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GROWING RELATIONSHIPS THROUGH DATA



Introduction

The Legal Entity Identifier (LEI) – the free-to-use entity identifier - has established itself as a viable standard for helping financial institutions identify unique business entities that are parties to financial transactions. But it's widely accepted to have its limitations. In particular, a lack of standardization and ability to link to associated data sets is hampering its usefulness.

Indeed, this lack of linkages - to associated third-party data, corporate hierarchies and beneficial ownership information – hampers the ability to see a consistent consolidated view across parties, resulting in major repercussions on a firm's ability to raise and use capital, and indeed comply with emerging regulations.

But alternative and complementary solutions are available. Long before the advent of the LEI, commercial suppliers were issuing identifiers for corporate entities, often covering a much larger population of companies than is even envisaged under the LEI initiative.

This paper discusses what's needed to deliver on the promise of an entity-centric view of enterprise data in one place. It looks at how firms can use independent data sources to augment the LEI and meet their entity data needs. By using what's available today, firms can meet their regulatory obligations while at the same time enjoy true business benefits in terms of improved risk management and better customer service.



The Global LEI: The Story So Far

The Legal Entity Identifier (LEI) is a free-to-use standard entity identifier that uniquely identifies parties to financial transactions. It was borne of the need, in the wake of Lehman Brothers' failure, for firms to understand their exposures to third-party legal



entities - issuers, trading counterparties and customers - beyond that to which the industry had been accustomed or believed necessary. In fact, the market's lack of understanding and visibility contributed greatly to the billions of dollars of financial losses that were part of the credit crisis and led many participants to be unaware of their exposure to Lehman Brothers when it defaulted.

The result, as we now all know, was catastrophic financial losses at our most important capital markets institutions and a deep global recession that still influences today's economy. In a 2014 assessment, the US Treasury Department put total losses resulting from the credit crisis at some \$19.2 trillion. It's now widely accepted that financial institutions' failure to monitor their counterparty data played a significant contributory role.

Against the backdrop of these huge financial losses, the marketplace learned that the inability of regulators to track parties to transactions, measure their counterparty risk, and understand overall exposures with any speed was an impediment to the smooth and confident operation of the global economy. While previous attempts by the financial industry to create a common global entity identifier failed due to lack of collective intent, lessons from the financial crisis led to consensus among regulatory authorities and market participants on the need for a uniform global system for legal entity identification.

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The Role of the LEI in the Regulatory **Timeline**

Dodd Frank Act establishes the LEI as part of sweeping regulatory reform resulting from global credit crisis

National Association of **Insurance Commissioners** (NAIC) adds the LEI as a required field in insurers' transaction reports

The first pre-LEIs are issued

Commodities Futures Trading Commission (CFTC) adopts LEI for swap transaction reporting

LEI mandated for OTC derivatives transaction reporting under the **European Market** Infrastructure Regulation (EMIR)

Global LEI Foundation is established

Regulators and the regulated recognize the benefits today. Regulators are in a better position to measure and monitor systemic risk, and handle any resolutions. Financial firms are able to improve risk aggregation and reduce operational risks associated with reconciling the identification of entities. And all parties benefit from higher quality and more accurate, consistent entity data.

With the number of LEIs issued now exceeding 400,000, market participants expect the tipping point for wide-scale adoption to come when over one million LEIs are issued, or sooner if regulators mandate increased use of the identifier.

The latter is already happening. The National Association of Insurance Commissioners (NAIC), the standards-setting organization for the US insurance industry, was an early proponent, deciding in 2012 to add the LEI as a required field in insurers' transaction reports. The EU's Solvency II regulation, which came into force in January 2016, similarly identifies the LEI as the required standard for identifying entities insurance companies deal with in their investment activities.

Furthermore, regulations like Dodd Frank, which established the LEI in the first place, the European Market Infrastructure Regulation (EMIR) and the incoming Markets in Financial Instruments Directive II (MiFID II) are prescribing use of the LEI as the required entity identifier, impacting the broader sell-side financial community. Finally, the Basel Committee on Bank Supervision's BCBS 239 rule, which came into effect at the start of 2016, places strong emphasis on the quality of data inputs including entity data - to the risk management process.

But adoption comes at a cost. Industry think-tank JWG IT has estimated the first-year cost to a financial institution of registering 5,000 LEIs (to cover the risk reporting requirements of 500 base-level entities) at around \$6.25 million, with ongoing annual maintenance of up to \$3.2 million. The cost to a top-tier institution, however, could be much higher.

LEI Registration Fee Examples

The US Global Markets Entity Identifier (GMEI) utility operated by DTCC in collaboration with Swift charges \$200 for an initial LEI registration plus a charge of \$19 that is passed back to the Global LEI Foundation (GLEIF). The annual maintenance cost is \$100 plus a \$19 charge to the GLEIF.



The Role of the LEI in the Regulatory **Timeline**

European Banking Authority publishes a recommendation on the use of the LEL

European Markets Infrastructure Regulation (EMIR) mandates use of the LEI for trade reporting to a trade repository

Global LEI Foundation moves interim Global LEI System into full production

EU's Solvency II regulation names the LEI as the required standard for identifying entities involved in investment activities

BCBS 239 does not mandate use of the LEI, but emphasises quality of data inputs including entity data into risk management

Markets in Financial Instruments Directive II (MiFID II) requires investment firms and credit institutions to include the LEI in transaction reporting

What's clear is that implementation of the LEI will cost the financial services industry significantly. But even for firms facing high levels of registration costs, the investment required is small compared with the risk assumed without it. As such, embracing the LEI represents a relatively modest insurance policy against the possibility of a Lehman Brothers-type failure. Deriving true value from the LEI, therefore, becomes an imperative that matches the regulators' quest for mitigation of systemic risk.

Shortfalls and Pain Points

The LEI was designed to help regulators measure and monitor systemic risk by identifying parties to financial transactions quickly and consistently, and obtaining an accurate view of their global exposures. Market participants are also using the LEI to improve risk management within their own organizations.

Specifically, they are adopting an entity-centric (rather than historically security-centric) view of their holdings, customers and customers' holdings. This manifests itself most visibly in financial institutions' more aggressive approaches to Know Your Customer (KYC) and sanctions regulations. In both cases, the beneficial ownership of any entity – whether a counterparty, client or issuer – will impact the risk profile of the institution.

Buy-side and sell-side institutions are proactively implementing ambitious entity data projects, with the LEI at their heart and the aim of mitigating the risk of financial penalty and operational losses from activities. For example, sanctions and screening of sanctioned entities require understanding of beneficial ownership of any entity with which a firm does business. This applies to the ongoing sanctions against Russia, Syria and the like.

Many in the marketplace had anticipated a broader data set from the Global LEI Foundation (GLEIF) than simply the entity identifier. To realize the promise of improved risk management, customer service and operational efficiency, practitioners need hierarchical data, beneficial ownership data and a raft of associated data sets like ratings, performance information and predictive indicators to create deeper understanding of relationships and potential exposures.

Acknowledging the lack of beneficial ownership and other useful data on the identifiers it issues, the GLEIF recently proposed that entities with an LEI will need to start including their ultimate accounting



consolidating parent, defined as the highest-level legal entity preparing consolidated financial statements, as well as their direct accounting consolidating parent.

Many in the marketplace had anticipated a broader data set from the Global LEI Foundation

The GLEIF notes that corporate parent data should be provided as part of the information necessary for an LEI to be issued, but does not include entities between direct and ultimate

parents, a gap that may be filled at a later date. The GLEIF intends for this basic reporting on hierarchy data to begin on some level in 2016. However, it is not a simple task to collect even the basic ultimate parent and immediate parent data, and even with this the GLEIF would still not include a full and complete corporate hierarchy.

In the meantime, financial institutions continue to feel the pain resulting from the lack of clarity around entity ownership and hierarchical relationships. This lack of clarity hurts financial institutions on a number of levels. The ability to identify entities with which they do business is critical to financial institutions' ability to fully understand their risk exposures to customers, issuers or trading counterparties. Furthermore, this relationship extends to many levels, as access to linkages to associated data and hierarchical ownership information is essential to establishing full understanding. With competitive advantage in their risk management capabilities sometimes the deciding factor in winning new client business, buy-side and sell-side institutions deem this improved clarity to be a potential game-changer.

LEI Reference Data

The LEI is a unique 20 digit alphanumeric code based on the ISO 17442 standard. This standard specifies the minimum reference data that must be supplied for each LEI:

- The official name of the legal entity as recorded in the official registers
- The registered address of the legal entity
- The country of formation
- Codes for the representation of names of countries and their subdivisions
- The date of the first LEI assignment, the date of the last update of the LEI information, and the date of expiry, if applicable.



All this becomes particularly crucial when it comes to capital adequacy provisioning. The Basel III principles require firms to set aside capital based on the risk of default of counterparties. In the case where institutions are not able to fully identify the counterparty, Basel III requires that 100% of their exposure be set aside as Tier 1 capital. At best this has major repercussions on the firm's ability to generate trading profits, and at worst represents an existential threat.

Regulators are severely penalizing institutions failing to meet reporting requirements. The UK's Financial Conduct Authority (FCA) has led the charge against reporting transgressions in recent years, fining Deutsche Bank more than \$7 million, Societe Generale \$2.4 million and - with the biggest penalty yet for transaction reporting failures -Merrill Lynch International more than \$20 million.

What's clear is that the absence of valueadded data as part of the Global LEI System is hindering firms' ability to identify the risk issues that regulators have been seeking to address since 2008

Since 2008's global credit crisis, all financial institutions have elevated the priority placed on their internal risk management capabilities to unprecedented levels. So just as is done with managing clients' risk, the same basic principle applies to broader risk management

within financial institutions; understanding counterparties, clients and issuers is key to sound risk management. This necessarily requires knowledge of these entities' corporate structures, country of origin, credit ratings, industry classification, physical location and sanction status. Without these insights, the financial institution cannot understand its exposure to any given entity. And to draw together this information, the institution needs a clear, unambiguous identifier from which to link to the required data sets.

What's clear is that the absence of value-added data as part of the Global LEI System (GLEIS) is hindering firms' ability to identify the risk issues that regulators have been seeking to address since 2008. And although the GLEIF is progressing with plans to expand the system's coverage, both in terms of numbers and depth, financial institutions are under growing pressure internally and externally to adopt a more entity-centric view of their activities.



How Financial Institutions Benefit from **Enhanced Entity Data**

With regulators breathing down their necks, financial institutions across the board don't have the luxury of waiting to act. To meet the growing regulatory requirement for greater - even comprehensive - understanding of the entities they do business with, financial institutions are migrating to an entity-centric view of their data.

Aside from the regulatory imperative, the industry stands to benefit significantly if it can succeed in making this shift (see table below). Establishing an entity-centric view - enabling a firm to aggregate and assess total exposure to any given counterparty or issuer – is essential for any financial institution seeking to track credit limits, monitor capital allocations or calculate collateral against possible default. Without such a view, institutions will not have the data or controls necessary to effectively manage risk at the level that is now required.

This undertaking can be complex, institutions must consider exposures to listed securities and to any listed or unlisted derivatives associated with those securities. These often extend across different execution venues and clearing systems in multiple geographic locations under multiple regulatory regimes (and hence measures of risk), further compounding the difficulty.

Table: Benefits of enhanced entity data

Benefit	Focus Area
Regulatory Compliance	Meets new requirements, such as Basel III, Solvency II
Internal Risk Management	Improves use of capital, enhances controls and reduces costs
External Risk Management	Provides competitive advantage for improved client acquisition and retention, tracking of credit limits, monitoring of capital allocations or calculating collateral against possible default
Trade Processing	Improves efficiency, reduces fails and cost, requiring fewer reconciliations across internal databases and systems
Corporate Actions	Improves efficiency, reduces cost of errors associated with missed activity or inaccurate records
Client On-Boarding	Harmonizes across disparate systems and processes in different geographies
Client Profitability	Yields greater knowledge of clients' holdings and business activities improves customer service



Again, the LEI may form the foundation for firms' entity data initiatives, but a far more wide-ranging and richer set of data is required to achieve the completeness needed to meet today's standards. This includes beneficial ownership information, valuations and evaluated pricing, fundamental and historical financial data and research, ratings data, credit analytics, legal filings and more, all of which are used as key components of sophisticated analytics to establish the new basis of understanding entity management.

Firms are realising there are synergies between their regulatory obligations and real business benefits that can be derived from a robust approach to value-added entity data

Once they've established a greater understanding of the entities involved in their lines of business. buy-side and sell-side firms across the board will reap benefits from better operational risk management. Robust and comprehensive entity data holds the promise, for example, of reducing the number

of costly reconciliations across internal databases and systems. Further, it will cut the number of trade failures due to incomplete, inaccurate or missing counterparty data, saving tens of millions of dollars in security lending fees associated with covering these fails. Another benefit is the enabling of reliable and consistent processing of entity-level corporate actions such as mergers and acquisitions, the inefficiency of which has been a historically consistent pain point for the industry.

This approach will also harmonize client on-boarding across multiple systems and processes in different geographies. And, crucially, it will increase accuracy of identification in risk aggregation and categorization of exposures, thereby reducing levels of regulatory capital under Basel III and Solvency II capital adequacy rules.

Finally, optimizing entity data results in a greater knowledge of clients' holdings and business activities, and an ability to understand the profitability of each client. This holds the promise not only of improved operational risk – as prescribed by regulators – but also customer service levels and indicates which clients should be given more or less attention.

Beyond the use of the LEI for mandatory transaction reporting, its use internally by financial institutions as a foundation stone for entity data initiatives is becoming a reality. Firms are realising there are synergies between their regulatory obligations and real business benefits that can be derived from a robust approach to value-added entity data. It's clear, however, that firms will need a variety of internal and publicly available entity identifiers, third-party data and hierarchy and ownership data to be linked to the LEI if its promise is to be fulfilled.



How to Add Value to the LEI

The marketplace accepts that the LEI is on course to become a critical cross-reference identifier, assisting firms with their entity data initiatives and providing the building block for a comprehensive identifier set across all required entities. But it also recognizes that third-party data suppliers are required to augment the LEI so that financial institutions can realize its full potential as a solution to the challenges posed by regulatory reporting and operational risk.

But what's needed? And how can institutions integrate all available data sources and data types with the LEI?

A checklist of data types that financial institutions need to flesh out their entity databases and create a full and complete corporate hierarchy of entities they deal with should include the following:

Data Type	Key Benefit
✓ Beneficial ownership information	Provides better understanding of clients and counterparties, resulting in improved risk management, more comprehensive screening and regulatory compliance
✓ Valuations and evaluated pricing	Allows valuation of hard-to-value illiquid securities for improved risk management and capital allocation under new regulations and regulatory guidelines
✓ Fundamental data	Supports analysts' qualitative evaluation of holdings, issuers and counterparties, mitigating operational risk
✓ Historical financial data	Allows improved risk analysis, investment analysis
✓ Research	Underpins detailed financial modelling, better decision making and investment strategy
✓ Ratings data	Provides clarity on entities and credit/counterparty risk analysis
✓ Credit analytics	Yields better understanding of entities and exposures to potential defaults
✓ Legal filings	Provides clarity around beneficial ownership and corporate events
✓ Fund data	Improves performance measurement, investment decisions



Bringing these disparate data sources into a coordinated framework for entity data management can pose a significant challenge. One solution is to match the LEI with another identifier that ties the entity in question to other appropriate data that has been fully cleansed and verified. In this case, the extended data set can be used to make the LEI data more accurate and relevant before integrating it into operational workflows.

These data sources can be integrated with the LEI by creating dynamic cross-references between the sources' identifiers and the LEI. This integration can be built and maintained using primary contact information such as the entity name, registered address, headquarters address and so on.

According to one senior data manager at a Tier 1 global bank, "At the moment, the LEI is a mapping exercise. Only a limited number of LEIs have been issued and my database holds over one million identifiers. The LEI can provide value in niche corporate markets, but for us it is a big mapping exercise and getting bigger."

The LEI can provide value in niche corporate markets, but for us it is a big mapping exercise and getting bigger," says an entity data manager at a Tier 1 bank

Other variations of this approach can help solve specific problems, for example in the funds segment. Some fund vehicles issued by a specific entity may themselves register for an LEI. Although these sub-funds may not be considered legal entities in

the framework of many proprietary entity identifier structures, they are for the purposes of the GLEIS. To clear up potential confusion, firms are cross-referencing the LEI to other entity identifiers, or where they're not available – such as in the case of some fund vehicles – they are linking instead to the vehicle's securities identifier.

In short, by establishing linkages from the LEI to other identifiers like Dun & Bradstreet's D-U-N-S Number, firms are creating comprehensive entity hierarchies and linking to value-added information for a complete view of the entities they work with.



Call to Action: What Can Be Done Now

Financial institutions need to act now to satisfy the growing regulatory requirement for full understanding of the risks they are exposed to. Taking an entity-centric view of their lines of business helps them meet the regulatory requirement and establishes a robust framework that improves processes and reduces operational risk.

The GLEIS holds promise as the foundation for an entity-centric approach, but market participants recognize that its coverage is not yet comprehensive enough to meet their needs. They are solving the issue by mapping the LEI to more comprehensive identifier sets, which in turn offer linkages to internal and third-party data that allow them to create entity hierarchies and assess risk exposures.

Established entity identification systems have broad coverage in place. These sources paint a picture of an entire global organization across its entities. This comprehensive set of data gives financial institutions a more complete view of their credit exposures. By connecting via a third-party identification system, firms can build an entity-centric approach to credit and risk information based on the LEI identifier. By linking to financial information, credit ratings, fundamental data and other sources of performance and credit information, they can build a comprehensive view of risk exposures to clients, counterparties and issuers.

Financial institutions can act today to put in place a framework for meeting the expanding regulatory requirement for credit risk information, while at the same time immediately benefiting from improved risk processes.



Conclusion

Recent regulatory initiatives indicate a growing propensity among regulators for adopting the LEI as their preferred standard for legal entity identification. Going forward, it's highly likely that any new regulations particularly those involving credit risk mitigation or sanctions on specific entity types - will require regulated firms to use the LEI to identify targeted entities.

Notwithstanding the regulatory imperative, the LEI holds the promise of offering significant business benefit to users if they can integrate it with third-party data sets that can add value to the base data set.

While the GLEIF believes that parent data should be included in the baselevel LEI data, the GLEIS doesn't currently include links between direct and ultimate parents. The GLEIF expects this reporting on hierarchies to begin in 2016, but acknowledges that it is no trivial task. Even with the basic ultimate parent and immediate parent data, the GLEIS would still not include a full and complete corporate hierarchy.

In the meantime, by linking the LEI to value-added data sets and establishing a greater understanding of the entities involved in their lines of business, capital markets institutions stand to gain in a number of ways, including:

- ✓ Better operational risk management
- ✓ Reductions in costly reconciliations between internal systems and databases
- ✓ Harmonized client on-boarding across multiple systems and processes in different geographies
- ✓ Greater understanding of clients' holdings and activities to improve the measure of profitability of each client and organize business accordingly

Capital markets institutions need to embrace the value-added entity data in order to achieve their goals, as noted above. Doing so requires them to link a variety of internal and publicly available entity identifiers, third-party data and hierarchy and ownership data to the LEI.

Matching the LEI to another established identifier that already has links to the required data sets will provide a straightforward solution. Establishing a dynamic cross-reference between the appropriate identifiers based on critical contact information will enable the effective integration of LEI and the extended data set. This is what the industry needs to derive the true business value from the global LEI.





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