

A Holistic View of Risk Across the Enterprise: How Data Linkages Help



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INTRODUCTION

Gaining a comprehensive view of their risk exposures has long been a challenge for financial institutions. Standard measures have been embraced to measure and manage market risk, and the emergence of a standard legal entity identifier in the form of the LEI has gone some way toward addressing the issues of counterparty and credit risk that underpinned the Credit Crisis of a decade ago.

But regulators anxious to avoid a repetition of the events of 2008 have tightened the rules around risk exposure and are increasingly requiring banks and other financial firms to get a more holistic view of their exposures to markets, countries, issuers and counterparties. Regulations like the EU's Solvency II and Basel's Fundamental Review of the Trading Book (FRTB) are requiring firms to institute measures that yield a clearer view of overall risk exposures across the range of their activities.

But firms continue to struggle to derive a holistic view of risk. This is due to complexity of operations and reliance on multiple data sources - both internal and external - to underpin their investment and trading operations. Moreover, regulators are no longer satisfied with mere risk measures; they want regulated firms to understand the full picture of the exposures they face, particularly as their operations become more global, and to be able to provide evidence of the analysis they use to create their view of risk.

As they address these regulatory and operational imperatives, firms are finding that entity identification - a cornerstone of their ability to understand the links between investment securities, issuers, counterparties and risk measures - remains a pain point within the industry.

Industry initiatives like the GLEIF's LEI have represented a major step forward in creating a standard way of identifying counterparties, issuers and beneficial owners. But entity hierarchies - required to link entities, counterparties and issuers with securities, thereby establishing beneficial ownership - were left to the marketplace for a solution. To date, they remain a challenge as - relatedly - does the lack of accurate and timely notifications on mergers and acquisitions (M&A) and other corporate activity.

While commercial entity hierarchy solutions exist, they have not been embraced by the marketplace. Part of the reason for this is the expense. Many commercial solutions involve 'hidden' costs in the form of the extensive reference data sets required to implement them. Meanwhile, financial institutions' own internal initiatives have also proved both expensive and difficult to maintain, particularly given the complexity of global operations and the often-siloed organisational structure of many large firms, both of which make it a challenge to identify the linkages across the enterprise required to provide a holistic view of risk.

This white paper examines the challenges associated with mapping the data sets needed to create a holistic view of market, country and counterparty risk, and discusses what's needed for addressing entity hierarchies and country of risk using a proactive and robust approach to data-mapping.

DRIVERS: THE BUSINESS CASE FOR A HOLISTIC APPROACH

One widely recognized characteristic of the Credit Crisis of a decade ago was the inability of financial institutions to identify the securities that they held, and in turn the issuers of those securities, thereby understanding their exposures to entities at risk of default. Most notably, Lehman Brothers had issued more than 10,000 securities, many of which weren't recognized by the marketplace as Lehman paper.

As a result, when Lehman failed, firms were unaware of their exposures until it was too late to act. At the heart of this systemic failure was the lack of unique identifiers for entities, and subsequent regulatory action focused on the creation of the global Legal Entity Identifier (LEI) standard.

While the LEI is widely regarded as a success - its use is now frequently mandated by regulators seeking to avoid a repetition of 2008 - it's also recognized that it is not sufficiently comprehensive to meet the market's need for blanket coverage. This is exacerbated by firms' increasingly global approach to trading and investment.

Moreover, the challenge of establishing linkages from entity identifiers to the security identifiers, needed to fully understand the identities of the issuers, were specifically left by the Global LEI Foundation for the marketplace to solve. The industry response has, until now, been piecemeal, leaving credit market and cross-asset participants with no reliable and comprehensive system for understanding their exposures to counterparties and issuers.

This creates a number of issues for practitioners. Most obviously, firms involved in credit markets need robust security-to-issuer links in order to mitigate risk of exposure to defaults. While this may be relatively straightforward with well-known names, as firms' activities become more global, the risk of failing to understand exposure to lesser known entities grows.

Regulatory imperatives

As well as the operational challenges of securing a holistic view of risk, firms are facing a growing legion of regulatory mandates that require them to gain a full understanding of the market and counterparty risk they are exposed to. The EU's 2016 Solvency II regulation, for instance, requires the insurers to get a measure of their investments' risk profile. This in turn requires their investment managers and asset servicers to provide the valuations data and risk calculations required to report to the regulator.

Solvency II's data requirement is embodied in three pillars. Pillar I describes the requirement for valuation of assets for capital requirement calculations. It requires access to high-quality, granular and accurate data relating to terms and conditions, pricing, curves and spreads for use in the regulation's Solvency Capital Requirement (SCR) and Minimum Capital Requirement (MCR) calculations, as well as credit ratings, classifications, security identifiers, and other meta data underpinning those data sets.

Pillar II describes the requirement for governance and supervision. It requires the creation of a governance structure that supports Solvency II's Own Risk Solvency Assessment (ORSA) obligation. Pillar II – the most comprehensive of the three pillars – requires insurers to stress-test their balance sheets using risk systems and much of the same data sets as Pillar I.

Finally, Pillar III describes the requirement for reporting, and the need for a detailed repository of internal data. From a data requirement perspective, insurers will need access to the CICs (Complementary Identification Codes) and NACE (Nomenclature statistique des Activités économiques dans la Communauté Européenne) non-standard instrument classification codes, as well as the LEI standard to support the regulation's Quantitative Reporting Template (QRT).

Although the regulation came into effect in 2016, practitioners continue to finesse their response. In particular, they have struggled to link the broad set of data sets required for compliance with Solvency II, with market offerings often too expensive or not comprehensive enough to handle their entire population of securities of interest.

Solvency II and other regulatory initiatives requiring a broad range of internal and external data sets for compliance, pose a particular problem for practitioners. This is accentuated as regulations change over time, adding new data requirements as well as changes to existing work flows.

Operational imperatives

The ability to link an entity (issuer or counterparty) to related instrument data has a number of compelling use-cases that translate into a growing operational imperative for many practitioners, particularly on the buy side.

Cross-asset traders with any sort of credit market activities need to be aware of the links between the securities they trade and the entities that issue them. Meanwhile, as they look for new opportunities, equity traders increasingly look for signals from the credit default swaps (CDS) markets, requiring them to understand the linkages between issuers of both security types.

Firms need an understanding of the parent/child hierarchy to properly assess debt exposure across the full capital structure, from bank loans to equity. Firms need a

holistic view of the risk, and linking these securities with their issuers and beneficial owners can facilitate aggregation of risk to give a comprehensive view - the full picture. This necessarily entails mapping debt and equity securities to their issuers, and then to instrument prices and valuations, as well as to indicators of risk, such as ratings and analysis.

For players in the fixed income and credit derivatives markets, who often look to movements in equity markets for signals, country of risk is a key requirement. While this appears straightforward on paper, there is no accepted methodology for identifying country of risk, even as globalisation is making this particular measure more complex. Firms need to understand where a corporate entity faces most risk. This can be difficult to figure when a company is registered in a tax haven, listed on a European stock exchange, but derives the bulk of its revenues from North American markets.

This calculation requires firms to understand the relationship between an entity and the securities it has issued, where they are domiciled and what they are worth. This requires the ability to link between entity identifiers - the LEI and others - security identifiers like the ISIN and more local symbologies, category identifiers like the NAIC (North American Industry Classification) and SIC (Standard Industry Classification), plus identifiers used by ratings agencies and specialist pricing services. Finally, they need to connect to firms' own internal symbol sets.

For some players, timeliness is the compelling driver. In the trustee/depository segment, many firms rely on manual processes that fail to meet reporting deadlines, leading to exposure to concentration risk. This situation can have implications for funds' remit and ultimate risk exposures, and speeding up processes using automation that draws upon properly linked data sets can help mitigate this.

In summary, the ability to link entity data with security identifiers, valuations, country of risk and ultimate beneficiary data is compelling for firms with cross-asset and / or geographically diverse portfolio holdings, whose credit and market risk exposures are often difficult to measure and manage.

CHALLENGES: OBSTACLES TO ACHIEVING ENTERPRISE-LEVEL RISK MANAGEMENT

A number of obstacles have conspired to prevent many financial institutions from achieving the degree of linkages they need to properly aggregate their exposures to give the holistic view of risk they require.

The complexity of many firms' operations - in terms both of geography and asset class mix - means they are reliant on multiple sources for the data they need to run trading and investment operations. Drawing upon numerous external data sources, often with their own sets of identifiers, as well as internal databases with their own data formats and symbol sets, firms need to manage interaction between them at various points in the trading workflow, which represents a significant challenge

Moreover, there are no standard methodologies for certain measures. Country of risk designations for example, differ between providers of this categorization. Mergers and acquisitions activity can render entity data sets obsolete, albeit temporarily, leaving a gap in firms' understanding of their exposures.

The number of corporate actions sources has mushroomed in recent years, making it difficult and expensive for firms to keep up to date with the latest corporate information that may impact their holdings. The volume of credit events in terms of defaults, meanwhile, has also increased, introducing similar challenges. As a result of this complexity, firms are struggling to maintain consistency and timeliness as they seek to identify, monitor and manage their risk exposures.

At the same time, firms are having to deal with the limitations of the LEI in terms of coverage and the absence of standard hierarchies. The LEI registration process is widely accepted as being too slow to keep up with firms requirements in the face of constant M&A activity. And creating and managing entity hierarchies is challenging; commercially available solutions are often expensive and limited in scope.

Firms have attempted to fill the gap with their own internal entity data sets, but very few succeed in implementing a truly comprehensive set of entity data. This is hindering firms' efforts to map their populations of issuers and counterparties to the securities they trade, manage and hold, and clouding the vision of a holistic view of risk.

Where firms have managed to source counterparty and credit risk information, such as company details, debt outstanding, market capitalization and country of risk, they often find they need additional sets of reference data to access and manage this information. This can add significantly to the overall data cost involved.

In summary, in their quest to establish a holistic view of risk, firms are facing a series of challenges around data-mapping, entity hierarchies, beneficial ownership, and country of risk. In most cases, it's not economic for these firms to build out solutions themselves, as this is not their core competency.

WHAT'S NEEDED: A NEW APPROACH TO ENTITY DATA LINKAGES

Growing regulatory and operational imperatives mean that financial institutions need to get serious about how they aggregate risk across all their activities. This is a particular challenge for the buy side as their reliance on the sell side for data and technology services recedes in the face of regulatory measures to improve overall transparency.

If firms are to succeed in getting a holistic view of market and credit risk, it's clear that they need to address the issue of data linkages across all asset types and between entity and instrument data. Many have components in place, but most are missing key data sets. What's more, pulling the various strands together represents a significant integration challenge that is outside of the usual core competencies of most financial institutions, especially on the buy side.

What's needed is a robust and reliable set of linkages that connect pricing and valuations for securities to entity ownership data. If firms are able to link pricing and evaluated pricing for credit default swaps, fixed income securities and equities, apply relevant qualitative measures like ratings, then make the connection between that instrument data and entity ownership information about the issuers, they could map entities to assets and issues, as well as pricing and ratings, creating a parent/child hierarchy. This would allow them to get a view of their exposures for the whole spectrum of trading and investment activities.

Once this capability is in place, firms could apply historical corporate actions data and other inputs to create unique risk analysis and future-looking analytics. Using linkages based on entity data as the foundation, financial institutions and third-party service providers could develop new insights into future risk factors, adding in new data sets as they become available.

This approach also addresses the issue of determining country of risk. What's important here is the transparency of the underlying rationale or methodology for establishing country of risk, which varies frequently between existing commercial providers. It's essential to understand the full set of components behind the country of risk calculation, particularly for firms actively following multinational corporations operating on a global scale in these times of geopolitical uncertainty.

INTRODUCING IHS MARKIT ENTITY LINK

IHS Markit Entity Link introduces the linkages between entities and key asset classes that allows market practitioners to take a holistic approach to managing their exposures to the Ultimate Parent level, allowing them to aggregate their market and counterparty risk profiles and get a clear view of country of risk for the issuers of the securities they trade and hold.

The new service maps IHS Markit's entity database and the global LEI to credit default swaps (CDS), fixed income and equities pricing and valuations data, ratings and other data sets that provide insight to the risk profile of issues and issuers.

The Entity Link service is the first economically viable, commercially available solution for mapping the bulk of issues and issuers in global derivatives, fixed income and equities markets. The service focuses on liquidly traded securities, offering a large universe of investment managers and their service providers the data they need to fully understand their risk exposures from their ongoing trading and investing activities.

Including key features of IHS Markit's firmly established CDS, government and Corporate bond, Equity and loan reference data offerings, Entity Link requires no expensive add-ins or additional reference data subscriptions and can easily be combined with pricing services. The service offers coverage of over 7.5 million Financial Instruments spanning over 20,000 entities in the fixed income market, representing the base universe for many players in the OTC derivatives and adjacent markets. It includes IHS Markit's own industry sector classifications, as well as the market-accepted NAIC and SIC codes and allows users to formulate their own country of risk methodologies.

Entity Link's open format means it can work with any external identifier set, including market solutions from the main commercial providers and clients' own entity and security symbology sets.

Using Entity Link, clients are able to:

- Establish mapping and linkages between data sets across multiple asset classes for both securities and entities.
- Understand corporate hierarchies of issuers and counterparties.
- Discover and create country of risk methodologies.

ABOUT IHS MARKIT

IHS Markit (NYSE: INFO) is a world leader in critical information, analytics and solutions for the major industries and markets that drive economies worldwide. The company delivers next-generation information, analytics and solutions to customers in business, finance and government, improving their operational efficiency and providing deep insights that lead to well-informed, confident decisions. IHS Markit has more than 50,000 business and government customers, including 80 percent of the Fortune Global 500 and the world's leading financial institutions. Headquartered in London, IHS Markit is committed to sustainable, profitable growth.

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For more information, contact: sales@ihsmarkit.com or visit www.ihsmarkit.com/entitylink.



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