GS1 Response to

CPSS and IOSCO

To the Committee:

It is our sincere pleasure to have both been asked and to respond to your consultative report on OTC derivatives data reporting and aggregation requirements.

As background we have been sharing our experience and vision for globally unique identification and reference with financial institutions, financial market utilities, trade associations, data vendors and software companies, legislators, government bodies, standards organizations, auditors and corporate issuers, both here in the US and globally. We have earlier this year shared our thoughts in documents submitted to the US Treasuryôs Office of Financial Research - US Treasuryôs Office of Financial Research (OFR) on the Legal Entity Identifier**,** the CFTC - Commodity Futures Trading Commission (CFTC) on the Unique Counterparty Identifier**,** the SEC - Securities and Exchange Commission (SEC) on the Unique Identification Code, and in response to the SIFMA-led Statement of Interest.

In this document, we focus on responding to the committeeôs solicitation for comments concerning principles, implementation, and governance of a global Legal Entity Identifier. In addition, GS1 has extensive experience in product classification for the industry sectors it serves. While we do not discuss product classification in this response, we would be happy to share our views on this topic with CPSS and IOSCO if there is interest.

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On behalf of GS1

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A Response to CPSS and IOSCO

Introduction

GS1 would like to thank CPSS and IOSCO for the opportunity to respond to the consultative report on OTC derivatives data reporting and aggregation requirements. Among the topics identified in the cover note for which feedback is solicited, GS1 US would like to respond to the questions regarding support for development and implementation of an international Legal Entity Identifier (LEI). Our response herein is based on earlier submissions made in 2011 by GS1 in response to requests for comment from the US Treasury Office of Financial Research, the Securities Exchange Commission, and the Commodity Futures Trading Commission, as well as GS1ôs response to the SIFMA-led process initiated earlier this year.

The financial industry seeks a globally unique identifier for legal entities, along with a global system for capturing, storing, and disseminating reference data attributes associated with legal entity identifiers. GS1 has extensive experience in developing and deploying systems of this kind. GS1 is a global, neutral, not-for-profit, voluntary industry consensus association, that has developed standards in two areas relevant to the financial industryôs quest for an LEI. Firstly, GS1 has developed standards for globally unique identification of a variety of business objects, including identifiers for legal entities, products, documents, and others. Secondly, GS1 has developed standards for reference data associated with these identifiers, and the collection and dissemination of this reference data through GS1ôs Global Data Synchronization Network (GDSN). These standards exist today and are implemented on a large scale: GS1 identifiers are used in 150 countries by over 1.5 million companies, and there are over 7.7 million identifiers registered in the Global Data Synchronization Network, each accompanied by thousands of reference data attributes.

GS1ôs experience with identifiers and reference data is primarily for consumer product identification and reference data, though GS1ôs current systems do include legal entity identification and associated reference data We believe, however, that the challenges faced in creating an international system of financial legal entity identification and reference data are substantively similar to the challenges GS1 faced in creating an international system of consumer product identification and reference data. The GS1 experience, we believe, is highly illuminating for the financial LEI problem, especially as regards issues of scale, catering to local custom and concerns of national sovereignty, and governance.

In this spirit, GS1 offers the following comments in response to the CPSS/IOSCO consultative report with two aims: (a) to provide an overview of GS1ôs system for globally unique identification and reference data as it currently is used to serve the needs of consumer product data; and (b) to reflect on what this experience implies for the financial industryôs goal of

creating a global system for financial legal entity identification and reference data. While GS1 readily acknowledges that it has less experience in serving the financial services industry than do many other organizations offering comment, we do believe that our experience in creating a global system of unique identification and reference data that is governed through an industry-based consensus process is unique, and that it has much to offer the financial industry both in lessons learned and in existing components that may be adopted and applied by the financial industry. We stand ready to assist the financial industry in whatever way will be most helpful.

About GS1

GS1 is a global voluntary consensus standards body with long experience in issuing identification and managing reference data in an international setting. GS1ôs standards for product identification and electronic commerce are the most widely accepted standards of their kind in the world. All consumers are familiar with GS1ôs Global Trade Item Number (known as the Universal Product Code or U.P.C. in North America, and the European Article Numbering code or EAN elsewhere in the world) which appears on the labels of consumer products in 150 countries around the world. Less visible to consumers, but equally important, are GS1ôs identifiers for legal entity identification (the GLN) which are an integral part of electronic commerce messaging between trading partners around the world GS1.

Since its founding nearly 40 years ago, GS1 has grown to include 1.5 million end user organizations in 150 countries who participate in GS1 through GS1ôs 110 country-based Member Organizations. Through the work of its end user members, GS1 sets standards for identification of physical products, legal entities, and electronic messaging that are used in twenty-five different segments of the global economy. GS1 has issued over 40 million product identifiers and 1.5 million legal entity identifiers to date. GS1ôs Global Data Synchronization Network today manages reference data for 7.7 million product identifiers across 132 countries, with thousands of attributes for each product. The underlying standards are developed by the participating end user member companies, with GS1 providing facilitation of the process. GS1 and its country-based Member Organizations employ 2200 people around the globe.

Global Identification and Reference Data for Consumer Products – GS1 Experience

GS1 believes that while the immediate business drivers that are leading the financial industry to consider LEIs and reference data are quite different than those that led the consumer products industry to create GS1ôs standards for product identification and reference data, the underlying forces are actually quite similar. These fundamental forces are twofold:

- *Straight-through processing* The desire to streamline the transaction processing that occurs between different companies that interact in a supply chain, with the goal of achieving

seamless processing and elimination of manual intervention ñstraight throughò from the beginning of the chain to the end across many intermediate actors.

- *Traceability* The desire to bring together electronic business records from disparate parts of a supply chain in order to understand business issues stemming from the interconnectedness of the parties, and to take action in response to that understanding.

In the financial sector, the requirement for straight-through processing manifests itself in the immediate business need to make back-office processing of financial transactions such as trades more efficient and less reliant on manual adjustments during settlement. The requirement for traceability manifests itself in the business need for regulators and others to understand ownership relationships in order to assess systemic risk.

Both straight-through processing and traceability require alignment of data that individual parties use in their computer systems and electronic messaging. Alignment is required because straight-through processing and traceability by definition rely upon bringing together data records from multiple partiesô information systems. In particular, a common system of identification must be used so that two systems will identify the same thing (legal entity, product, location, etc) in the same way, and there must be a way to synchronize reference data between parties so that all parties have a common view of the descriptive attributes associated with any given identifier. To the extent that the supply chain spans national boundaries, this requirement must be satisfied globally. This general requirement for data alignment exists whether the data of interest is concerned with legal entities, products, physical locations, or any other business entity, and most of the high-level technical issues are the same regardless of industry sector.

The starting point for envisioning a system of global identification and reference data management is to consider a centralized solution: a single organization that is responsible for assigning globally unique identifiers to the entities of interest, and for maintaining a suitable database of reference data attributes associated with these identifiers. It is easy to see how concerns about uniqueness and consistency are addressed in a centralized system.

GS1ôs experience in developing global identification and reference data for consumer products, however, has revealed a number of practical difficulties that a centralized model faces:

- Having a single, centralized worldwide database does not scale adequately to meet worldwide demand, especially as real-time requirements for access and updating emerge as end usersô use of the reference data system evolve in sophistication.

- In an international setting, many countries are reluctant (or adamantly opposed) to accept a system where information critical to the operation of that countryôs markets is held by some registration organization located outside of that country. Such countries see this as an issue of national sovereignty, and want registration for their own companies to be handled by a

registration authority that is located in their country, subject to that countryôs own laws and regulations. To the extent that such registries must synchronize with others around the world to achieve global visibility, it still must be possible for one countryôs registry to continue to function (at least as regards data originating in that country) regardless of the state of foreign relations with other countries.

- Maintaining reference data is a highly complex task requiring considerable skill and expertise. A centralized model does not provide for competition, whereas competition is highly desirable in order to foster continuous innovation and improving cost effectiveness. Competition also helps to foster the emergence of value-added services that can be provided around the maintenance of and access to reference data.

- A centralized model does not effectively leverage the capabilities of existing companies and organizations that have expertise in maintaining reference data.

For these reasons, GS1 arrived at a *federated* model, both for the allocation of globally unique identifiers and for the registration and dissemination of financial reference data, in which there is one governance structure but many registration authorities worldwide. Over several decades of worldwide operation, this federated model has allowed GS1ôs identification and reference data system to scale to encompass operations in over 132 countries worldwide.

GS1ôs federated model for identification and reference data operates on the following principles:

- Allocation of globally unique identifiers and registration of reference data is carried out under a federated model of allocation and registration authorities, but under a single governance model.

- An end user company may choose any allocation or registration authority operating within its country of business (possibly subject to local regulation, as described below). The end user company interacts with its chosen provider.

- All allocation and registration authorities synchronize with each other, so that identifiers and data registered with one authority are made available to all the other authorities.

- Therefore, another user who wishes to obtain look up identifiers or obtain reference data (and is authorized to do so), may go to *any* allocation/registration authority, and the data will be available regardless of whether that data was originally registered with a different authority. From the perspective of a consuming end user, the federation of service providers acts like a single, global resource.

- Any given allocation or registration authority may be subject to local laws and regulation. In some countries, such authorities operate with minimal government regulation and oversight, while in other countries the allocation and registration authority may be subject to close

government oversight or even exist as an agency of the government itself. In this way, different national preferences regarding local governance are accommodated.

- Likewise, a user organizationôs choice of allocation or registration authority may also be constrained by local laws and regulation. In some countries, a user organization is free to choose from any available authority, and a competitive marketplace for allocation and registration services emerges. This helps to reduce costs and to foster the emergence of value-added services and authorities that provide offerings tailored to specific market segments. In countries where governments exert more direct control, a user organization may be constrained to use the single government-authorized authority in accordance with local customs.

- Consistency and interoperability of the services provided by allocation and registration authorities operating within the federation is ensured through the establishment of global standards to which all such authorities must conform. Conformance is assured through a certification program operated by GS1 on a cost-recovery basis. The standards themselves are established through a voluntary consensus standards process, namely the GS1 Global Standards Management Process (GSMP). The GSMP is based on direct participation and voting by GS1 members, which include all stakeholders in the standards: end user companies, solution providers, government agencies and regulators, trade associations, other standards organizations, NGOs, and academia. GSMP is governed by elected boards that represent all of these stakeholder groups. The scope of the standards includes the following topics:

    - Specifications for the structure and allocation rules for globally unique identifiers (products, legal entities, etc).

    - Minimum data requirements for reference data that must be recorded for each new identifier.

    - Interfaces by which users or vendors supply reference data for new identifiers and update existing reference data.

    - Interfaces for querying for reference data.

    - Protocols for synchronization of reference data between registration authorities.

    - Procedures for challenging reference data and requesting updates.

The federated model in GS1 applies both to the allocation of globally unique identifiers and to the registration and dissemination of reference data associated with those identifiers.

Federation in the allocation of globally unique identifiers in the GS1 System works in the following way. GS1 Standards, as agreed through the GS1 Global Standards Management Process, define the structure of the nine different identification keys available in the GS1 System. This includes the Global Trade Item Number (GTIN) used to identify products, the Global Location Number (GLN) used to identify legal entities, and seven others. All of these identification keys share a common method of federated allocation. Within each type of identification key, a large block of numbers is allocated by the GS1 Global Office to each of the 110 country-based Member Organizations. Operating within its assigned block, each GS1 Member Organization assigns identification numbers to end user companies who request them. In some cases, a GS1 Member Organization allocates and assigns a single product identifier, legal entity identifier, or other identifier to a requesting end user organization. More commonly, a GS1 Member Organization allocates a block of consecutive numbers to an end user organization, enabling the end user organization to assign individual numbers at will.

The federated model of identifier allocation through GS1 Member Organizations addresses the challenges of global identifier assignment identified above:

- The system scales easily through the 110 country-based GS1 Member Organizations, as no one Member Organization is a bottleneck to global identifier assignment.

- National sovereignty is respected, as all large countries and many small countries have their own GS1 Member Organization that operates within the territory and jurisdiction of that country. If any country finds itself isolated from another, it is still capable of allocating globally unique identifiers within its assigned block. Each GS1 Member Organization is subject to local laws and regulations.

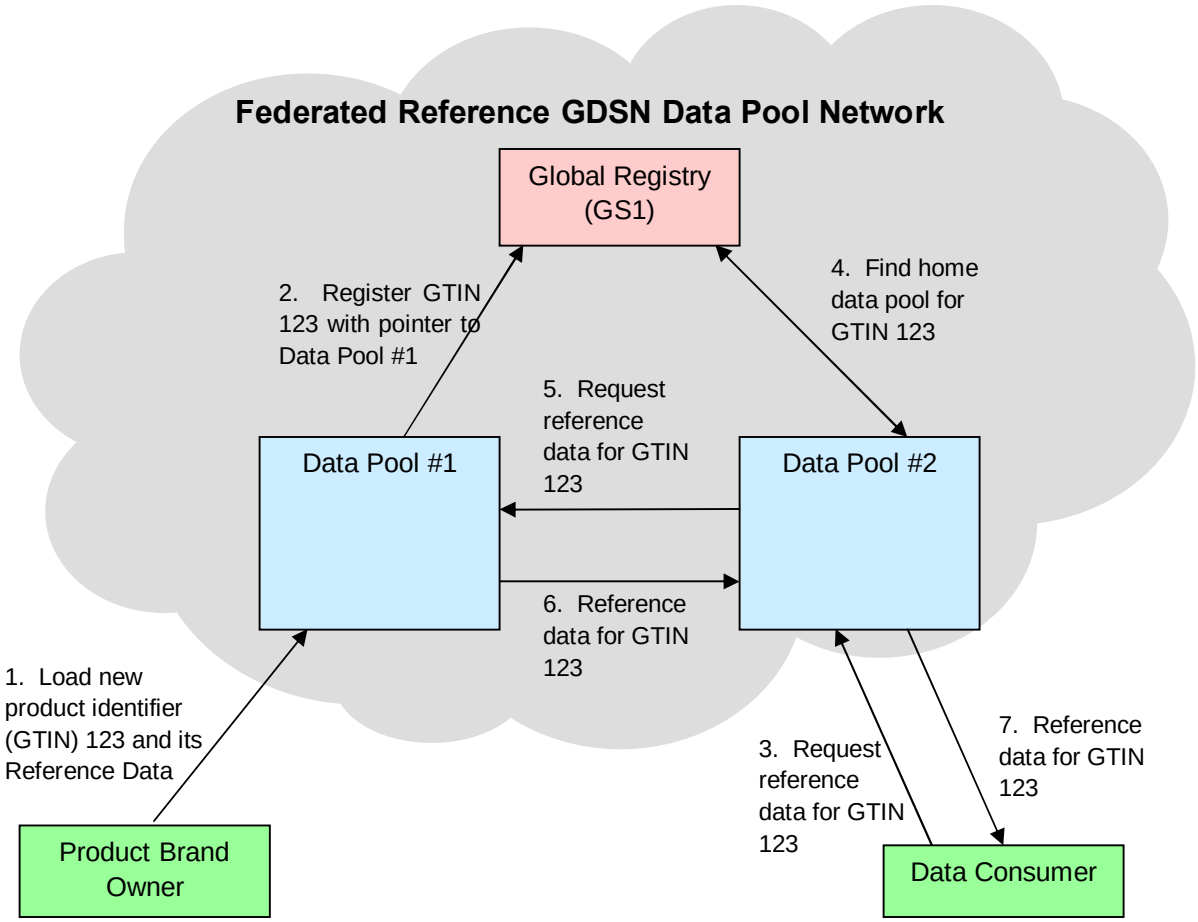
- Local needs are adequately served, as each GS1 Member Organization adapts its service offerings to the local language and customs of the country in which it operates.

Through this system, GS1 has allocated over 40 million product identifiers across 150 countries, and over 1.5 million legal entity identifiers. As products move through an increasingly global supply chain, companies are assured that the identification they affix to consumer products are globally unique and usable in any country where those products might travel.

Federation also applies to the way that product reference data is maintained in the GS1 Global Data Synchronization Network (GDSN). GDSN provides a global service in which the reference data associated with a product may be registered by the productôs brand owner, and other supply chain parties (distributors, retailers, etc) may obtain reference data for those products in which they are interested and authorized. For example, basic reference data for a consumer product includes a brief product description (as might be displayed in a point-of-sale terminal), product dimensions, weight, and so on. When a brand owner introduces a new product, it allocates a new product identifier (Global Trade Item Number, or GTIN) as described above, and then registers

the reference data within GDSN. A retailer can then obtain the reference data so that it knows how much storage space to plan, how to display the product in point-of-sale equipment, and so on. The reference data is also available to other interested parties as well, such as distributors, regulators (for regulated health care and other types of regulated products), and others. GDSN currently holds reference data for over 7.7 million product identifiers. The data standards define over 10,000 different data attributes, with any given product typically having about 1000 attributes populated. (While some product attributes are ñcoreò and apply to all products, such as dimensions and weight, other product attributes are specific to one type of product, such as nutrition information for food products.)

GDSN operates through a federated network of GDSN ñdata pools.ò Each data pool acts as a registration authority for the registration of new reference data associated with a product identifier or legal entity identifier, and also as a point of distribution of reference data to interested and authorized parties. In a centralized model, there would be a single data pool for the entire world. Instead, GDSN consists of a federated network that currently has 27 data pools, which collectively serve users in 132 countries. The data pools are coordinated through a synchronization process, so that an end user can obtain product information about any product from his chosen data pool, regardless of whether the brand owner of that product registered the reference data in the same data pool or a different one. The synchronization process is governed by GS1 Standards, and coordinated through a global directory that records the home data pool for each product identifier. This is illustrated in the figure below:



As with the federated model for identifier allocation, the federated model for reference data registration and dissemination in the GS1 System addresses the challenges of providing a truly global solution:

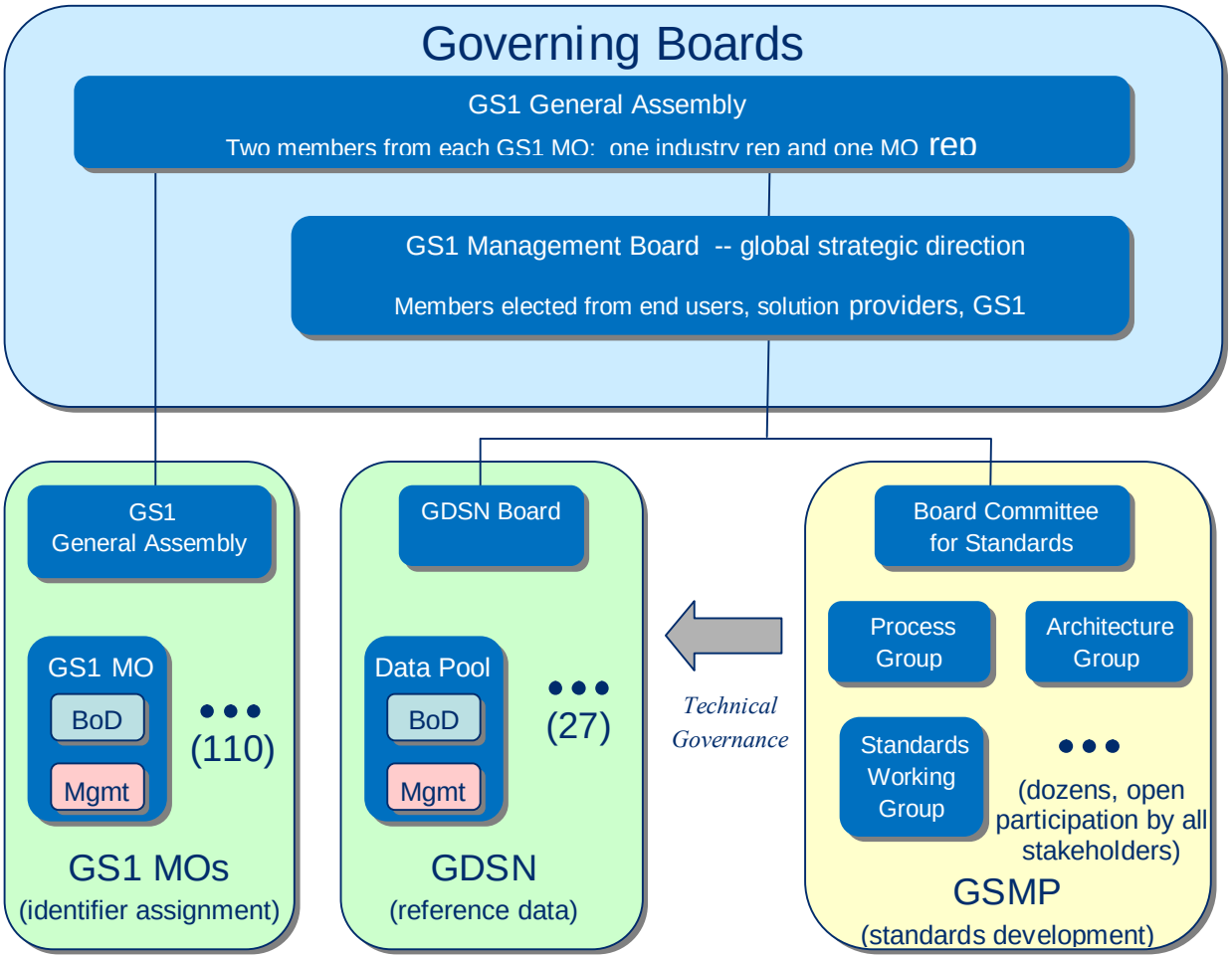
- The system scales through the 27 federated data pools, so that no one data pool is a bottleneck to global reference data registration and maintenance.
- National sovereignty is respected, as countries that have a strong concern for having reference data maintained within their jurisdictions can require the use of a data pool domiciled within their country, or operate a data pool as a government agency. Local laws and regulations may constrain which data pool an end user company uses, particularly for product categories that are subject to government regulation.
- Local needs are adequately served, as each data pool adapts its service offerings to the local language and customs of the country in which it operates. Data pools generally offer many value-added services around the business processes associated with registration and use of

reference data, and in markets that allow competition the data pools operating in those markets compete with each other on the basis of such services. This helps drive costs down and ensures that a variety of end users needs may be met efficiently.

It is important to note that while under the federated model there are many authorities for the allocation and registration of identifiers and reference data worldwide, this is *not* the same as the undesirable situation of having many independent identification systems across the globe. The difference is that GS1 identifiers are allocated from the *same* universal space of identifiers, and so a given product, legal entity, or other identified object only has *one* identifier that is the same in *every* data pool that has a copy of its reference data. The reference data is also the same regardless of which data pool is used to query for that data because of the network-wide synchronization protocols that ensure consistent data across all data pools.

Governance

As described above, GS1 facilitates two services for the benefit of the industries it serves: (a) allocation of globally unique identifiers by GS1ôs 110 country-based member organizations; and (b) registration and dissemination of reference data associated with those identifiers through its Global Data Synchronization Network of 27 data pools. The following diagram illustrates the governance structure for these activities:



GS1 identification assignment services are provided worldwide through GS1ôs 110 country-based Member Organizations (MOs). Each has local governance in accordance with local customs, but the following elements are in common:

- Each MO is a neutral, not-for-profit organization that does not have any for-profit commercial activities in the markets it serves.
- Each MO has a board of directors, with the directors drawn from the end user organizations served by that MO. Local regulators may also play a role depending on the laws and expectations within that country. The MO CEO and other members of senior management typically serve on the MOôs board *ex-officio*, but the chairman is an industry stakeholder.
- Each MO has a management team responsible for carrying out the operations of the MO, including providing identifier assignment services, customer support, education, and support of adoption within the MOôs local market.

GS1ôs Global Data Synchronization Network for the registration and dissemination of reference data associated with GS1 identifiers is provided by a federation of 27 data pools. Unlike the MOs, which serve an individual country, several of the larger data pools serve multiple countries and markets. Other data pools are focused on a particular industry vertical, and some data pools are operated as operating units of a GS1 MO. Of the 27 data pools that are currently part of GDSN, 7 are independent companies, 1 is an industry cooperative within the healthcare industry, and the remainder are operating units of GS1 MOs. The federated structure supports this variety, which in turn helps better meet the needs of specific industry verticals and regions. For example, 1SYNC is a for-profit data pool that serves many different countries in North America and elsewhere, the Global Healthcare Exchange (GHX) is an industry cooperative that serves a community of healthcare providers, and GS1 China operates a data pool for China that has significant governmental oversight in keeping with the local customs of that country.

Each data pool has its own management and governance structure in accordance with its corporate organization.

From a technical perspective, GS1 identification and the Global Data Synchronization Network are governed by technical standards that are developed and ratified through GS1ôs Global Standards Management Process (GSMP). GSMP is an open, voluntary industry consensus process, similar to the standards processes of other industry standards bodies such as the Internet Engineering Task Force (IETF), the World Wide Web Consortium (W3C), and others. GS1 is recognized by ISO as an Approved Reference Organization (ARO) which explicitly recognizes that standards developed through GSMP are suitable for use as ISO standards if so approved.

GSMP is open to all stakeholders that use or have an interest in GS1 standards, including end user companies, solution providers, government agencies and regulators, trade associations, other standards organizations, NGOs, and academia. All such stakeholders may join GSMP working groups and participate in the balloting process. Currently there are nearly 1000 organizations that participate directly in GSMP working groups. Key aspects of GSMP governance are:

- Open participation by all interested stakeholders. Any organization may participate in drafting standards and voting on their approval.

- Neutral oversight is provided by the GS1 Global Office. The GS1 Global Office provides standards process facilitators, but does not vote on the standards nor engage in any for-profit activity.

Overall governance of identification assignment, GDSN, and GSMP is provided through the following bodies:

- The highest governing body is the GS1 General Assembly, whose members consists of two persons from each of the 110 GS1 country-based Member Organizations: one industry

stakeholder (typically the chair of the MOôs board of directors) and one senior management representative (typically the CEO of the MO).

- Operational governance, including the ratification of standards, is provided by the Management Board (MB). The MB is composed of elected representatives from industry stakeholders, regulators, and GS1 MOs. The composition of the MB is designed to give balanced representation across all the industries and geographical regions that GS1 serves.

- The Global Data Synchronization Network (GDSN) has a dedicated project board that provides governance of GDSN-specific issues, reporting to the Management Board.

- The GSMP process is overseen by the Board Committee for Standards which reports to the Management Board. A Process Group provides oversight that due process is followed, and an Architecture Group ensures the technical integrity of all standards. All three of these groups are composed of industry stakeholders drawn from the general membership of GSMP. The work within GSMP itself is performed by Working Groups, whose voting members and chairs are also all drawn from industry stakeholders.

A key principle in this governance structure is that *all* governance bodies, save the management teams of GS1 MOs, are comprised of people employed outside GS1. They are representatives from key end users, solution providers, regulators, and other stakeholder bodies. The direct participation of industry stakeholders ensures that the governance of GS1 is always aligned with industry needs.

It should be noted that in areas of GS1 activity where government regulation plays a strong role (e.g., in healthcare), representatives from government regulators may also participate in the groups described above. However, regulators also have a direct influence over the industry stakeholders who directly participate in the standards development and governance of GS1, and often have more influence in this way than by direct participation.

Summary

As discussed at length above, GS1 believes that its 40 yearsô experience in providing globally unique identification and its 10 yearsô experience in providing global registration and dissemination of reference data for over 7 million products, legal entities, and other business objects is directly applicable to the financial industryôs needs for an LEI. As noted above, the underlying motivations ï straight-through processing and traceability ï are largely the same. While there are undoubtedly differences in the details of what is identified and what reference data attributes are needed, the challenges inherent in providing such services, especially on a global basis, are also quite similar. We believe GS1ôs federated approach, proven through years of operation at global scale, is an excellent model for providing globally unique identification and reference data for legal entities in the financial industry.

Specifically, GS1 offers the following comments on the CPSS/IOSCO consultative report:

- GS1 agrees with the five principles for an LEI outlined in Section 5.2.1 of the consultative report; namely uniqueness, neutrality, reliability, open standards, and extensibility. These are the same principles that GS1 has effectively employed for globally unique identification and reference data in the consumer products sector.

- GS1ôs experience is that the most effective model to provide such a facility on a global basis is a federated model, in which multiple service providers around the world work in concert to provide what to end users appears as a single global service, as described above. A federated model is key to addressing global concerns of scalability, accommodation of local regulation and customs, and preserving interests of national sovereignty.

- GS1ôs experience is that a federated system is best governed through open standards, which are developed in a neutral, open global standards development process that provides for direct participation and voting by all interested stakeholder organizations including end users, solution providers, and regulators. The standards development process itself is best governed by its own stakeholders, through elected representatives. Conformance to standards may be assessed through certification programs offered on a cost-recovery basis.

In this document, we have focused on responding to the committeeôs solicitation for comments concerning principles, implementation, and governance of a global Legal Entity Identifier. In addition, GS1 has extensive experience in product classification for the industry sectors it serves. While we do not discuss product classification in this response, we would be happy to share our views on this topic with CPSS and IOSCO if there is interest.