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Background

The Financial Stability Board has reached out to both its own members and industry members in a review of the global legal entity identifier, a project of significance to the future of financial information systems, Regulatory mandating of regulatory reporting and systemic risk analysis.

This report is focused on the first pillar of the review, industry members' responses to the benefits and challenges in implementing the legal entity identifier. The other two pillars, expert groups convened to discuss the same, and a survey of those entities overseen by Financial Stability Board member organizations are in progress with a final report due in May, 2019.

We report on nine (9) responses of industry members who have chosen to make their responses public, including our own. We have summarized each, linked each summary to their actual public response and summarized our overall impression of what these responses are conveying to the Financial Stability Board in meeting its objectives for "global adoption of the LEI to support authorities and market participants in identifying and managing financial risks".

To summarize other's work requires objectivity, especially as one of the responses is our own. In this effort I believe I can be objective as my life's work as a retired consulting partner of the world's largest accounting firm, PwC, and as a part-time academic has disciplined me to be open minded and objective. I apologize in advance if any of the recommendations described in the responses identified in this report are misrepresented by me

I am also comfortable to be thought of as knowledgeable as I have been researching and implementing financial data systems and risk management systems my entire career. I focused on researching the data issues of finance and its implications to risk management long before the financial crisis. I continued to pursue solutions and encouraged regulators to take this up as a fundamental issue of financial stability, which the G-20 did in giving the Financial Stability Board a mandate to deal with this issue after the financial crisis.

Summarizing what is being conveyed to the FSB by these nine respondents follows:

- The benefits to date to industry respondents of use of the LEI is found in the improvements of the manual process of looking up and verifying entities to separately maintained internal data bases. The industry associations have equated that to USD 3.4 million savings annually

- The LEI initiative is welcomed by all respondents, but giving up other identifiers in favor of the LEI will be a long term effort. Operational efficiencies will remain muted as long as mapping to other identifiers remains the mainstay of interoperability.

- Needed universal adoption is a shared opinion of what is required to meet both regulators systemic risk objectives and industry members operational cost reduction objectives.

- Universal adoption of the LEI is far into the future – at 1.4 million LEIs registered currently, it is far from the projected 40 million LEIs that the GLEIF has reported is needed for universal adoption.

- Costs to obtain a LEI, no matter how low they are now, are too high when compared to the zero costs of other identifiers.

- Regulatory mandates, for initial LEI registrations is essential to increase participation rates. Smaller financial participants do not agree that the LEI should be mandatory and that it needn't be used in all financial market interactions.

- Regulatory mandates for renewals is also essential to maintain the quality of the LEI. The GLEIF promotes the LEI as the only identifier that is renewed annually to demonstrate it as being the highest quality legal entity identifier.

- Our response offers an alternative or parallel track to the expectation that all the world's regulators will enforce a 'regulatory compulsion' approach now driving LEI registrations and renewals. To this end we note that a limited subset of the total of over 200 sovereign regulators oversees the global systemically important financial entities. We suggest a regulatory requirement of obtaining a LEI be imposed by each home country regulator of each systemically important financial entity and that they, in turn, require their clients to obtain LEIs. Collectively these 134 global entities do business with all the world's financial market participants. Operational risk capital reduction incentives can be offered to offset the increased total capital requirements already imposed on many of these systemically important entities.

- Timely renewals of LEIs should be coordinated with timely legal entity events lest the LEI data base falls out of synch with changes occurring in individual vendor and financial institution data bases.

- Hierarchical relationship data is a work-in-progress. Its usefulness as a risk management tool is anticipated, but too early to identify its real-world usefulness at this point.

- Some Industry associations have suggested that self-registration is burdensome and should be offloaded to financial intermediaries. We view self-registration as the responsibility of the source of the information and a critical component of maintaining the GLEIS as the industry quality identifier standard. In our response we suggest auditors become registration agents (one already is) and assist in the self-registration process as source validators of LEI registration information and, most importantly, as source validators of hierarchical relationship information.

- While we agree it may be burdensome to those occasional financial market participants (corporate and municipal issuers in particular) and smaller financial participants, self–registration needs to be invigorated because computer coded identification is evolving around cybersecurity issues where identities are to be protected and encrypted by their owners. In this regard GLEIF has recently begun investigating certificates and other cybersecurity enhancements to the LEI.

- Some respondents have identified Blockchain technologies, in particular the distributed ledger, as a promising technology for consideration as the GLEIS evolves. Toward this end the GLEIF has announced the 'GLEIs 2.0' project where, amongst other initiatives, a Blockchain prototype for sole-proprietor financial business entities is to be developed.

- Many global standards initiatives are in progress, all of which must be successfully completed to realize the regulators' objective of managing systemic risk. To this end we have recommended in our response that the GLEIF be given a central role in utilizing their government/public sector governance framework developed for the LEI to coordinate the final agreed to standards for all the other new global data standards - the UPI, UTI, CDE and the Derivatives ISIN.

Allan D. Grody

Allan D. Grody, President
Financial Intergroup Advisors

Summary of Terms of Reference for the Thematic Peer review on Implementation of the Legal Entity Identifier

In August 2018 the Financial Stability Board (FSB) announced a thematic review of the implementation of the global LEI (Legal Entity Identifier) initiative.[1].The LEI initiative is a global project to create a unique, unambiguous and universal digital identifier for business entities engaged as counterparties in capital markets and as participants in the financial supply chain.

The FSB's review is intended to evaluate the approaches and strategies used by FSB members (supervising entities aka regulators) to implement the LEI, including adoption for regulatory requirements; assess whether current levels and rates of LEI adoption are sufficient to support the ongoing and projected needs (particularly financial stability objectives) of FSB members; identify the challenges to advancing the implementation and use of the LEI; and make recommendations to address common challenges.

The Legal Entity Identifier (LEI) is a 20-character, alpha-numeric code whose aim is to uniquely identify legally distinct counterparties to financial transactions and to provide high quality reference data on them (such as the name, address, and basic ownership information). The Global LEI System (GLEIS) is the information, data base and communications system that requires widespread adoption to support authorities and market participants in detecting and managing financial risks. The LEI has been recognized, in the immediate aftermath of the financial crisis, as necessary improvements in financial data systems.

The G20 Leaders supported the creation of a global LEI at the Cannes Summit in 2011, and endorsed the global LEI system's high level principles and recommendations (set out in the FSB's report A Global Legal Entity Identifier for Financial Markets[2]) at the 2012 Los Cabos Summit. Since then, the FSB has continued to support the LEI implementation, including by establishing in 2014 the Global LEI Foundation (GLEIF), which serves as the operational arm of the system and federates local LEI issuers (LOUs – Local Operating Units) under the oversight of the LEI Regulatory Oversight Committee (ROC).

The objective of the LEI review is to evaluate the progress made by FSB members – both national authorities and international bodies in response to the G20 Leaders' 2012 call for "global adoption of the LEI to support authorities and market participants in identifying and managing financial risks".

The FSB has overseen the establishment of the LEI code structure, format and reference data; the technical and operational setup and startup of the Global LEI System (GLEIS); and the governance framework for operating and overseeing the LEI initiative. More specifically, significant progress has been made in:

- the completion of the governance framework endorsed by the G20 that consists of the Regulatory Oversight Committee (ROC), a committee made up of representatives of seventy (70) members of the FSB; the Global LEI Foundation (GLEIF) consisting of sixteen (16) industry participants organized as the operational arm and governing Board of the Global LEI System (GLEIS); thirty-

[1] FSB, Thematic peer review on implementation of the Legal Entity Identifier: Summary Terms of Reference, http://www.fsb.org/2018/08/fsb-launches-thematic-peer-review-on-implementation-of-the-legal-entity-identifier-and-invites-feedback-from-stakeholders/, 16 August 2018
[2] http://www.fsb.org/2012/06/fsb-report-global-legal-entity-identifier-for-financial-markets/

two (32) federated Local Operating Units (LOUs) responsible for LEI issuance globally including four (4) more LOUs in various stages of accreditation; and four (4) Registration Agents that assist legal entities in accessing the network of LOUs;
- the definition of a LEI code construction standard (ISO 17422) overseen by the International Standards Organization (ISO);
- the definition of reference data to be associated with the LEI code ('business card' information);
- the issuance of LEI codes and accumulation of reference data on 1,260,541 legal entities as of month-end August 2018; and
- the issuance of LEI codes and enrichment of reference data to identify international/foreign branches
- the initiation of mapping of ISIN (International Securities Identification Numbers) codes to LEIs

Further progress has been made on the issuance of LEI codes and collection of relationship reference data on direct and ultimate parents of legal entities (begun May, 2017):

- agreement on the definition of legal entity relationships (ultimate and immediate parents of legal entities) to comport with the relationships identified in accounting rules associated with consolidation of financial records for financial statement reporting purposes (GARP and IFRS accounting rules);
- the issuance of 141,694 ultimate and immediate parent entities representing 83,652 unique legal entities registered with LEIs as of month-end August 2018;
- the identification of 1,066,405 legal entities as of month-end August 2018 that have not recorded a LEI by invoking exception reasons allowed by the ROC

The FSB has invited feedback from financial institutions, industry and consumer associations plus other stakeholders on implementation of the LEI. As requested, this could include comments on:

- identifiers used by financial institutions for legal entities established in their jurisdiction or in foreign jurisdictions, and the extent to which they are mapped to the LEI;
- awareness and adoption of the LEI in their jurisdiction, especially the existence or prospect of any market-driven or voluntary adoption of the LEI by market participants;
- types of private sector uses of the LEI (e.g. to implement risk management frameworks, support financial integrity, reduce operational risks, or support higher quality and more accurate financial data) as well as the benefits measured or anticipated from such uses (including any quantification of the benefits, to the extent possible); and challenges and costs faced in acquiring and maintaining LEIs;
- main obstacles faced by market participants to adoption and implementation of the LEI; and
- ways to promote further adoption of the LEI, including specific areas where increased LEI uses would be the most favorable from a cost-benefit perspective.

The primary source of information for the peer review will be responses to a questionnaire by FSB jurisdictions. In addition to the questionnaire to national authorities, the peer review will collect information from regulators and international financial institutions on areas in the scope of the review, such as any LEI strategy or approach, use of the LEI to support data collections, research or other purposes, achievements and challenges.

Input may also be sought from the GLEIF in their area of expertise, such as LEI data, implementation costs, or private sector uses. The collection of feedback and information will be complemented by a roundtable with market participants, identified in consultation with relevant FSB member authorities, to gather views on the benefits and uses of the LEI and related strategies and challenges with respect to global LEI adoption, including costs for its initial issuance and maintenance by legal entities. The review team will also collect information drawing from policy papers, guidance and other documents published by authorities and market participants.

FSB invited feedback from financial institutions, industry and consumer associations plus other stakeholders on implementation of the LEI. Feedback here was to be submitted by 21 September 2018. We report on the nine (9) responses made public by responders in advance of the use of these responses for FSB's later analysis. The FSB has declared it will not make individual responses public in its reporting.

The peer review report is expected to be published in May of 2019. It will describe the approaches followed by individual jurisdictions to promote LEI expansion; identify areas where FSB members face common implementation challenges; and document practices that have advanced the adoption and use of the LEI in improving the usability of financial data for financial stability purposes. It will also include an assessment of current levels of LEI coverage across sectors and geographies so to provide a factual basis for the analysis.

FIG's High Level Summary of All Responses

The nine responses, all complimentary to the goals of the LEI, are summarized at a high level below followed by detailed summaries of each linked to their individual responses. Common themes include the high cost (compared to no cost of some identifiers) of registering a LEI; the operational burden of renewing a LEI and its reference data; the acceptance of the mapping of the LEI to other identifiers and its operational consequences; the expectation of a majority (but not all) respondents to eliminate mapping over the long term and rely on the LEI as the singular identifier; and the aspirations of many to reap the internal cost benefits of standard hierarchical ownership information for risk management and the operational efficiencies accruing from a singular identifier for financial market participants.

- SSDA and SWIFT would use the LEI as required, map them to other identifiers, but do not see the LEI as a replacement for theirs or other local identifiers.

  Their responses reflect the reality of embedded identity codes in their own systems, in their members' ecosystems and, in the SSDA's case, in their national tax system as long term deterrents to using a sole legal entity identifier. They see mapping to the LEI as the primary way forward into the foreseeable future.

- FIG, ISDA/GFMA, State Street, XBRL US and BVI seeks full replacement of entity identifiers with the LEI over time. While accepting mapping throughout a transition period, however long, these responses recognize the risk and operational inefficiencies of mapping and seek to achieve the long term benefits of a singular non-proprietary legal entity identifier code.

Their responses also recognize the current deficiencies in the existing implementation of the LEI and its reference data, mainly in data quality, in timely and accurate updating, and in the lack of mandatory renewals of LEIs.

Most critically, they see many sovereign regulators' reluctance to mandate the use of the LEI and the still unproven use of LEI hierarchies for risk data aggregation as major obstacles to realizing the objectives for the LEI.

- The World Council of Credit Unions finds the LEI costly and burdensome and does not want to see it mandated for its member organizations. They cite considerable costs to retool their systems.

- The Federation of European Securities Exchanges points out an uneven application of LEI mandates to the investor community, leaving out one critical segment completely. They cite non-EU issuers that have no obligation to obtain LEIs even though EU trading venues are required to report LEIs for all tradable instruments. They also cite inconsistencies in approach to the application of LEIs to investment funds.

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Following are the nine responses summarized by FIG that have been made public by their authors. Their actual responses are also included via referenced hyperlinks:

FIG's Summary of Individual LEI Review Responses (along with their actual responses)

Financial InterGroup (FIG)[3]

Financial InterGroup Advisors is a consulting firm focused on research and advisory services at the intersection of risk, data, technology and regulation. Its principle consultant and founder is Allan D. Grody. Mr. Grody was a partner and the founder of Coopers & Lybrand's (now PwC's) Financial Services Consulting Practice. At New York University's (NYU's) Stern Graduate School of Business he founded and taught the only graduate-level risk management systems course that viewed risk management from a global financial industry infrastructure and enterprise systems perspective. He is an editorial board member of the Journal of Risk Management in Financial Institutions and has authored numerous academic papers and trade articles focused on risk adjusting the financial system and reengineering financial institutions. He has served as an expert in litigated matters related to patent infringement cases and class action shareholder suites; and as an expert on panels and working groups involved in assisting regulators in the global realignment of data and risk management after the collapse of Lehman Brothers.

FIG's response is supportive of the LEI initiative and its significant accomplishments to-date. However as significant as the progress is, the adoption of the LEI by itself is but one of many technical components

[3] Financial InterGroup, response to FSB's Thematic peer review on implementation of the Legal Entity Identifier, *Can a globally endorsed business identity code be the answer to risk data aggregation?*, https://www.researchgate.net/publication/328615286_Can_a_globally_endorsed_business_identity_code_be_the_answer_to_risk_data_aggregation [accessed Nov 17 2018]

necessary to aggregate financial transactions to enable a more granular management of financial risk, the overriding objective for the FSB's endorsement of the LEI initiative.

While the LEI is, arguably, the most critical data component of a financial transaction, a comprehensive set of data identification and data element standards is required to efficiently aggregate data into meaningful and timely input for analyzing any single firm's enterprise risk and, ultimately, the G20's objective of analyzing multiple firms' systemic risk.

Financial stability measures observed through risk analysis and enabled by risk management is and has always been the objective set by the G20 in establishing the FSB and in initiating identity and data element standards. As such the LEI initiative cannot stand by itself as it is but one component of a financial transaction. The LEI initiative must, therefore, be observed in the context of the other global data initiatives of the FSB and its members: the unique transaction identifier (UTI); the unique product identifier (UPI); the international security identification number (ISIN); and the OTC common data elements (CDEs) initiatives.

Without completion of these remaining data identifier and data element standards the adoption of the LEI code alone cannot meet the FSBs objectives. Toward this end the FSB awaits further input from responses to consultations, from their own consultation on the LEI directly, and from those from other standards setters and regulators still outstanding that directly impact the global LEI initiative.

Taken together with the LEI's parent relationship project and the consideration of the LEI in the Bank for International Settlements (BIS's) BCBS239 data aggregation initiative, the LEI and the other standards initiatives collectively become critical in both financial institutions and regulators ability to aggregate data.

In concluding these data standards' consultations the FSB has seen benefits in a common governance structure for a number of them, including the LEI, UPI and UTI, the latter being dependent for uniqueness on being combined with the LEI. To further this thought it would seem that a central global point of governance over all transactional financial data standards would serve to integrate these disparate standards activities into a single taxonomy for both the industry's and regulators' benefit. This may suggest consideration of a greater role for the governance structure of the LEI initiative and the GLEIF itself.

As to the technical solutions available to produce such a single taxonomy under a central governance structure, the availability of distributed networks and, particularly now, distributed ledger technology (DLT) should be considered. This would be as a substitute for the costly, legacy infrastructure solution currently being deployed for the organizationally federated Local Operating Units (LOUs) in the Global LEI System (GLEIS). It should be noted that the GLEIF is currently prototyping a DLT solution for implementing LEI registrations for individuals operating in a business capacity. This DLT solution is more like the originally intended design of the GLEIS that was proposed and accepted by the FSB in 2012. If successful it could replace the entire GLEIS while still retaining the LOUs as nodes on the DLT.

In the LEI's original federation concept the LEI system was to operate as a "virtual" database of LEI registries in an internet-like federated technical network solution. This is unlike the current implementation of organizationally federated LOUs, where data is sent periodically to a centralized data base maintained by the Global LEI Foundation (GLEIF).

The technical federation was accepted by the FSB and called for sovereign jurisdictions to be connected to a network through a 'plug-in architecture' and 'network cards'. This would have allowed GLEIF to support the maintenance of a 'logically' centralized, always available database of identifiers and corresponding reference data that followed the Internet's distributed, no single point of failure architecture. To users the database was to appear as a single seamless system, but with the data physically stored on different systems across the globe. Technology was to deliver the logical centralization, in real-time if necessary.

GLEIF continues to impress as the newest creation of a private/public partnership, one that has the potential to be at the global center of technology and data standards applied to the infrastructure of finance. The FSB should consider assigning more to GLEIF under its governance structure such as all outstanding identity data standards, critical data elements, reference data elements and data aggregation issues.

FIG believes that some of the remaining obstacles to the success of the FSB's global data initiative (LEI renewal mandates, timely updates of legal entity events, comprehensive collection of hierarchical relationship data, and extension of the LEI mandate to the remaining categories of financial market participants – pension arrangements, government agencies, municipal and provincial entities, and eleemosynary institutions) cannot be comprehensively met within the current approach of regulatory compulsion. It will take too long for universal participation and the legacy operational and technical foundations of the GLEIS will become obsolete before all countries and their financial supply chain participants are on board. As an alternative, or in parallel, a government/private sector initiative could be organized, focused initially on the largest systemically important global financial institutions, their home country regulators and their auditors.

To us it would seem easier to initially have the largest banks (there are 30 G-SIBs) compelled by their financial regulators (there are twelve of them) and working with the four global audit firms that audit them, to collectively tackle and accelerate the remaining implementation tasks in an integrated way. Thereafter, the 30 G-SIBs group can be extended to the 104 remaining systemically important domestic banks, insurance companies and non-bank financial institutions (investment companies, financial infrastructure entities, etc.). This group already separated from others as systemically important entities follows different supervisory directives then all other financial industry participants.

Auditors would be able to view original source documents for qualifying registration of new LEIs or changes to reference data, and qualify the accuracy of relationship data being placed into the GLEIS, a needed validation check not now available in the GLEIS. It had been thought that this validation would be performed by LOUs but this is not occurring.

Placing accurate relationship data into the GLEIS following account consolidation rules that accountants adhere to in producing audited financial statements is critical to aggregating data for risk analysis. Account consolidation hierarchies is the initial ownership and control structures being placed into the GLEIS. Thereafter, resolving this hierarchy into ones that support risk and credit data aggregation becomes easier.

To accelerate the data standards agenda a capital reduction incentive can be offered of as much as 20% for operational risk mitigation. Such an incentive is already available through insurance or other risk transfer mechanisms, as originally proposed by the BIS in its Basel II framework. It would seem reasonable to provide such an incentive to a data standards mechanism as it is a means to eliminate operational risk, rather than just transfer it.

This capital reduction incentive could be made contingent on the initial group of G-SIBs' collective action to establish plans and agreements to implement common data standards throughout their own enterprises. Additionally they would compel their clients and vendors to communicate exclusively to them through use of these data standards. Like the giants of global commercial trade, which compel use of the Barcodes in their supply chain, the G-SIBs interact with almost all of the global supply chain participants in the financial industry.

Since the Lehman bankruptcy a sea change has occurred with regard to data standards, from an industry failing to collaborate to an industry in almost full collaboration mode. Specific regulators that do not mandate acquiring or renewing a LEI is now the key impediment to meaningful progress.

It would seem easier to have 12 regulators compel adoption by 30 G-SIBs, then 104 other systemically important financial entities than to depend on upwards of 200 sovereign country regulators, each at their own pace and each protecting their sovereign self-interests, to compel global adoption as is the case today.

We see the FSB and the BIS as the highest level bully pulpit for assuring that regulators continue their pursuit of financial stability. We also hope these two global standards bodies can act as the catalyst for a renewed government/industry partnership to complete the LEI and the other data initiatives. These data initiatives are so critical to observing the contagion of systemic risk building up across the global financial system and realizing the operational efficiencies of Straight-through-Processing.

ISDA/GFMA[4]

The International Swaps and Derivatives Association (ISDA) has more than 900 member institutions from 68 countries. These members comprise a broad range of derivatives market participants, including corporations, investment managers, government and supranational entities, insurance companies, energy and commodities firms, and international and regional banks. In addition to market participants, members also include key components of the derivatives market infrastructure, such as exchanges, intermediaries, clearing houses and repositories, as well as law firms, accounting firms and other service providers

The Global Financial Markets Association (GFMA) brings together three of the world's leading financial trade associations to address the increasingly important global regulatory agenda and to promote coordinated advocacy efforts. The Association for Financial Markets in Europe (AFME) in London and Brussels, the Asia Securities Industry & Financial Markets Association (ASIFMA) in Hong Kong and the Securities Industry and Financial Markets Association (SIFMA) in New York and Washington are, respectively, the European, Asian and North American members of GFMA.

[4] SDA GFMA FSB Peer Review LEI Implementation 3 October 2018 FINAL Public... (pdf)

The International Swaps and Derivatives Association (ISDA) and the Global Financial Markets Association (GFMA) filed a comprehensive joint response. They encourage the FSB to take a stronger hand in the regulatory mandating of the LEI world-wide. They recognize that many non-proprietary entity codes exist and that the LEI promises to replace them over time. ISDA/GFMA expects that expanding mapping of the LEI to other codes will support an interim method of interoperability on the way to the longer term goal of replacing proprietary codes with full adoption of the LEI. They suggest strengthening intermediary involvement in direct registration; encourage improvements in renewal processes and changes to reference data; and reinforce the importance of linkages of LEI relationship data for risk and credit monitoring.

The benefits of efficiency and cost savings through use of the LEI seems clear. However, firms have numerous competing priorities, and despite the benefits from using the LEI, adoption without a regulatory mandate tends to become a lower priority in the face of many other critical projects. They urge the FSB to proactively work with regulatory authorities who have not yet required the LEI in legislative text to promote regulatory mandates as part of the thematic peer review. Further, they encourage the FSB to assist in raising awareness of the LEI outside of just the financial markets.

Divergent LEI regulatory adoption from jurisdiction to jurisdiction makes implementation of the LEI for industry participants more complex and confusing, increasing the chance of reporting inconsistencies. In addition, because of this divergence, parties need to incorporate several counterparty identifiers in their global reporting systems, placing upward pressure on operational costs.

Periodic education and socialization by the FSB, as well as more targeted education to regions currently lagging in LEI uptake would support the financial industry's efforts to motivate clients to obtain an LEI.

While the LEI is generally of superb quality, as with most data the utility of the LEI is a function of its ability to convey current and accurate information. There are instances where the LEI may not fully provide current information about the legal entity it represents, which can undermine the utility of the LEI and thereby undermine broader LEI adoption. These instances generally fall into two categories: inaccuracy or ambiguity in the information initially entered into the LEI database – through an LOU – when a legal entity obtains an LEI, which is infrequent; and, more often, where the initially accurate information regarding a legal entity ceases to remain accurate– though the passage of time – as the legal entity evolves and changes.

ISDA/GFMA is aware that the GLEIF is implementing, in stages, a robust data quality program that will largely address issues with initial registration. However, the maintenance of the reference data over time is another issue needing attention.

They see that new areas where the LEI will be very useful are on the horizon beyond the original derivatives reporting mandate, including new recordkeeping requirements for Qualified Financial Contracts ("QFCs") and cross-default requirements. To continue to promote such expansion, it is critical that the data quality within the system be maintained at the highest level possible.

To improve the quality of the lapsed reference data, in particular, ISDA/GFMA suggests work needs to be undertaken to think about the roles of the various parties in the process of maintaining the data, rather than just relying on the registrant. The responsibility of maintaining reference data could be shared among registrants, financial firms, other market participants, LOUs and the GLEIF, rather than solely by the registrant.

Standardizing representation of data at LOUs would eliminate the need for industry participants to perform multiple searches using variations of naming conventions, would reduce mistaken (or missed) identification, and eliminate the time spent on duplicative searches.

ISDA/GFMA encourages the FSB to explore strategies to increase LEI data quality to further facilitate the adoption of the LEI. Working together with the ROC (Regulatory Oversight Committee) and GLEIF, the FSB should also explore additional mechanisms for regulated entities, such as banks, to obtain LEIs on behalf of the legal entities who are their customers. Banks and other regulated entities generally see value from high quality LEI data and greater adoption of LEIs as they will have access to current and accurate legal entity data related to its customers.

At the same time ISDA/GFMA sees the FSB helping financial institutions in many processing activities through encouraging regulators to:

- eliminate duplicate documentation collection to satisfy KYC requirements by amending requirements to allow reliance on LOU validations rather than requiring that banks to collect the documentation;
- allow banks to more generally pull and consume the data in the LEI centralized database for a myriad of internal business entity processing purposes; and
- place the LEI on legal documents to facilitate direct data input.

Further efficiency gains will be achieved as the ROC undertakes efforts to enhance the LEI record by adding better information about fund relationships and ensuring that relationships are consistently represented, and using corporate actions and legal entity data history information in the GLEIF to enhance LEI accuracy and utility.

With regards to corporate actions, relationships between deactivated entities and replacement entities are inconsistently presented from record to record. Ideally, successor entity LEIs should be linked to the prior entity so there is no uncertainty in identities, however, often there is no linkage data and no information which enables searchers to link the successor entity to prior relationships using the LEI record.

The LEI record of the successor entity does not even mention the previous one that has been replaced, while other LEI records do include the names of a prior entity, with no way to access the old entity information. It would be useful if the successor entity record could include an audit trail of what occurred prior, or a link to access a source of that information.

ISDA/GFMA believes business registers are in an ideal position to adopt, obtain and map LEIs into their databases. The GLEIF data record now includes information to identify the business registry where a Legal Entity is registered. ISDA/GFMA estimates that centralized access to these business registries through the GLEIS saves the industry approximately 76,008 hours or 9,501 eight-hour work days. Using the GLEIS for eliminating manual matching of security identifiers' issuer identity with its entity equivalent in client reference databases and risk systems will reduce up to 250,000 hours, or 25,014 eight-hour work days.

(Both examples of time savings equates to approximately 17 man years. FIG estimates that at $200,000 per man year for salary, benefits and office space allocation the industry-wide savings is $3.4 million).

If an LEI were attached to entities in both a risk hierarchy and an accounting consolidation hierarchy, there would be no need to perform additional due diligence within the firm to determine if the correct organization was being referenced in both places. This would save the industry significant time and effort. In addition, some vendors provide hierarchical information which could vary from that of a firm's internal view. Use of LEIs would allow for prompt verification that entities are in fact the same.

ISDA/GFMA is optimistic about the ability to leverage the GLEIF Level 2 database to facilitate such cross-referencing improvements as well as to use the database as a quality check on ISDA/GFMA member relationship records. As the collection and validation of immediate and ultimate parent information continues to grow, Level 2 data will help bring consistency to how each institution looks at hierarchical relationships and therefore will aid the analysis of risk and credit exposures. However, the current iteration of the Level 2 database is very difficult to use and the industry would like to see the GLEIF make near-term improvements to the usability of the database. Complete data from a Level 2 perspective will help unlock the real value that industry participants hope to achieve in risk management and credit risk.

ISDA/GFMA supports future LEI uses by exploring new technologies such as digital signatures, digital certificates, and utilities based on blockchain technology that are expected to be integrated into many different processes, including the onboarding process of financial institutions. Employing LEIs could provide certainty of entity identification to improve data quality. As examples, LEIs could:

- be used in a distributed ledger (e.g. "blockchain") system for trading financial instruments to unambiguously identify counterparties,
- be embedded into electronic seals (digital certificates) to provide evidence of a document's origin and integrity, and
- provide a way to construct an audit trail in numerous circumstances.

ISDA/GFMA encourages the FSB to support the ROC and GLEIF as they pursue such opportunities for the LEI system

State Street Bank[5]

State Street specializes in the provision of financial services to institutional investors. This includes investment servicing, investment management, data and analytics, and investment research and trading. State Street operates in more than 100 geographic markets worldwide, including North America, Europe, the Middle East and Asia. It oversees $33.867 trillion in assets under custody and administration and $2.723 trillion in assets under management. State Street is organized as a United States bank holding company, with operations conducted through several entities, primarily its wholly-insured depository institution subsidiary, State Street Bank and Trust Company.

[5] http://www.statestreet.com/content/dam/statestreet/documents/RIGA/Global/FSB%20Thematic%20Peer%20Review%20of%20LEI%20Implementation.pdf

State Street in their response seconds the response of ISDA/GFMA. State Street strongly supports broader use of LEIs in regulatory reporting and other similar supervisory requirements. The see the use of LEIs promoting greater understanding of the scope of financial entities, which in turn makes cross-referencing and aggregating data much easier to undertake. A broad adoption of LEIs enables financial institutions to more effectively manage data, thereby improving their ability to monitor and assess systemic risk and create greater efficiencies in the financial market place. Manual processes to investigate and remediate faulty client data would be largely diminished with the broader adoption of the LEI.

State Street's response is intended to affirm, at a high level, their strong support of LEIs in reference data. They emphasize the importance of regulatory mandates in ensuring its broad-based adoption by financial market participants. Specifically, State Street recommends that the FSB support the expansion of regulatory mandates in local jurisdictions to utilize the LEI and support requirements that users annually renew LEIs.

XBRL US[6]

XBRL US is a national, nonprofit consortium for the business reporting standard - a member-driven organization, representing accounting firms, software companies, other nonprofits, data intermediaries, and service providers. XBRL is a nonproprietary, open standard, designed specifically for financial data, and is currently in use in 60 countries, by over 10 million companies, and has been adopted by over 100 regulators.

As a standards organization, they strongly support the LEI as it represents a critical opportunity to provide needed clarity around organizational provenance, with benefits to businesses, regulators, and investors alike.

Multiple identifiers, some proprietary, some open, are used by different government agencies in the United States. For example, the SEC uses the Central Index Key (CIK) to identify operating companies, and the LEI for reporting by investment funds; some agencies use the Employer Identification Number (EIN), and still others rely on proprietary formats such as CUSIP (Committee on Uniform Security Identification Procedures) which is also used to identify a security issuer. The Federal Government uses DUNS numbers to track contractors. These identifiers are not mapped to the LEI.

Identifiers that are more widely used in the U.S., such as the EIN, the CUSIP and the CIK, do not allow the type of ownership structure tracking contemplated to be available through the LEI. In addition, the problem with multiple identifiers is that data reported by these entities cannot be easily commingled - mapping of differing identifiers must take place before information can be compared.

Organizations that are accustomed to using a different standard identifier such as the CIK, are typically reluctant to switch because of the transition costs. The second impediment to adoption is the cost of the LEI, which does not compare favorably with free identifiers such as the EIN or CIK.

[6] XBRL US Letter RE FSB Peer Review On LEI 9-21-18 FINAL

Identifiers are critical components of financial data standardization. Without the adoption of a single, standard identifier, data users must rely on mapping tables requiring significant maintenance and real-time updates that are unnecessarily manual, duplicative, prohibitively expensive and prone to error.

XBRL US's response observes that there are many entity ID's in use in the US and many taxonomies being developed. However, there is no mandating that a LEI be the primary or exclusive means of entity identification. XBRL US notes that a singular business identity is desirable, and that the mapping of multiple codes is risk prone and costly. XBRL makes two specific recommendations, that the LEI should be mandatory across all US regulators and that it should be made mandatory for inclusion in state business registries.

BVI[7]

BVI represents the interests of the German fund industry.

BVI believes the Global LEI System (GLEIS) has worked very well but seeks wider acceptance of the LEI to achieve its full potential through a mix of further regulatory measures and private initiatives, and in expanding into other sectors of the global economy.

The LEI responds to the critical need for a universal system of identifying entities across financial markets, products, and jurisdictions. However, in the supervision of non-financial sectors and tax identification, the use of proprietary identifiers is prevalent.
BVI recommends that the mandated use of the LEI must increase globally beyond FSB and G20 jurisdictions. BVI is aware that several G20 countries do not have regulations in place that mandate the usage of the LEI, or only regulation where the LEI is one of several choices of entity identification. BVI believes that there is an opportunity within the G-20 countries of leveraging the LEI as a global identifier stretching the usage and the benefits beyond the financial sector.

To address the issues of data quality and lapsed LEIs what the BVI suggests is needed is regulations mandating renewing LEIs and re-validating the associated reference data. Without this quality issues arise where companies that have merged or retired are not appropriately identified; company names or legal form are not updated; and direct and ultimate parent information is not recorded.

BVI is concerned with the still high cost of registration of LEIs. Their members register LEIs for hundreds of investment funds and face considerable cost compared to single LEI corporations. To lower costs they suggest new ways of registration, e.g. by providing the LEI in the context of a first time business registry entry and enabling trusted parties to issue LEIs under guidelines from GLEIF to achieve low or no cost registrations.

[7] https://www.bvi.de/fileadmin/user_upload/Regulierung/Positionen/LEI_und_RIC/2018_09_20_BVI-position_FSB_Consultation_LEI.pdf

SWIFT[8]

SWIFT is a member-owned cooperative headquartered in Belgium. SWIFT is organized under Belgian law and is owned and controlled by its shareholders, comprising more than 2,000 financial institutions.

SWIFT notes that the LEI is becoming the most commonly used entity identifier in Europe, and is recognized in a variety of financial regulations. However, SWIFT notes there are other regulatory contexts in which entities must be recognized by other identifiers. While the GLEIS has included the BIC (SWIFT's Bank Identifier Code)-to-LEI mapping, SWIFT describes its own efforts to map some of those mostly used identifiers to get a central view on entities for usage across multiple regulations. The identifiers included are the LEI, the BIC, the GIIN (the Global Intermediary Identification Number), the BRN (the business registration number – which is collected with the LEI) and the MIC (the Market Identifier Code). SWIFT sources data directly from data originators, including central banks, code issuers and financial institutions.

SWIFT and the Payments Market Practice Group (PMPG) consulted the industry on proposing to add the LEI to the identification element within SWIFT payment messages (currently the identification element contains only the BIC), so that the LEI can be used in addition to the BIC. This will allow an LEI to be used as an identifier for parties within a payment e.g. the debtor, ultimate debtor, creditor or ultimate creditor. After approval the change will be implemented in the production environments in November 2019. SWIFT believes that this will facilitate broader adoption of the LEI as a global identifier across the financial industry.

Swedish Securities Dealers Association (SSDA)[9]

The SSDA represents banks and investment services firms active in Sweden's securities market.

The SSDA's position is that LEI's are quite expensive for non-financial counterparties noting as an example that when small import/export companies want to hedge their foreign currency their price sensitivity causes them to consider refraining from hedging. They also point out that while its simple to acquire a LEI, companies that have several LEIs creates significant difficulties when choosing which one to use when reporting their transactions.

In Sweden national requirements, including higher security and quality requirements then is present in the GLEIS, are obstacles to more general implementation of the LEI at the national level. These national ID's are also used by the tax authorities and cost nothing to obtain.

The SDDA reports that the yearly renewal of LEIs (Lapsed LEIs) is time consuming, costly and creates unnecessary reporting and administrative burdens. The process for investment firms handling lapsed LEIs of clients (when clients have delegated the reporting to a financial institution) is extremely cumbersome given the fact that LEI lapses from one day to the next. Clients can postpone renewal action until the day before it lapses which leaves a minimum of time for financial institutions to react. SSDA members also

[8] https://www.swift.com/resource/swifts-comments-fsbs-thematic-peer-review-implementation-lei
[9] http://www.fondhandlarna.se/files/4615/3753/6551/2018-09-21_Letter_from_SSDA_to_FSB_re_Thematic_peer_review_on_implementation_of_the_LEI_002.pdf

experience a time lag from the day a LEI is renewed until it is registered in the GLEIF database - which causes the lapsed LEI to trigger trading restrictions for clients who had already renewed their LEI.

The SSDA also reports that there is a lack of guidelines from regulators as to how to treat a lapsed LEI in multiple reporting scenarios e.g. where a client holds an open derivative position also held at a trade repository (TR) and where a subsequent lapsed LEI does not permit that client to trade. They note that TR's are slow to process LEI renewal notifications. The SSDA also states they do not understand the consequences for an investment firm having active trading clients with lapsed LEIs and what is expected of them regarding notifying clients of lapsed LEIs.

SSDA members have experienced challenges with some non-EU counterparties not willing to provide a LEI by notifying members that these counterparties needn't follow MIFIDII/MiFIR nor EMIR mandates. Some third country governmental counterparties refuse to allow regulatory transaction reporting in the event SSDA members were to trade with them. They appear to view it as information regarding their market activities to which other governmental authorities should not have knowledge about.

Because of these factors the SSDA sees the LEI as a parallel identifier not a replacement of the national identification number.

World Council of Credit Unions [10]

The World Council of Credit Unions is the leading trade association and development organization for the international credit union movement. Worldwide, there are over 68,000 credit unions in 109 countries with USD 1.8 trillion in total assets serving 235 million individual customers.

The World Council of Credit Unions has stated that they do not want the LEI to be mandatory. They cite considerable costs for credit unions to retool their systems.

They urge the FSB and other policymakers to incentivize increased uptake of the LEI rather than to mandate its usage per se, especially for smaller financial institutions. They believe that increased usage of the LEI can help limit unreasonable regulatory burdens on credit unions and other community-based financial institution so long as obtaining an LEI is voluntary or is only required when institutions enter into specific types of financial transactions, such as derivatives trades. We do not support mandating that all depository institutions obtain LEIs at this time because updating a credit union's or bank's back-office computer systems to accommodate a new identification number can be very expensive as are costs associated with any applicable LEI-related registration fees.

Currently, World Council's members report that obtaining an LEI is most often required for participants to derivatives transactions. We believe that this is a rightsized approach because usually only credit unions and mutual banks with more than USD 1 billion in assets engage in derivatives transactions. For these institutions, the costs of updating their computer systems to incorporate the LEI or to pay LEI-related registration fees are relatively low compared to their economies of scale.

In addition, the Financial Crimes Enforcement Network (FinCEN) of the US Treasury that serves as the financial intelligence unit of the US, in 2016 rejected the proposed mandatory use of the LEI for anti-

[10] https://www.woccu.org/documents/FSB_Peer_Review_of_Legal_Entity_Identifier

money laundering/countering the financing of terrorism (AML/CFT) customer due diligence purposes because "the overwhelming majority of legal entities subject to this requirement will be smaller or non-financial entities that would not be typical applicants for LEIs in the first instance, and that the costs of mandating its use solely for the purposes of the Certification Form would not be outweighed by the benefit. We believe that FinCEN's reasoning is equally applicable to the majority of the world's credit unions, which have an average asset size of approximately USD 26 million in total assets.

Federation of European Securities Exchanges[11]

The Federation of European Securities Exchanges (FESE) represents 36 exchanges in equities, bonds, derivatives and commodities through 19 Full Members from 30 countries, as well as 1 Affiliate Member and 1 Observer Member.

Requirements for FESE members in relation to LEI were introduced with the application of MiFID II/MiFIR on 3 January 2018, as European trading venues are required to identify each issuer of financial instruments traded on their system with an LEI and provide this information to ESMA and/or their national competent authority.

The Federation of European Securities Exchanges asks the FSB to clarify two inconsistencies - non-EU issuers have no obligation for issuers to obtain LEIs but trading venues are required to report LEIs for all tradable instruments; and there is no consistent approach to the application of LEIs to investment funds.

[11] https://fese.eu/blog/feedback-to-fsb-on-lei-implementation/