Bloomberg L.P. 731 Lexington Ave New York, NY 10022 Tel +1 212 318 2000 bloomberg.com

Financial Stability Board

Submitted via email

Re: Governance arrangements for the unique product identifier (UPI)
Second consultation document - Response

May 2018

Bloomberg, L.P.'s[1] Open Symbology Group (Bloomberg) thanks the Financial Stability Board for the opportunity to respond to the Second Consultation Document (Consultation) on the proposed governance arrangements for the Unique Product Identifier (UPI) published in April 2018.

As we have stated in previous responses, Bloomberg supports the initiative for the UPI, which will become a key identifier globally, and can potentially deliver important operational benefits for the industry and regulatory authorities alike, dependent upon implementation methodology and management. It is important that optimum arrangements for the governance of the UPI are agreed if the potential benefits of the identifier are to be fully realised and confidence in the system maximised.

The primary purpose of the UPI will be to provide a tool to uniquely identify OTC derivative products included in derivatives transactions submitted to Trade Repositories (TRs). Given that nomenclature differs across various segments of the industry, it is important to clarify that any UPI should be seen as acting as an aggregation point for a wider set of specific financial contracts that may be traded. We would hope that the UPI can provide operational benefits for the industry over and above this primary purpose. The Governance adopted will need to complement and build upon the final UPI technical guidance issued by CPMI-IOSCO in September 2017.

In general we think that the Consultation focuses on the key issues of governance which need to be resolved. It is crucial that lessons are learned from the imposition of identifiers in other regulatory contexts if the UPI is to command the confidence of the industry. Please find our answers to the specific Consultation questions below.

[1] Bloomberg, L.P., the global business and financial information and news leader, gives influential decision makers a critical edge by connecting them to a dynamic network of information, people and ideas. The company's strength – delivering data, news and analytics through innovative technology, quickly and accurately – is at the core of the Bloomberg Professional service, which provides real time financial information to more than 325,000 subscribers globally. The comments set forth herein are based on BLP's deep expertise in transaction reporting, data management, and analytics.

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Bloomberg Responses to consultation questions

Question 1: ***Do you agree a public-private partnership model such as the one sketched above should be adopted for the UPI Governance Arrangements?***

Given that the desired final outcome of the UPI development is adoption of the identifier by regulatory authorities into the reporting rules of their jurisdictions, it is essential that the public sector retains a stake in the governance arrangements for the UPI. The adopted UPI governance arrangements should have clear industry support for the delivery and governance model, adequate safeguards surrounding the availability of the UPI, and access to the associated data. Therefore we would support a form of public-private partnership in respect of the UPI governance arrangements which would provide assurance around these points.

The public-private arrangements suggested in the consultation appear similar in some respects to the governance arrangements in place for the LEI. Clearly, although there are some similarities, the LEI scheme is very different, with a much larger universe of potential identifiers than the UPI, as well as different types of data challenges. The focus on UPI governance should be biased towards keeping the governance structure light but effective..

The proposed Unique Identifiers Regulatory Oversight Committee (UIROC) would seem a sensible high level oversight body, which we presume is intended to resemble the ROC for the LEI. It is noted that the UIROC would have representation only from 'relevant Authorities'. We think this approach is correct, and in keeping with the light but effective theme mentioned above. It would be helpful to get further clarity about the scope of the proposed UIROC, particularly in terms of how it plans to interact with other levels of governance and the service providers. Presumably the UIROC would not itself require specific funding and support.

The proposed Industry Representation Group (IRG) is a welcome inclusion. In our view this needs to combine an inclusive approach, with a transparent and open structure capable of protecting user interests, and ensuring a fair and efficient UPI system. It would be good if the IRG (or however this body is eventually formally constituted) could leverage and continue the positive cooperation created during the UTI and UPI Consultative process. Most especially the in-person meetings held by CPMI-IOSCO's Harmonization Group and the FSB GUUG. We note that these meetings were open forums, allowing for wide participation and input, in contrast to a closed 'nominated' or 'elected' group of industry representatives.

In general, we believe there should be a concept of a single point of access for data (referred to as 'RDL Operator'). This should be defined as a function, primarily, as opposed to being referred to as an 'entity operating the single UPI Reference Data Library', as this precludes modern technical delivery models, as discussed below. It would be better to envision a UPI Reference Data Library, but not proscribe a specific unique entity (i.e. "RDL Operator"), as this mixes the functional goal with a specific implementation. It is possible, for example, that the RDL function could be combined with the IRG, assuming this is set up appropriately. This would then ensure a simplified structure that in one entity combines governance as well as assurance concerning access to the data.

Question 2: ***Do you believe any governance functions in Annex 4 should be performed by a different body? If so, which ones and why?***

In practical terms, unlike LEI, any number of different requests could result in the same UPI. The goal of governance at this point would be to ensure that any provider(s) ensure a consistent return; either of an existing UPI or the generation of a new UPI if required. Governance would also need to ensure that any provider(s) operates with full transparency in regards to process and cost, and with appropriate safeguards surrounding the wider availability of the UPI and associated data.

The evaluation of the roles as presented creates some challenges. Primarily, there is a mixing of defining a function/need, within the definition of a suggested entity. This lack of clarity is highlighted by the table of assigned functionality (Annex 4), where the same functional role spans multiple entities. Some of this is a result of trying to fully define a governance structure before the implementation model is decided upon. It would have more clarity if the required functional needs were defined separately. For example - the entity defined as "RDL Operator" appears more to be a manifestation of ensuring a number of key functional requirements;

- Single point of access for the community to any UPI data (technical delivery)
- Ensuring consistency/uniformity/uniqueness among UPI data that may be created due to distributed creation (i.e. multi-provider) (operational definition with technical delivery)
- Ensure the community does not need to have multiple agreements (implementation)

The final implementation model chosen e.g. multi or single provider will have a significant bearing on the operational solutions required. In a multi-provider mode, the ability to implement cooperation between providers would be a requirement for UPI service providers. Delivering a distributed dataset that can be accessed in full from any single point is a fairly simple technical deliverable that would not necessarily require the creation of separate, likely duplicative, infrastructure as proposed for the RDL Operator. The goal should be to provide the functionality of a single UPI Reference Data Library that has solid data quality, is non-invasive in regards to interaction with current workflows, and minimizes costs.

There are multiple ways, technically, that this could be delivered, so that to the community and user base it appears and acts as a single physical unique thing - but is does not necessarily need to physically and legally be a single entity and physically distinct database and infrastructure. Creating a mirror infrastructure just for the point of governance is likely an unnecessary additional cost and complication.

Indeed, the requirement for coordination between providers to ensure that duplication does not occur, and that data quality is maintained at a high level, would necessitate a close working relationship between multiple providers. As such, any presumed function of the 'RDL Operator' in such circumstances becomes purely one of governance (not provision of physical infrastructure), as the technical delivery is a function of the UPI service providers themselves. Such governance would sit

most effectively with IRG/UIROC structure, with any providers being responsible to that structure.

This would simplify governance, transparency and user access while minimizing cost and complexity.

In the case of a single UPI Provider, the RDL functions may need to include technical delivery of the single point of entry for data. As mentioned above there is no reason, if properly constituted, that the IRG (or IRG/UIROC partnership) should not take ownership here, to ensure that the single UPI Provider does not hold monopoly power over generated data. In a single provider model, a separate physical infrastructure may be necessary for many reasons (ranging from governance to recovery and transferability), which should be factored into any cost discussions, as well as added technical complexity and questions on ability of a single "RDL Operator" to perform such a mirror function.

We note, however, that the intent of most recent regulation has been to encourage or otherwise introduce competition into markets. As such, endorsement of a single UPI Provider would be counter to this mission.

So to summarise, in a multi-provider system the technical implementation can ensure that the UPI Reference Data Library is provided by the UPI service providers, subject to governance from the IRG/UIROC partnership. In the single provider scenario (which we don't recommend - see answers to later questions) it would be necessary for the reference data library to be provided separately from the single UPI service provider.

Q3. ***How should any Governance Arrangements for the UPI System be funded?***

Clarity is required on which functions require funding. Ideally such functions should be kept to a minimum, and some of the suggestions we have made in answer to questions 1 and 2 above will serve to keep the governance structure lighter than it might otherwise be. We would expect that the system be self-funding and/or potentially largely voluntary in nature.

Specifically the IRG (which can also be responsible for the functions proscribed to the RDL - particularly in the single UPI provider model - to safeguard data access), could be largely voluntary, and leverage industry expertise in a similar manner to the industry discussions for the development of the UPI systems.

Any funding requirements should be kept to a minimum but, potentially, could be recouped from UPI service providers (i.e. from providing hosting meeting space to other functionality). We would suggest, however, that an elaborate licensing system relating to the UPI and core data be avoided in the system. Such systems cause unnecessary complexity and are the very opposite of the open data concept which we believe should remain at the heart of the UPI system.

Leveraging existing forums and industry bodies could help lessen the funding requirements for any one of the oversight responsibilities, as well. A cooperative of existing bodies could provide a core basis for the voluntary and cooperative approach which we would like to see.

There is a presumption that there is a need for a formal funding requirement for all aspects of governance, which we challenge in light of existing forums and structures that could be leveraged effectively.

Q4. ***Do you consider the Governance Arrangements described in section 3 above are appropriate and adapted to provide oversight on fees and cost recovery?***

We suggest that the IRG concept is strengthened and formalized, in regards to how the public-private partnership with any UIROC would ultimately function. Clearly the ultimate oversight will rest with the UIROC, however at the day to day level there needs to be a mechanism in place to review the operation of the system and to ensure that costs and service levels are reasonable and transparent. This is where a more structured form for the IRG can add value.

The division of governance functions provides some structure to implement oversight on costs and fees. How this occurs, however, will be highly dependent upon the questions raised in section 4 regarding allowable services and functionality, in regards to fee models and cost recovery.

Q5. ***Please provide any specific suggestions to promote adherence to the cost and open access criteria, including suggestions relating to escalation procedures, including complaint handling bodies and processes.***

While Annex 4 does not discuss management and oversight of costs, we do note that in 4.1 and 4.2, there is discussion of independent review and public disclosures, which we support.

Ideally the IRG entity (if it is an entity) should provide the initial place to which enforcement of the rules of the system would be directed. It is to be expected that the UIROC together with the relevant individual NCAs would also play a role (but as we said in answer to Q1 above, additional clarity would be welcomed on this).

One note within 4.1 is on the concept of tiers for pricing. We have stated previously that we believe the provision of tiers of pricing, especially when tied to various level of access to the system and data, introduces unintended barriers for market participants, and could lead to an uneven playing field.

The creation of tiers of service, allowing for "faster" access to data, or to data provided in larger bulk forms, has the potential to disadvantage some potential users, even when there is not a question of timeliness or latency involved. We would therefore doubt the wisdom of any system supported only by a few 'high paying' users (or 'power users'), who have priority access to data and services.

We believe more attention needs to be paid to the actual functionality required by any UPI Service Provider(s). This applies specifically to interaction with any facilities as a part of the normal trade workflow. How any UPI Service provider integrates into the existing and future workflows of the industry is an important aspect of expected costs and how access to that data can be affected by different costing models. Other key issues include; access criteria, need for escalation and timeliness of problem resolutions, together with status as a critical market infrastructure (or not).

Specific answers will be needed to such questions as:

- At what point in a trade workflow would a UPI be expected to be known?
- Should the UPI service be queried for every trade/transaction executed to verify a UPI?
- Is the UPI Service expected to keep an inventory and mapping of all contracts or trades (depending on granularity and expectations of authorities) submitted, and the resulting UPI?
- Is the UPI Service expected to manage data quality; i.e. establish/adopt rules regarding allowable data combinations? For example, a current issue in the OTC ISIN regime is the lack of alignment with industry practice that Interest Rate Swaps should not have a delivery type of 'physical', resulting in what the industry considers 'duplicate' ISINs, where only delivery types of 'cash' and 'physical' differentiate the issued identifiers.
- Can user firms 'self-assign' already issued UPI's based on the associated metadata? (Ostensibly, this would vastly reduce the requirements placed upon any UPI Service Provider(s), but could potentially result in bad UPI-to-Contract (or Trade) associations, such as has been seen with CFI assignment across the listed and OTC markets.

Specific to the question at hand, to promote adherence to cost and open access criteria, there is not a single solution, and any methodology will be highly dependent upon the final model chosen (multi or single, and the power of governing bodies), as well as the expected functionality, as alluded to in the questions posed above.

For example, in a multi-provider model, it would be expected that competition should help drive towards a more true cost recovery model. This has been seen to positive effect within the LEI system, but is not necessarily perfected. The re-accreditation process in the LEI process also helps in prevent and/or reveal bad behavior, but may become onerous. Audit power by any IRG/UIROC would also provide a tool to investigate any bad behavior

However, even all these tools in a single provider model, there may not be any real recourse that can be taken. As has been seen historically in the case of single providers in a non-competitive environment, there is a default towards lack of action in lieu of promises or whitewashing of issues - even in the face of obvious problems and vocal complaints.

In the end, management of costs must follow the model chosen, as well as the functional interaction any service has within the larger ecosystem.

In regards to open access, as we mention in previous answers, our view is that this is best safeguarded by avoiding any complicated license arrangements for what should be an open UPI and core metadata set. We therefore reject the concept of tiered or special access pricing in connection with the UPI or its core data set. As discussed elsewhere UPI providers should be able to leverage existing capabilities and services in their provision of UPI services, but it is essential that such other services are offered entirely separately.

Q6. ***If you believe that start-up costs should be fully recovered by a UPI Service Provider, how should they be allocated between earlier- and later-arriving subscribers? For example, over how many years should the start-up costs be amortised?***

It may not be necessary for suppliers to fully recover start-up costs. This is something which should be assessed as part of the selection process for potential suppliers. If potential suppliers can leverage existing capabilities to provide a sustainable UPI service, and in so doing keep startup costs to a minimum or negligible level, then this should be factored into the assessment process.

Assuming, however, some degree of upfront cost recovery, then this should be conducted over a sensible period of time so as not to excessively front load the costs to earlier users. It is suggested that the amortization period could be 5 years.

A significant factor here would be multiple versus single suppliers. In a multiple supplier situation competition may help, as providers seek to minimize the upfront cost passed on to users.

In the event of one single supplier, which seeks to re-coup all upfront costs, it would be necessary for the amortization process (if one is needed) to be carefully calibrated to avoid excessive front loading, whilst providing a sensible maximum period, which we suggest to be five years.

Q7. ***If revenues for a year have exceeded or fallen short of anticipated costs for that year, should the UPI Service Provider have a mechanism for rebating or recovering the excess, either during that year or at a later time?***

A revenue overshoot should produce an end of year rebate.

A shortfall should be carried by the UPI supplier, but the reasons for the shortfall would need to be clearly understood by the oversight mechanism.

It is expected a rebate would be followed by a cost decrease in following years, while a shortfall would not automatically indicate an increase for future years.

Q8. ***Do you believe that a UPI Service Provider should be allowed to cross-subsidise the provision of UPI Services with revenues from other business lines, either with regard to start-up costs or on an ongoing basis? Why or why not?***

The exact function any UPI Service Provider will perform needs to be scoped in the light of the expected daily workflow. There are a number of different scenarios.

1. UPI provider creates a list of UPI codes based on a prescribed set of metadata and makes this available. This code list, and the associated metadata, can then be used by user firms to self-determine what UPI should be assigned to any particular OTC contract or OTC transaction. Where there is no existing UPI , a request facility would be available to obtain a new UPI.
2. UPI provider operates a real-time query facility that accepts data input from user firms and returns the corresponding UPI, or generates and returns a new UPI if none exist. User firms

would be expected to utilize the query facility to determine UPI association, and not self-determine by contract or transaction.

3. The primary initial user-base may be expected to be derivatives facilities, chiefly SEFS, MTFs and exchanges. For standardized contracts, this population would be quickly created and fairly static over time. The secondary user-base would then be for any bilateral contracts that would need to verify what UPI should be assigned based on any underlying variables that differ from a standardized structure.

Unless Authorities expect firms to verify a UPI association for every transaction, the medium to long term function of any UPI Provider would likely be limited to bilaterally agreed contracts that do not have a precursor existence.

As such, a model that cross-subsidizes from other businesses may provide for the most stable model that ensures ongoing-service, and accounts for a diminishing rate of requests for UPIs over time.

The only case where cross-subsidization may not be appropriate is where a firm already holds a monopoly position for a regulatory-required function, and where those fees are expected to be also levied on a cost-recovery basis. Accounting and charging of any cost-recovery fees should be clearly broken out and separately supported. The risk is that firms may be unintentionally subsidizing a function they are not mandated to support.

Otherwise, the ability to leverage existing capabilities in order to keep costs to users to a minimum should be considered as part of the process for the initial selection of the provider or providers.

What should not be permitted is any suggestion that entities needing UPIs should be forced to buy other products or services in order to keep the costs of the UPI down. Clearly it would be necessary for the authorities to satisfy themselves that any permitted cross-subsidization is sustainable in the longer term.

Q9. ***Should a UPI Service Provider be permitted to provide value-added products and services (i.e., products and services that incorporate UPI data but are not required by the UPI Technical Guidance)?***

Yes this should be permitted, however with the clear caveat that these services should not be required to be leveraged in order for the industry to access UPIs and UPI data. Here it is critical to explicitly scope what the functionality and data any UPI Service Provider is to offer, and how it is expected to be used in normal workflow, to ensure that any additional services are not tied in such a way that takes advantage.

For example, providing a UPI as a code with attached metadata as the required service may not be useful in the face of a service deemed 'value-add' that ties that UPI to existing standardized contracts previously requested.

Q10. ***What is your evaluation of the risks of restrictive practices limiting open access, e.g. through the bundling of UPI Services with value-added services? How and by whom could such practices be prevented or restricted?***

There is such a risk, and it has been encountered before in terms of access to standards-based securities identifiers currently and in the past.

Typically, it is not the primary data, such as the UPI, that is the subject of the restriction, but instead supporting data necessary for the proper use or understanding of the primary data. There are cases where certain tactics effectively neutralize the benefits of open data, especially when there is embedded data or embedded intelligence in underlying data that requires some further decoding to actually use. Other licensing methods limit open data use for non-commercial activities, circumventing the primary purpose (i.e. commercial activities) the data is meant for.

Clearly effective governance will go a long way to minimize this risk, but another important safeguard would be to have more than one issuer of UPIs. Restrictive practices are most likely to occur when only one supplier is in the market.

In regard to the bundling question, specifically, as we discussed in Q9, there should always be a clear open 'UPI Service' that is available without restrictions and has a specifically defined scope. This should not preclude offering of value-add services separately. But the core service, as defined, should always remain available, open, and proactively supported.

Q11. ***Should a UPI Service Provider that engages in other business activity be required to "ring fence" its UPI functions? If so, what sort of corporate, legal, and/or accounting mechanisms would be necessary to effect such an arrangement?***

Any UPI service provider needs to satisfy Authorities that it has the resources available to provide the required level of service for the UPI scheme. It should be able to leverage existing resources (where relevant) in order to do this. So there is no need to ring fence the UPI function, but service provision needs to be independent of any other services the UPI provider may be offering.

Q12. ***Should ownership of any intellectual property created by a UPI Service Provider be assigned to a third party in order to maintain and ensure continuation of open access in the event that the provider were to become insolvent or subject to administration or voluntarily withdraw? If so, how should that third party be structured?***

This refers back to the multi-service provider model providing a more robust solution. If technically implemented correctly, any one node on the jointly shared central reference database would not pose a risk. There will also be less of a concern about Intellectual Property issues in a multi-provider system, than where a single provider owns and creates everything. Although if there are remaining IP issues, then possibly the IRG-UIROC can play a role here even if the Reference Data Library is maintained between the UPI providers.

In a single-provider system, third party assignment would seem a sensible proposal to ensure continuing open access. Here the earlier suggestion we made that the IRG-UIROC partnership be constituted more formally would be relevant (such as a trust or foundation). If the IRG also held the Reference Data Library in these circumstances, then it would be easier for any IP to be lodged there. This is a better arrangement than a single UPI provider also being the holder of the RDL, as you are then left with the issue of what happens to the library if the UPI provider has to withdraw. Keeping the data library separate from a single UPI provider negates this dilemma, and the inclusion of the library within the IRG provides a suitable repository for the resolution of any IP questions as well

Further, the Consultation refers to various Open Data / Open Source initiatives offered in previous consultation. We would like to reiterate our support for the MIT Open Source license[2], which is used for over 250 instances globally, and is one of the top 8 Open Source Initiative (OSI) approved licenses[3].

The International Open Data Charter referenced is not, in itself a license, but a set of principles in the form of a Charter that participants join to state their aspirations to conform to.

What is considered IP tied to the UPI should also be clearly defined. For example, innovation in the space of a technical delivery may not affect access to, or creation of, UPI, as needed in the market. But creation of data by a UPI Service provider that is only possible due to its role as Service Provider would logically be UPI-related data (as opposed to data that could be created by any entity post UPI-creation and dissemination). These principles need to be clearly defined by the future established public-private partnership.

Q13. ***Should access to a vendor-proprietary identifier in the UPI Reference Data Library be limited to only those market participants who have a corresponding license agreement with the respective vendor? If so, how should that underlying asset or index be identified for non-licensees?***

There are markets that rely on proprietary identifiers, and other proprietary creations that will not come under the auspice of standardization. Different methodologies are taken in creating proprietary identifiers, and those that use embedded intelligence typically have the most restrictions - since value-added data is conveyed through the code itself.

A related concern is where an underlier may be a private instrument.

Our preference would be to avoid the need for any license arrangements for the UPI and the associated metadata set. Should users wish to avail themselves of other services or data sets from vendors then of course license restrictions could apply as needed.

If there are 3rd party identifiers, the right to distribute the identifier itself (as opposed to any associated data, such as constituents or other proprietary value-add data that would require some other service - such as corporate action details) should be sought. If the vendor will not allow that use under any

[2] https://opensource.org/licenses/MIT
[3] https://opensource.org/licenses

reasonable terms, the identifier should not be used, as the management of data rights is a complex and potentially costly effort which is not core to the mission of any UPI Service Provider(s).

Q14. ***Do you believe that wherever possible elements within the Reference Data Library should use established International Data Standards?***

Recognition needs to be made of established industry standards and best practices. The assumption that standards from one particular body versus another are in every situation the optimum choice should be avoided. Even in cases where there is a presumption that a standard covers all possible situations or values, there still will be exceptions. Therefore restricting usage to a single solution can create coverage gaps or opaqueness in exactly the areas that Authorities wish to have more transparency and clarity.

For example, ISO has well established standards in currencies and countries. However, as the standards are written, offshore currencies and new inventions such as cryptocurrencies are not yet covered. This should not prevent the use of established international standards (such as ISO standards), but it also speaks to allowing other standards or industry best practices that may close the gaps - as opposed to creating non-industry practices as 'workarounds' to account for these gaps.

It is becoming more important to accept an ecosystem of standards that interoperate and complement each other as opposed to attempting to mandate single solutions that may satisfy a large portion of the universe, but leave a significant minority disenfranchised. Such single-answer approaches are susceptible to poor data quality, stagnation, and misuse over time.

Houstoun, Milne and Parboteeach, in the "Preliminary Report on Standards in Global Financial Markets" (Updated May 2015), state "In contrast to the electrical engineering and technology industries, there is no professional body that supports standards and standards development."[4]

Much can be learned from the technology realm, where multiple programming languages, and multiple computer platforms work together. Interoperability standards like the Common Object Request Broker Architecture (CORBA)[5] and methodologies like Inter-Language Unification (ILU)[6] facilitate the deployment of technical systems across diverse platforms using different operating systems, programming languages, and infrastructure. A similar approach should be considered for financial services standards.

Q15. ***Do you agree that, for similar reasons as were traversed in the UTI Consultation, the ISO is the most appropriate body to undertake the functions of an International Standardisation Body for the UPI?***

[4] Houstoun, Kevin and Milne, Alistair and Parboteeah, Paul, Preliminary Report on Standards in Global Financial Markets (May 11, 2015). Available at SSRN: https://ssrn.com/abstract=2531210 or http://dx.doi.org/10.2139/ssrn.2531210
[5] CORBA is a standard of the Object Management Group (OMG.org)
[6] ILU was developed as an Open Source project at Xerox PARC

ISO is a valid option, but is not the only choice here. As we have mentioned before the Object Management Group is another possible choice. In addition we refer to the alternative approaches highlighted in our answer to Q14.

In regards to the UPI, the question is also what is expected to be standardized. The governance and implementation would not fall within the purview of any ISO standard, other than potential assignment of a Maintenance Agency to enable revisions necessitated by new products not currently envisioned. Therefore, it would mostly be a formality of encoding whatever technical guidance is implemented by UPI Service Provider(s) chosen, post-implementation.

In the above referenced report, Houstoun, Milne and Parboteeach suggest the need for a "Global standards Forum" that would help coordinated activities. An indication of support from Authorities towards this end would serve a number of purposes.

- Eliminate an existing level of 'standards shopping' where various standards organizations are leveraged for legitimacy not rigor
- Address issues such as those raised specifically by this question; i.e. official endorsement by Authorities of one standard organization over others and potential negative impact to beneficial activities of those other organizations
- Encourage stronger coordination between standards organizations in a formal manner, as opposed to sometimes competitive behaviors, sometimes informal ad-hoc cooperation seen over the years
- Allows flexibility, increases timeliness to market, and clarity of scope for when it is appropriate to use one standard over another

Q16. ***Do you think it desirable that all elements in the UPI Reference Data Library be subject to ISO standards?***

Our responses to questions 13 through 15 explore many points concerning standards, and the role of standards and standards organizations in the financial industry. Regardless of the maturity (or not) of a sector of the financial industry, there will not always be ISO standards for particular data elements. This should not be seen as a failing of ISO, other standards organizations, or the market, but an ongoing reality that can likely be better managed, but not completely resolved.

The derivatives markets are characterized by rapid change. Fringe cases are highly important especially from a regulatory reporting and transparency perspective, and therefore there flexibility is needed that isn't always necessarily present in ISO standards. As mentioned above, the issue of currencies presents a simple case. "Common sense" would resolve that the ISO currency code standard would be sufficient, but there are non-ISO solutions for offshore currencies and cryptocurrencies that exist and are in common, industry best practice, use.

There are cases where certain definitions or newly created items do not fit within an ISO standard. A default position to purely ISO standards may actually negatively impact standardization by first attempting to find a 'home' for something new that should exist independently, in its own right (i.e. the current debate over cryptocurrencies; currency, commodity or something else entirely?).

Generally our conclusion is that, existing open industry standards and best practices should be leveraged. In many cases ISO standards will be appropriate in this context, however allowance should be made for instances where this is not the case, or where a more appropriate non-ISO standard exists, even if there is a corresponding ISO standard.

Appropriate recognition should be accorded to industry developed methodologies and standards that may not in every instance be an existing ISO standard. This judgement should be based on merit and actual effective usage in the industry.

To the point raised in Q15 concerning a "Global Standards Forum," different solutions and standards require different treatment. As such, different organizations may be more appropriate in one case over another. For example, Houstoun, Milne and Parboteeach provide that "Identification schema need to be tailored to practical need, for example it is important to distinguish data fundamentals that cannot change during the life of a contract – such as identification of counterparty through the LEI – from investigative identifiers that may provide a convenient summary of the characteristics of what is being identified (such the UPI), and are always subject to improvement and refinement."[7]

Further, our reference to CORBA and IDL illustrates that there is an alternative path focusing on interoperability points and solutions. Such a path enables standards to work together more effectively, remaining flexible to handle new developments effectively while reducing the burden of unnecessary changes to legacy systems and operational procedures.

For example, the underlying rate types maintained by ISDA are more robust than those in ISO 20022. It is not logical to replicate all these codes in ISO 20022, with a need to maintain them in both places through updates and changes, as opposed to using an ontological tool like FIBO to do that work.

Q17. ***Do you agree with the FSB's preliminary conclusions about codelists and related topics in section 5.3 above?***

We would only clarify that there may be identifiers that are not proprietary, but not ISO, such as FIGI (Financial Instrument Global Identifier). Many non-ISO global standards such as FIGI, as well as proprietary identifiers, exist to some extent within the ISO20022 External Code list, and this may be a potential model to follow.

However, there will remain cases where some code sets exist outside, and therefore the FSB's suggestion of identifying the code and source of value would be appropriate. The mechanism for doing so still would need to be identified.

In general we think the approach correct, subject to the caveat from our answer to Q16 that even if there is an ISO standard it may not be in accordance with industry best practice and usage. In such circumstances the approach needs to be more flexible, but clearly keeping in mind the need to ensure that the reference data is as interoperable as possible.

[7] Pg 58, "Preliminary Report on Standards in Global Financial Markets"

The remaining concern is where there are multiple code sets. Regardless of single or multi-provider, there will need to be some effort to enable interoperability between such code sets, enabling existing long established best practices by not mandating use of one code over another, even in the presence of an existing ISO standard.

Q18. ***If you believe that the UPI data can and should be used for purposes other than solely regulatory reporting, describe in detail and provide specific examples of any such additional purposes.***

The UPI system would ideally satisfy needs in the industry beyond regulatory reporting. Ideally the UPI should be capable of linkage to an identification framework which can be used throughout the trade lifecycle, including pre-trade, trade and post-trade processing activities. It should also be capable of being a contributor to managing data quality in portfolio reconciliation and valuation across market participants.

Returning to regulatory compliance, we would also like to see adoption of the UPI as appropriate beyond trade reporting to cover other regulatory reporting requirements. To this end we would encourage national regulators to recognize the endorsed UPI in their reporting standards at the earliest opportunity, in lieu of any current solutions that do not provide the functionality a UPI would.

Most crucially the UPI should be viewed in the larger context of OTC derivatives trading activity and the final choice of UPI supplier or suppliers should reflect the capability of that supplier to provide UPI services which most easily enable integration of the UPI into analogous activities that go above and beyond trade reporting obligations.

This is where firms involved in the actual trade and settlement lifecycle would likely be good candidates for UPI Service Providers, as it would ease integration into normal workflow, as opposed to some outside utility that may re-enforce the UPI remaining a data-request for the pure purpose of satisfying a mandated data requirement.

Q19. ***Considering the pros and cons of each of the above-mentioned models (Single UPI Service Provider model or Competitive model), what would in your view be the most suitable? Please provide detailed reasoning.***

There is an inherent bias in the assumed simplicity of the single provider model that may make it more seemingly attractive. One can assume that a single provider avoids the need for any sort of coordination between providers, reduces the risk of errors/duplication and simplifies the production of the reference database.

This model also negates any difficulty in finding and assessing the suitability of multiple providers.

In our view, however, a competing provider scheme should not be ruled out. We do not expect that there would be many such providers, particularly given the relatively small number of UPI codes required.

The competing provider model has worked well in the LEI scheme, with costs continually being reduced for users, and the sophistication and robustness of the system increasing. Given the regulatory mandate in many markets now for the LEI, the ease of availability and choice of supplier has very obviously eased the process of adoption and compliance.

The track record where only one regulatory compliant codes issuer may be used (e.g. for OTC Derivative ISINs in MiFID II reporting) has proven less satisfactory, in both technical and governance terms. The danger of one UPI supplier is that this unsatisfactory situation becomes replicated elsewhere, and further entrenched. In the search for a UPI Service Provider - either one or many - these issues should be incorporated as lessons learned.

Clearly there will need to be mechanisms in place to coordinate issuance. Such mechanisms are perfectly possible, and indeed given the fairly low volume of UPI codes expected (compared to something like the LEI scheme) this coordination should not present an insuperable problem. As said above we would expect that the number of providers would be low, but we think it important that those who may wish to offer services in only one asset class be able to do so (whilst others with different capabilities may offer services across asset class).

A competing provider solution would be a significant enabler for entities with expertise in a particular asset class to offer services leveraging their area of expertise.

Specifically towards governance, a competitive model provides a better system of checks and balances, especially when one goal is to limit the bureaucracy of any overall governance organization.

Q20. ***Do you believe that there should be a single UPI Reference Data Library if multiple UPI Service Providers coexist in the UPI System? Why or why not?***

We would suggest that there be a central UPI reference library and, as suggested earlier, this could be lodged with the IRG entity. Any UPI service provider should also replicate this library in their own operations, and as mentioned previously, in the case of multiple providers, there are simple technological solutions which allow for co-ownership of datasets.

The point we wish to re-enforce is that a single UPI Reference Data Library can exist as a concept, virtually, without a corresponding physical single infrastructure or entity.

Q21. ***What would be the value added in having competing UPI Service Providers if there was a single entity centrally managing the UPI Reference Data Library?***

The value of competing providers is outlined in our answer to Q19. A centrally managed UPI reference data library would probably be desirable whether there was one UPI provider or more than one. The alternative would be to have a single provider which also holds the reference library. This however could provide additional governance challenges and make the resolution of UPI related IP issues more

difficult. Therefore regardless of the number of provider the reference data library would be best governed by a separate body from the UPI providers.

Specific day-to-day management of a UPI Reference Data Library, however, depends on mode of implementation. In the case of a single provider, there should be separate management and infrastructure to resolve governance, IP, monopoly and other issues as previously discussed.

As also discussed previously, a shared deployment across multiple providers would obviate the need for a single managing entity and separate infrastructure. Governance, however, would still be required and separate.

Q22. ***How could the applicable technical principles and governance criteria mentioned in section 6.1 be followed if there were multiple UPI Service Providers?***

We do not envisage that any competing UPI provider arrangement should lead to insuperable problems in terms of technical compliance or governance. Indeed a competing scheme reduces some governance concerns, whereby a choice of suppliers can produce a level of self-policing regarding commercial terms and service levels. Competing providers enables the system to potentially leverage specialized providers experience in particular asset classes, reduces or eliminates single points of failure and overall makes the system more robust, especially for any future required enhancements or needs. The price is additional complexity, but given that any arrangement of competing providers will very likely be quite limited, we believe the coordination required to make this work can be accomplished.

Clearly though, with multiple suppliers, a uniform accreditation procedure will be needed, along with ongoing monitoring from the IRG and the UIROC. However such monitoring would be needed even with one supplier, and the level of scrutiny would need to be particularly intense in a single provider circumstance.

Failure to put in place a governance system in which national regulators and the industry can have confidence, will undoubtedly inhibit the take-up of the UPI in national regulations. The correct lessons need to be learned from both the LEI and the MiFID II experience if this confidence is to be maximized.

Bloomberg L.P. thanks the Financial Stability Board once again for the opportunity to respond to the second UPI governance consultation, and we look forward to further engagement on this important initiative.

Best regards,

Richard C. Robinson
120 Park Avenue
New York, NY 10017
rrobinson57@bloomberg.net

Richard Young
3 Queen Victoria Street
London EC4N 4TQ
ryoung94@bloomberg.net