

Institutional Investor  
**EDM: The Road Map Ahead**  
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The current crisis in the financial industry (including all of its regulatory fallout) is good news for data management. It is providing the motivation to elevate data management as a business priority. The regulatory interest is on operational risk as well as the importance of global counterparty and exposure management. It emphasizes the requirements related to multiple hierarchies and linkages. And it illustrates the importance of being able to slice, dice and reconnect data according to multiple scenarios.

And all of these activities are (of course) data dependent. The bottom line is that market authorities and regulators can't provide market stability oversight if they can't analyze what's happening. Data precision and flexibility are needed to perform "what if" scenarios and to make the appropriate ad hoc connections needed to obtain a clear and consolidated view of exposures and risk.

I have been an active observer of the industry's efforts to get control over the core reference data for quite a few years. And while financial institutions have been making reasonable progress in their efforts to fix the gaps and overcome the shortcomings, I would characterize their efforts as mostly incremental, internally focused and tactical.

But, this crisis has changed the dynamic. As a result of unprecedented turmoil in global financial markets, we are now seeing a new focus on the underlying principles of enterprise data management; renewed conversations on standards, naming conventions, entity identifiers and content tagging; a growing interest in data manufacturing processes and supply chain management; and even regulatory-led discussions about source mark-up and the need for a global reference data repository.

### **Current State of Data Management**

Before we get into the dynamics associated with the next stage of data management, we should pause for a moment and take stock of where we collectively stand as an industry in managing data content. And, for the most part, the data story is reasonably positive. Data is recognized as a critical objective and as the core factor of input into business processes. Most financial institutions have some form of data management program underway and a few are starting to reap the benefits of managing data as an enterprise-wide asset.

Beneath the good news, however, are some real organizational challenges. Most companies take a very tactical view of data management. Data is still considered as a low level concern – understood at the abstract level, but flying underneath the strategic radar. And even though there has been a lot of productive conversation about EDM, most firms are not that far down the prime directive path of getting trusted data delivered and integrated into business applications.

The truth of the matter is that there is a significant data quality gap in our industry. It is a natural evolutionary result of years of mergers, acquisitions and internal realignments. It is exacerbated by business silos and inflexible IT architectural structures. And it is still a “wicked problem” because of the difficulties unraveling and reconnecting systems, processes and organizational environments that are required to rid ourselves of this bad legacy while maintaining the continuity of business.

Add to this the fact that financial institutions are (like any other large organization) difficult to align. Even with the best of intentions, we’re still grappling the challenges of governance in federated environments ... coordination among stakeholders ... funding challenges in the face of cost containment ... short term and narrow views ... the lack of a composite picture on workflow ... functional myopia ... the challenges of unconnected databases and spreadsheet proliferation ... the allure of point solutions and tactical workarounds ... battles over internal priorities ... the politics of survival ... the list goes on.

The reality is that while we all conceptually understand the importance of data management, it is incredibly hard to do, expensive to integrate, difficult to incorporate into existing environments and still just another task to perform within financial institutions. So to be perfectly candid, managing data content as a strategic asset is still a concept in its early stages of maturity.

But data gaps are not just a problem brought about by financial institutions. The process is also confounded by an inefficient and fragmented chain of information supply. Just to illustrate the point, much of the data that resides in the master files of firms is factual. It originates in some form of legal document and was precisely created by lawyers and accountants. So it was “perfect” when it was created. Then multiple vendors independently acquire the content, transform it to fit into their source systems and rename it using internal term definitions and nomenclature. Individual business units of financial institutions then source it from multiple vendors and transform it to match their internal environments using their own tags and identifiers. As a result we have content that is non-comparable and not precise enough to promote trust and confidence that it is fit for purpose for data intensive applications.

### **Get the Foundation Right**

The pathway to resolving the data challenge can be daunting because the mosaic is complex. But there is a common thread to solving both the financial institution goal of better data management and the regulatory objective of risk analysis and oversight. And that common thread is the precise identification of the three primary factors of input – namely financial instruments, business entities and data attributes. These are the raw materials and the foundational building blocks from which everything else is constructed.

Financial instrument identification is the most mature standard within the industry and offers a lesson that can be applied to the other identifiers that are needed. In the late

1960's the US financial industry was experiencing what later became known as the "paper crisis." This came about as the industry struggled to match up securities using various identifiers. The lack of a common identifier resulted in transactional mismatches and lots of manual reconciliation. Growing trading volumes and the requirements for automation increased the urgency of the problem.

To deal with the challenge, the industry met under the auspices of the American Bankers Association and developed the CUSIP identifier to facilitate the automated processing of transactions. CUSIP was later extended to an international standard (ISIN) to address the requirements of cross-border trading. And even though some problems (i.e. identification of derivatives, short term instruments and multiple listings) remain, standard securities identifiers are now a requirement for doing business.

The problems of unique instrument identification has now been extended to the identification of business entities (for KYC, risk mitigation and exposure analysis) and for data attributes (to facilitate comparison of multiple data sources and to ensure that the correct inputs are used for models, reports and applications).

From a business entity perspective, ISO standards exist for entities involved in transactions and payment processing. But some critical ones are missing - particularly those for corporate entities that play an active role in financial transactions (i.e. issuers, guarantors, obligors); service and data providers, collective investment vehicles acting as issuers of funds; government bodies; regulators and payment system participants.

The lack of these industry standard identifiers makes it difficult to create links between entities, issues, funds and counterparties. It makes it hard to automate post trade and accounting processes. It presents challenges related to grouping entities to assess exposure and determine credit limits. It makes it hard to perform due diligence for account set-up and client on-boarding. It inhibits our ability to extract ad hoc transactional and relationship information, and to maintain internal and external cross-references, and to keep up with changes in corporate actions.

Data attribute identification is even more important. There are hundreds of unique data attributes associated with financial instruments for set-up, pricing and corporate actions maintenance. These are delivered by scores of internal and external sources and stored in dozens of unconnected databases.

Inconsistent terms and their definitions makes it very difficult to compare data and hard to set precedence rules at an attribute level. The lack of precision makes it hard to automate processes and a challenge to precisely specify business requirements. In our industry, complex analytics, new source addition, automated models and data interchange all require content precision. This problem is out of place for an industry that operates in real time, on a global basis, with high volume transactions, for a wide range of complex instruments and with an increasing need for process automation.

## **The Pathway Forward**

So, what have we learned and what does it mean in terms of moving forward?

From my perspective, we've learned a lot. We've learned about the importance of data precision. We all understand that we live in a complex world and that precise data is critical to help us understand and deal with market complexity. We've learned that lots of things are interrelated and that it is hard to unravel all those linkages. Plus, we've learned that some of the critical standards that we need to analyze, compare and communicate are missing.

We've learned that financial institutions are complex entities that generally focus on the short term and from the perspective of their individual business silos. We've learned a lot about human behavior and the ugly truth about the politics of survival. As a result, we're not really structured to address the root cause of problems. We're much more comfortable with tactical fixes that help us keep up with the pace of business.

And for the final dimension to all this, we've learned that our global regulatory environment wasn't structured to deal with market complexity, globalization or the true nature of how things are interconnected. We've learned that our market authorities are as siloed as our financial institutions and generally unable to turn the flood of data into an oversight mechanism to protect us from ourselves. And it is this final lesson that gives me a sense of optimism for the future.

Over the past few months, I have been fortunate to have been part of a plethora of conversations with regulators, legislators, central banks and groups both in the US and Europe. And based on those conversations, I see the emergence of a new form of regulatory cooperation including alignment on some essential principles associated with how we ensure market transparency, promote market stability and address systemic vulnerabilities.

And this regulatory cooperation is leading us down the pathway of better management of the chain of supply in the financial information industry. And supply chain management is essential because everything we do in the financial industry has a legal and contractual basis behind it. And since everything is legal, the pathway is clear. Capture precision at the point of origination. Tag these legal and contractual documents when they are created using industry accepted standards (note: there is positive news here, but that's another story). Forget the concept of "golden copy" as the means of data quality redress and focus on the concept of "golden origination." The goal is to avoid the multiple layers of transformation and achieve STP of the factors of production.

The European Central Bank has been the most vocal entity in leading this charge. But they are not alone. And not only are they advocating the concept of source mark-up, they (and their regulatory brethren) have the mechanism to make it the law of the land. They are in position to compel issuers and their agents to mark-up their contractual documents and to make them responsible for its maintenance all throughout the lifecycle of the instrument. They have the means to establish a public reference data utility so that

the clean data is available to the financial industry, the market authorities and the general public.

The reality is that the financial crisis has underscored the importance of accurate and consistent data for risk oversight and exposure analysis across companies and markets. One of the few positives emerging from this situation is to elevate awareness of the need for more robust information sharing and harmonized disclosure. At the root of this pathway is precise identification of instruments, entities and data attributes. These are the tools to help market authorities understand the levels of vulnerability that exist in the banking sector and in the financial markets across the globe.

The net result of all this is that with better supply chain management, quality goes up and cost comes down. Opportunities like this don't come around very often, and to quote Victor Hugo ... "nothing is more powerful than an idea whose time has come."