



# Barcodes of Finance

**A Research Note by  
Financial InterGroup**



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### Contents

A Brief History .....	3
Data Aggregation – the End Objective.....	3
Registering a Domain ‘Name’ for an Entity.....	3
Stepping Away from a Legacy Mindset.....	4
To Conclude .....	4
Financial InterGroup Principals.....	5
Allan D. Grody.....	5
Peter J. Hughes .....	5
Contact Us.....	6

## **A Brief History**

After the financial crisis of 2007-2008 an initiative to stabilize the global economy was taken up by the G20, a heads-of-state run sovereign government member organization representing 95% of the world's GDP. A farsighted pre-requisite to that global initiative was undertaken by its newly appointed Financial Stability Board (FSB). That initiative we call the Barcodes of Finance, a fundamentally transformational recognition that observing the contagion of systemic risk building up in the financial system needed a data aggregation mechanism. Its pillars were to be standard identification and tagging conventions and standardized data sets that made up financial transactions.

The first standard, the legal entity identifier (LEI) was rushed into production when the CFTC approved the ISO 20 character legal entity identifier 'vessel'. That standard allowed any manner of code construction, excepting that the first 18 characters were to be arithmetically manipulated to produce the last two, known as self-checking check digits to minimize transcription errors. The FSB took up the code construction later at the global level, made some significant changes, and proceeded to assign codes to participants in the financial supply chain of swaps transactions.

The legal entity identifier (LEI) code itself is referred to as a 'dumb number' (it has no reference to the registering parent). In addition it is accompanied by a name & address for each identified participant in the financial supply chain. Later some means to associate it with its parent would be provided to allow for data aggregation up to its controlling entity for risk analysis. The first test of its use was to be in the newly regulated global swaps markets, along with two other parts of the Barcodes of Finance, the unique product identifier (UPI) and the unique transaction identifier (UTI). These later two have been rushed into production with no coordination as to its structure or its ability to be used in data aggregation.

The result was predictable, billions of transactions being reported to swaps regulators with no means to access them or aggregate them...and certainly no benefit for industry members.

## **Data Aggregation – the End Objective**

To aggregate transaction data for valuation, performance and risk analysis these independently derived dumb codes have to be mapped together - product or contract codes horizontally for a total picture of a single asset position and the LEIs vertically through its hierarchies of ownership and control for an aggregated view of a counterparty. These processes are the same across all financial market participants and their products. These mappings are in addition to the mappings to the hundreds of proprietary codes required of data vendors and software companies so that financial institutions can ingest them into their business applications. To this later point the regulators promised the industry that these proprietary codes will be replaced over time with these Barcodes of Finance.

## **Registering a Domain 'Name' for an Entity**

If a company is given a globally unique registration code a 'company prefix' or registration domain and uses it as the prefix for assigning a suffix to each of its multitude of legal entities (many entities have thousands of legal entities) and to the many products it manufactures or issues, then we have an easy mechanism to link them together for data aggregation. This mechanism, placed directly in the codes will eliminate the additional costs of facilities operators, data vendors, software companies and so many other intermediaries now necessary to both assign and then map both proprietary and newly evolving

'standard' codes at significant operational costs and risks to the industry. It will give financial market participants the ability themselves, or their agents, to assign the same internal codes as is the external ones.

## **Stepping Away from a Legacy Mindset**

A legacy mindset is still with us, acting to restrict our newest opportunity, the development of the LEI to facilitate the ultimate requirement of new uses for data standards – that of data aggregation.

Without a hierarchical construct to the basic code structure for contracts, instruments and legal entities the mapping issue that causes so much cost and risk will persist and the regulatory objective of systemic risk analysis will go unfulfilled. Also without at-source automated input of data elements, as with financial statement filings using the XBRL tagging convention, that transform legal terms from enabling documents into computer readable formats, our industry will always suffer from data quality issues.

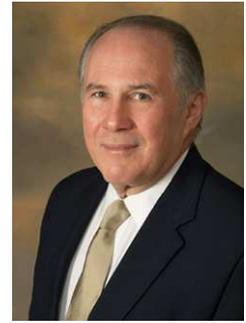
## **To Conclude**

Unique and standard identifiers, and standard data sets accessible by computer means through a tagging convention for both is the pre-requisite for financial stability objectives of the regulators. It is also a pre-requisite for fulfilling the promise of real-time straight-through-processing, significant infrastructure cost reduction and operational risk mitigation made to the industry by regulators.

## Financial InterGroup Principals

### Allan D. Grody

Allan is the founder of the Financial InterGroup companies. He has been active in the financial industry for nearly five decades and has had hands-on experience in multiple sectors of the financial industry. He advises on domestic (USA) and international issues related to financial institutions' global strategies, restructuring and acquisition needs, information systems, communications infrastructures and risk management systems.



In an earlier career, he was the founder and Partner-in-Charge of Coopers & Lybrand's Financial Services Consulting Practice, which was subsequently merged with Price Waterhouse and eventually sold to IBM. Professor Grody founded and taught the only graduate level Risk Management Systems course at NYU's Stern Graduate School of Business. He is a former founding Board member of the Technology Committee of the Futures Industry Association. He is currently an editorial board member of the Journal of Risk Management in Financial Institutions and a board member of the Blue Ribbon Panel of the Professional Risk Managers International Association. He writes, speaks and advises on issues where data management, risk management and technology converge. He has participated in expert panels sponsored by local and global regulators on these subjects.

### Peter J. Hughes

Peter is a Principal of Financial InterGroup and Managing Director of its UK based company. He is a former country/regional executive with JPMorgan Chase, Fellow of the Institute of Chartered Accountants in England & Wales, an advisory board member of Durham University Business School's Banking, Risk & Intermediation (BRI) research group and a Visiting Research Fellow at the Leeds University Business School (UK).



At Financial InterGroup he leads consulting projects and provides advisory and training services to some of the globe's leading banks, global IT and consulting firms, trade associations and banking institutes with particular emphasis on cross-enterprise risks, operational risk, Basel II & III, capital management (including the Internal Capital Adequacy Assessment Process - ICAAP), finance transformation, accounting (including IFRS), data management, risk measurement and management systems and risk based auditing.

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