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## ☒ can a globally endorsed business identity code be the answer to risk data aggregation?

by **Allan D. Grody**

The financial crisis and its aftermath taught us that the activities and risks of global financial institutions transcend sovereign boundaries of regulation. It also taught us that the ability of regulators to observe risk building up in the financial system is critically dependent on a more granular and timely view of aggregated financial transaction data. Regulators embraced these revelations and embarked on a series of published consultations to define global initiatives that would **standardize and uniquely identify market participants** and their contracts and financial instruments. These standards would be embedded in financial transactions and used to identify and aggregate financial transaction data. It would make possible the long-sought means to efficiently aggregate data into meaningful and timely input for analyzing any single firm's enterprise risk and, ultimately, multiple firms' systemic risk.

A fundamental observation of our digital era is that the financial industry has evolved to rely almost completely on a technology-based ecosystem. Information technology has increasingly replaced human involvement in the life cycle of financial transactions with software applications operating across globally networked computers. This level of automation in financial services gives the appearance of a smoothly functioning digital-age industry where straight-through-processing rules, human interaction is minimized, algorithms control trading, and risk models mitigate risk.

In reality, the smooth functioning of all of these automated processes is dependent on improvements in a fundamental pillar of finance, data standards. Multiple handoffs of financial transaction data amongst and between financial institutions, regulators, and hundreds of financial market utilities relies on translating thousands of non-standard data elements, including hundreds of identifiers for the same financial market participants.

In the aftermath of Lehman Brothers failure in 2008 it was revealed that neither Lehman nor its regulators; nor its clients, creditors and counterparties had a common understanding of the risk exposure that existed at Lehman. That common understanding required a common identifying code that computer software could interpret as Lehman Brothers. That this did not exist over all the generations of technology that financial systems evolved through was a revelation to all.

This revelation drove the Group of Twenty's (G20's) newly appointed global standards body, the Financial Stability Board (FSB) in 2010 to sanction a series of global data standards initiatives. This included the **global legal entity identifier (LEI) initiative**, a unique, unambiguous and universal code for business entities participating in the financial system. This was to become a universal standard to eventually replace all proprietary codes used to identify business entities across the global financial supply chain.

Another significant lesson learned from the global financial crisis was that banks' information technology and data architectures were inadequate to support management of financial risks. Because of weak risk data aggregation capabilities many banks lacked the ability to aggregate risk exposures and identify concentrations quickly and accurately at the bank group level, across business lines and between legal entities. This required a more granular view of risk, a view at the transaction level to compliment the position and balance sheet levels that were the cornerstone of the global risk agenda to that point.

Without computers knowing the precise digital fingerprint, the **'financial barcode'** of a financial transaction, too many automated processes fail, manual reconciliation intervenes, delays in payment occurs, risk and costs increase, and the vision of a seamless automated supply chain remains unfulfilled. To compound the problem, a formal discipline of risk management had been imposed by regulators on a mainly unintegrated technology ecosystem that embodies legacy software applications running back, middle and front office operations of both financial service firms and financial market utilities. Data mapping of thousands of non-standard digital fingerprints between these systems adds to quality deficiencies in risk data and significant time delays in risk reporting.

The Bank for International Settlements' Basel Committee on Banking Supervision (BCBS) has stepped in and asked regulators to oversee formal technology upgrade programs and data aggregation processes for financial institutions. The initiative is known as **BCBS239** (Principles for effective risk data aggregation and risk reporting). BCBS239 has generated new and significant demands for data standards and technology upgrades at financial institution. It suggested that the use the LEI would facilitate its risk and data aggregation framework now being implemented by the global systemically important banks (G-SIBs).

In the US, pending legislation **H.R.1530 - 115th Congress (2017-2018): Financial Transparency Act** calls for common identifiers for information reported to financial regulatory agencies or collected on behalf of them. This includes a common legal entity identifier (presumably the LEI but not specifically referenced in the legislation) and common data formats. Prior attempts to have each of the eight (8) major regulatory agencies under the **Financial Stability Act of 2010** (also known as the Dodd-Frank Act or the Wall Street Reform and Consumer Protection Act) initiate their own mandates proved unmanageable.

Finally, the FSB recently completed a consultation, a **Thematic Peer Review of the LEI** in which they solicited **input from industry members** and analyzed responses to a questionnaire developed by regulatory members to survey their individual constituencies. In summary, the FSB sees LEI adoption in absolute terms as relatively low. The issuance of LEIs is mainly concentrated in Canada, the EU and the US where it is estimated that coverage ranges from 2% to 7% of all eligible legal entities in their respective territories.

In these three territories, the FSB states that the LEI has come the closest to meeting the G20's objective. However, the initial and single most important use of the LEI was to be in trade aggregation across sovereign borders in OTC derivatives markets. Trades with the LEI included, along with associated financial transaction data, are being reported to one of twenty-five (25) trade repositories. **Aggregation across these repositories is not yet functional** even though 1.4 million LEIs have been issued, mainly for participants in the OTC derivatives markets.

A broader adaption of the LEI is necessary along with standardization and use of a unique product identifier (UPI) and unique transaction identifier (UTI). These three identifiers along with standard critical data elements comprising the components of an OTC derivatives trade are required to be reported to these trade repositories before meaningful data aggregation and risk analysis can be conducted.

The FSB states that such low issuance of LEIs limits the ability to effectively support further regulatory uses. Those regulatory uses was set for it by the G20 when they requested “global adoption of the LEI to support authorities and market participants in identifying and managing financial risks”. To realize this objective each financial transaction, originated within a FSB member jurisdiction, must contain the LEI of each financial counterparty, each financial reference entity and the LEI of the transactions’ supply chain participants. Without such a common financial market participant identity, universally applied, the buildup of a contagion leading to systemic risk cannot be detected, nor can individual risks of financial institutions’ common counterparties be assessed.

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