 30^h$ where x is the number of spaces allowed for the length of the code e.g. 8 spaces would allow for 656,100,000,000 package codes. If more is desired more spaces can be allocated.

The overall length of the UTI code itself would be 32 lower case alphabetic characters/digits plus two check digits. We note that in including the LEI as a key component in trade reporting, we have previously made recommendations in comments to consultations by the FSB and the ROC to shorten the LEI. The shortened LEI can be as small as 10 characters, not the 20 characters currently used for pre-LEIs in the interim GLEIS. There are too many extraneous components – the LOU taking up four spaces (LOUs are already identified with their own LEI), the two reserve spaces and two check digits (only one will suffice in a shorted code space to accomplish the same transcription error detection).

The final LEI can consist of as little as ten (10) characters, a 6 character parent registrant prefix (729 million codes), and 4 character code specific to each sub legal entity of the parent (810,000 sub codes), and a single check digit that can be left off when storing the code. In this scenario the LEI code would contain a unique prefix for the registering parent in each LEI, eliminating the LOU prefix for setting LEI global uniqueness. This was the only reason stated for the LOU prefix being placed into the LEI once the decision was taken by the FSB to allow multiple facilities operators appointed by regulators to assign LEI codes.

We had always argued that registrants themselves should be assigning their own codes. IOSCO in a consultation referred to earlier in this response offered that as an option for constructing the LEI. The method to shorten the LEI and use it for data aggregation is in the public record. The report “Final Report on Global Identification Standards of Counterparties and Other Financial Market Participants” can be accessed at <http://ssrn.com/abstract=2016874> at pages 28-30 and 36-39.

5. IMPLEMENTATION

Question 52: Do respondents agree with the proposed implementation approach? Is there a risk that a newly generated UTI would have the same value as an existing UTI as a result of these

proposals? Is it possible to estimate the size of this risk? What problems do respondents see regarding “legacy” UTIs under this approach?

The consultation asks about methods of synchronizing the ‘new’ UTI with earlier, multiple version of the UTI, referred to as ‘legacy UTIs’. It would seem improbable to do this effectively as billions of transactions have already accumulated in trade repositories with no means to match them to each other. Common identifiers and data elements are either non-existent or corrupted by lack of uniformity.

A definitive cutoff date for use of the legacy UTIs should be determined after the final rules on global UTIs (the end product of this consultation and its follow on Data Elements consultation) and UPIs, are agreed to. The final rules and systems of the LEI initiative must be determined well before swaps transactions are reported through the swaps supply chain again, so as to expect a better outcome. To this later point there is a public consultation circulating for comment on further work on the LEI and a soon to be released RFP by the GLEIF on work on the GLEIS. These activities, like those of ESMA, need to be coordinated at the global level.

Archived swaps data in trade repositories can then be offloaded to a central data storage warehouse and, perhaps over time, meaningful analysis can be performed to complement the newly accumulated data. This can be subject of an RFP to appropriate Big Data analytic firms.

In our opinion, leaving each trade repository to identify and aggregate trade details through inconsistent legacy UTIs and the non-standard data elements associated with them would again lead to uncoordinated approaches and failed implementations.

Looking beyond implementing the UTI code construction, the UTI code itself is a part player in the overall system for assigning, managing and accessing UTIs. Understanding their use is as important as the design of the UTI itself. Their first use is in aggregating swaps transactions in multiple trade repositories. However, the use of the UTI in swaps transaction reporting should be looked at as a test of the practicality of observing systemic risk throughout the global financial system.

Certainly the technology of today, high speed Internet based technologies deployed in so many industries outside of finance, and pursued aggressively for revenue generation at the front end of the financial industry today should be pursued as well in the middle and back offices of financial firms.

Deploying these new technologies in operational areas (the focus of the UTI) was always disadvantaged by the underfunding of cost centers, favoring instead the funding of revenue producing areas. This forced legacy systems to be extended beyond their reasonable life, and created a legacy mindset that accepted less funding for new technologies. This, even though the benefits to the industry of embarking on this identification journey was to be found in pursuing straight-through-processing for risk mitigation and operational cost reduction.

This global UTI initiative, when coupled with the UPI initiatives already taken up by ESMA and soon by this Harmonization Group, and the LEI initiative also entering its final consultation phase, presents a unique opportunity to reengineer financial institutions while risk adjusting the financial system.

See “Final Report on Global Identification Standards of Counterparties and Other Financial Market Participants”, <http://ssrn.com/abstract=2016874> at pages 39-42 on the use of Internet technology for the GLEIS as an example of what is practicable and possible for the UTI (and UPI as well).

8. TABLE OF LIFECYCLE EVENTS THAT COULD AFFECT THE UTI

Question 53: Are the descriptions of lifecycle events complete and sufficiently defined? In particular, are there differences between novations and assignments that are not captured in the table and which are significant for UTI generation? Are the conclusions as to when a new UTI is required correct?

Yes, with the caveat that the UTI should only have ascribed to it an ability to uniquely, unambiguously and universally identify a single swaps transaction. The UTI as we have defined in our response, cannot work to aggregate data without the LEI; the package code; the UPI code (still undefined); the common definition of data elements pertaining to the trade details that accompany those codes (soon to be addressed by the Harmonization Group); and, finally, the ability of the LEI to be used to aggregate data up to its parent entity (currently being addressed by the ROC in a public consultation).

As sub-components of the unique identification of a swaps transaction, the LEI and UPI in particular are subject to change over the life cycle. It seems critical that the circumstances of their changes are documented as well and subject to a public consultation.