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BUSINESS ENTITY IDENTIFIERS The Crucial Foundation for Accurate Risk Management

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An industry briefing prepared by A-Team Group for

STANDARD & POOR'S

Executive Summary

As the financial world continues to grapple with the fallout of the credit crisis, one thing is clear: managing risk is now paramount to the surviving financial institutions. But you can't manage what you don't know.

Many financial institutions have been caught in the current environment through a lack of awareness of their true exposure to risky investments, and ultimately to those entities which defaulted, leading to record losses and write-downs across the industry.

But how is it possible for financial institutions, particularly in this age of high technology and innovation, to have been ignorant of the full extent of the risk to which they were exposed? And more importantly, how can we address some of the fundamental issues leading to this situation to ensure it does not happen again?

An essential building block for understanding true exposure is the ability to identify the exact business entity with which you are dealing. As well as being able to accurately identify the entity, it is important to understand the way an individual entity may be linked into another one so hierarchical linkages are necessary also. Without this understanding, you cannot measure or manage risk accurately.

While a seemingly obvious issue, there still remains no prevailing industry standard approach to identifying business entities. Despite several attempts, a satisfactory solution has yet to emerge.

But there is an immediate and pressing requirement from financial institutions for a usable global enumeration standard for business entity identifiers. Getting risk management houses in order is a clear driver, but this also comes against the backdrop of the anticipated onslaught of new regulations that financial institutions will have to contend with, along with the ongoing need to improve operational efficiencies, reduce errors, and reduce costs.

So while industry bodies continue the lengthy process of agreeing on a standard format to bring to market, is there an immediate step that financial institutions can take to fill this void? We believe there is, and it is a step that a number of fund managers and investment banks are already piloting.

The Current Crisis

The "credit crunch" and the resulting failure, rescue and/or nationalization of several investment banks has highlighted the industry's vulnerability to the collapse of a major issuer of financial instruments.

The damage wrought by this wave of failures was magnified by institutions' collective lack of awareness of their exposure to default. Many firms, for example, simply did not realize they were holding paper originally issued by Lehman Brothers or one of its many subsidiary or affiliate entities; indeed, there were over 11,000 active instruments tied into Lehman Brothers (see Figure 1).

The root cause of this breakdown in understanding exposure is the absence of an industry-standard identifier for business entities and linked hierarchies of ownership – a situation that makes it difficult for firms to understand who they are buying from, and who is the ultimate originator of a particular security or instrument.

Due to the credit crisis and the resultant global recession, most practitioners anticipate increased regulatory oversight, as well as higher demand for more stringent risk management practices (rather than mere risk calculation), to improve an individual firm's resiliency to the failure of any market participant. This will have a very real and necessary impact on a firm's systems and methodologies used to identify unacceptable risk and exposure.

The convergence of the risk and compliance functions has been coming for some time, but these essential functions are now likely to move to the heart of the financial enterprise. And accurate data collection, cleansing, and management are essential to ensuring the success of this approach.

Major Subsidiaries	Number of Securities	
Lehman Brothers Bank, FS	2,717	
Lehman Brothers Finance S.A.	467	
Lehman Brothers Treasury CO. B.V.	3,657	
Lehman Brothers Holdings Inc.	2,228	
Neuberger Berman Inc.	7	
Total Number of Subsidiary Issuers	79	
Total Number of Unique Issuing Identifiers	204	
Total Number of Securities Outstanding	11,325	
As of September 22, 2008. For illustration purposes only; more issuers and subsidiaries exist. Source: Standard & Poor's Cross Reference Services.		STANDAR

Figure 1

The Need for a Standard Business Entity Identifier

Institutions – large and small – have a big problem: It is difficult to quantify and qualify their exposure to multi-national corporations that issue many securities in different markets from various subsidiaries. Case studies from recent history that demonstrate this – and the problems that result – include Enron and Parmalat, and now Lehman Brothers and AIG.

There is no prevailing identifier that provides the unique identification required, and none that covers the range of entity-related objects – issuers, obligors, counterparties and guarantors, among others – on a global scale. Instead, there is a wealth of identifiers from diverse sources; each covering overlapping subsets and collectively not providing full coverage within the financial services industry.

There is no standard definition of a business entity among existing identifiers – each scheme defines an organization based primarily on their respective legacy requirements. Existing systems are tailored to their customers and this approach has made good business sense for servicing organizations. But the requirements of investment firms – buyand sell-side alike – have outpaced development in traditional identification schemes.

Collection, storage, and maintenance of information to support entity identification are not core skills for financial institutions. But out of necessity, larger institutions have developed the requisite infrastructure at significant cost and with operational challenges because no viable solution existed that would give them a database of vetted legal entities for their customer accounts and due-diligence requirements. Most corporations, however, don't have the breadth of capabilities to collect all the required data and maintain it in a timely fashion on their own. Yet, financial services firms want to keep their value-added data confidential and within their walls, a reasonable request in the modern world where data security is an issue.

To some extent, the industry has not advanced its business entity identification capabilities in keeping with 21st century realities, and thus lags behind progress in the field of identifiers for securities.

Indeed, in securities, the industry has adopted the International Securities Identification Number (ISIN, or ISO standard 6166) as the universal identifier for securities, and this identifier has become ubiquitous and serves its purpose very well. Each national numbering agency (NNA) is responsible for identifying local financial instruments that need global exposure. These securities are then given a global unique identifier – the ISIN – for use internationally.

Nearly all industry practitioners agree – a similar universal identifier for business entities is needed and would be welcome. So we understand the problems associated with a lack of entity identifier, and we have identified what is necessary to solve the problem, but why has this not become a reality? Despite ongoing work by industry bodies to develop such a standard, not all practitioners involved agree on the details and as such, no development has come to fruition.

Agents for Change

Recent regulations – in the U.S. and Europe especially, among them the EU's Markets in Financial Instruments Directive (MiFID), the Transparency Directive, Basel II, and Know Your Customer (KYC) – have spurred industry interest in establishing a common identifier for business entities that firms can exchange internationally.

But now there is even more impetus from financial institutions to address the issue of a lack of entity identifier to ensure they can quantify and qualify their exposure to risk, as well as meet ongoing and evolving regulatory requirements and need to reduce costs and improve operational efficiency.

So just what stage has the industry reached in terms of progress?

An identifier for business entities is not a new concept. The International Organization for Standards (ISO) started discussions on the topic more than a decade ago. Over that period, several attempts have been made to define a standard. But none has been truly successful, mainly due to differing objectives and confusion over implementation.

The group within ISO responsible for the International Business Entity Identifier (IBEI) project, called WG81, completed work on ISO standard 16372 in 2007. The working group took previous ideas and improved on them to develop a method for cooperatively populating a repository from market participants' databases. When put to subcommittee vote the proposed standard, however, was rejected largely due to conflicting expectations of scope and lack of consensus by subcommittee members as to how exactly the system should operate, and who should be responsible for it and for the information within the repository.

Swift, a long-time ISO participant, has its Bank Identifier Code (BIC), which it developed to unambiguously identify financial institutions that send and receive messages on its network. There is not a one-to-one relationship between a BIC and a legal entity, how-ever, as a BIC is used to define an endpoint in a transaction. Some organizations have many BICs assigned to them to represent their various trading desks or divisions, and many small organizations share a BIC. Swift is working with partners to scrub its BIC database with a view to making it more appropriate for the IBEI space. Meanwhile, it has adopted the BIC system to support a collective investment vehicle identification code (Civic) that effectively provides an IBEI for the scope's limited, but important, fund space.

WG8 has recently revitalized its efforts to define a new standard for an issuer and guarantor identifier, or IGI, to limit the scope of the entity standard to one that is manageable by a single organization working in concert with market participants. The adoption of this IGI approach suggests the registration authority should be the Association for National Numbering Agencies (ANNA), the organization responsible for administering the ISIN. But work on the IGI standard has just begun, and the horizon is at least two years plus implementation time.

All of these efforts are aimed at providing an identifier. But they do not address another core issue – the linkage of entities to each other to provide a risk rollup. A unique identifier is a required component to the ultimate solution. But it will take a significant level of effort beyond the establishment of an identifier to provide a viable risk-management tool.

¹ Formally known as the ISO Technical Committee 68 for Banking, Securities, and Other Financial Services, Subcommittee 4 for Securities, Working Group 8

What the World Needs Now

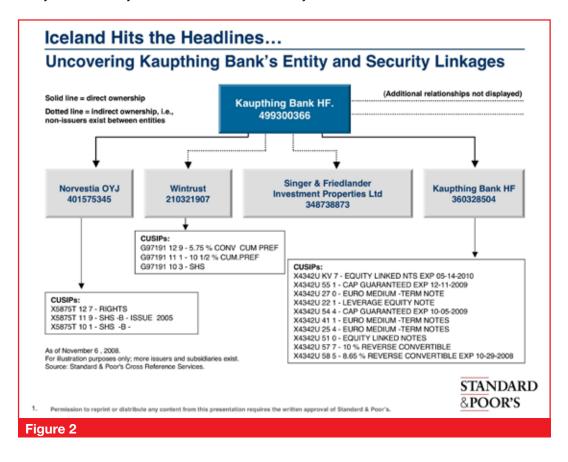
The industry wants a universal identifier – on this there is no debate. But a solution needs to provide value beyond systems that have been made to work in the absence of a viable alternative.

A definitive, unique international business entity identifier, combined with linkages and hierarchies between related entities, would give financial institutions one of the tools they need to understand their exposure to a particular legal entity, or collection of entities. Properly vetted descriptive information about each entry can help a firm relate its holdings and business partners in context to an overall risk and regulation conformance profile (see Figure 2).

A common language is required to facilitate all financial services needs across regulation, compliance, legal, data management, and risk management. These functions within a firm all need part of the same corpus of information relating an entity to its subsidiaries, and to their issued securities.

There are several organizations that have demonstrated expertise in providing data sets and identifiers for their specific areas of specialization. These organizations need to work in a partnership to collectively define a sustainable system of collection, validation, identification, and distribution of entity information for use by the general community.

A global solution providing a business entity identifier requires the cooperation and involvement of many different firms across all the major jurisdictions that need to be covered. Each organization must be able to validate data within its jurisdiction and be trusted by the international audience to do so. Finally, there needs to be a distribution framework that is easily accessible by the financial services industry.



How Standard & Poor's Can Help with the Immediate Issue

Standard and Poor's has long been the authoritative, objective, and credible information source to the world's financial services firms providing credit ratings, indices, and investment research in a convenient and timely manner. We have made the investment and commitment to be premier partners with the global financial services community by developing procedures and systems for collecting, validating, and distributing a wide collection of relevant data. CUSIP Global Services, which is operated by the CUSIP Service Bureau and managed on behalf of the American Banker's Association (ABA) by Standard and Poor's, provides unique identifiers for issues within the United States and other countries.

CUSIP Global Services (CGS) recognizes the need for an immediate solution to the business entity identifier problem. Leveraging our 40 years of experience with responsibility for CU-SIPs as a national numbering agency we are ideally positioned to provide the solution to the industry. With a global presence, and strategic alliances with

"Our master file IT specialist told me we get the CrossWalk file-- I couldn't imagine how we would have been able to do all we had to do for the Lehman wind-down without that info. Thanks." *Central Securities Depository*

the world's collectors of entity-related information, Standard & Poor's can bring this broad collection of interconnected information – including the Dun & Bradstreet DUNS number for entities, Markit RED code for credit obligations, the Global Industry Classification Standard (GICS) identifier with Morgan Stanley Capital International, ratings information, and other securities identifiers from global partners – to all market participants.

Indeed, several trusted market participants (see testimonials inset) have already been working with us in pilots. These investment banks, brokerage firms and fund managers, have looked to leverage Standard & Poor's expertise in receiving, analyzing, validating, processing, and distributing descriptive data in a timely fashion in order to provide business entity data and hierarchies for their specific portfolio of investments.

"Considering the news this morning on Lehman Brothers, we need to take a comprehensive look at our exposure to Lehman-related securities. We think the best way to do this is to use the Global Ultimate Parent and leverage all the Cusips related to subsidiaries that roll up under this GUP ..." Custodian Bank To do this, we have expanded on the core data linked to the CUSIP and ISIN numbers in the U.S. and globally. The issuer information provided with the CUSIP already definitively identifies an issuer, as well as loans, credit derivatives, money

market instruments and, increasingly, the fixed income obligor. Diverse sets of value-added information are tracked internally in conjunction with the details about the issuer or guarantor so that this data can be used in compliance and risk mitigation applications.

Standard & Poor's supports a broad range of entity data elements across a wide range of financial instruments and related entities. These data elements, supported over an entity's lifetime, include ratings of an entity's risk management credentials, data adjustments such as address changes, and corporate actions. This repository of reference data is available via a range of Standard & Poor's data feeds and can be integrated into a firm's data operations. Standard & Poor's, through CUSIP Global Services, is continuing to be an active supporter of the various standards initiatives in order to drive forward a longer-term solution for the industry. But in the meantime, we are seeking to work with the global community to quickly bring a viable utility to the market that will provide a database of confirmed international business entities with unique identifiers. Standard & Poor's believes that a cooperative effort with the leaders in entity identification and classification can result in a useful system in the near future that is operationally sound and provides the necessary value-add to make it a compelling risk and conformance tool.

You too can help shape the solution to your risk management and compliance problems by joining with CUSIP Global Services and Standard and Poor's Cross Reference Services to further industry initiatives and see how Standard and Poor's can show you what you are really invested in.



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Standard & Poor's, a division of The McGraw-Hill Companies, is a leading source of independent financial information, analytical services and credit ratings to the world's financial markets. Standard & Poor's Cross Reference ServicesSM provides comprehensive reference data matching. It identifies the hidden links between standard & non-standard identifiers across global and domestic markets and highlights relationships between issuers, instruments, entities, parents and obligors...

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A-TEAMGROUP

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We're widely known for our focused series of publications, research and events across missioncritical functions including high-performance trading infrastructure, low-latency market data and connectivity, enterprise data management, reference data, market structure, risk and regulation and more.

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