

XBRL: Streamlining Credit Risk Management

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Abstract

Computing power is changing credit assessment processes in profound ways. Credit risk modeling and benchmarking are becoming more integral to credit management, speeding the processes, enhancing analysis and lowering associated costs. The Extensible Business Reporting Language (XBRL), the new Internet standard specifically designed for business reporting and information exchange, is a logical next step in the evolution of technology-driven improvements in credit determinations. XBRL can streamline processes in credit assessment and risk management, increasing the quality, timeliness and frequency of analysis and decreases costs. Understanding how XBRL's power of automation enhances credit risk assessment and management is critical for any organization that extends credit, as the lender's own financial well being is often tied to those of its borrowers.

What is XBRL?

The concept behind XBRL is simple: Enable various systems and software to exchange business information using common, standardized, universal terminology. The purpose is to bring consistency to the names by which data items are known by all software located anywhere in the corporate reporting supply chain. Companies can do this incrementally, by introducing an XBRL data source as an alternative to information identifiers they are currently using, and then making one business application 'smart' at a time. Through such deployment across the supply chain, XBRL will facilitate information sharing instantly and directly, within organizations and between companies and all of their different stakeholders, without regard to which particular system or software does the sending or receiving.

The capability of disparate software products to share information exists to some degree with present technologies, however using XBRL:

- Facilitates direct system-to-system information sharing between borrowers and lenders on a much broader scale,
- Reduces error rates as information moves from sources to lender analytical software,
- Enables more information to be included in credit analysis and monitoring at no added cost,
- Strengthens a creditor's ability to identify and anticipate deteriorating loans and
- Provides enhanced information gathering and analytical capacity.

Many software makers already include XBRL in updated versions of their products, and many others plan to do so with upcoming releases. The accessibility of XBRL through different types of software already in use will facilitate deployment at both borrower and creditor organizations and help to improve the quality and timeliness of information sharing between these organizations. This evolution in the nature of business communication over the Internet is not limited to credit decision making, of course; it includes business information exchange of all types for all decisions — by managers, investors, business partners, regulators and other stakeholders.

The XBRL standard is part of a broader set of universal standards the software industry has adopted to minimize incompatibilities among disparate products and to facilitate commerce via the Internet — from buying, selling and providing goods and services to improving the collaborative abilities of business partners. The software industry has realized its way forward — collaborate on standards, compete on implementation — and the resulting change in the Internet environment sets the terms for nearly all Internet communication, including business information.

XBRL Streamlines Credit Risk Assessment

Without question, effective risk analysis is critical for any company extending credit. Of all the risks involved in the credit assessment process, perhaps the greatest are the practical limitations on how much borrower information can be included in both initial and ongoing evaluations and how frequently borrower status can be re-evaluated.

For the majority of creditors, these limitations are fundamentally cost based; the price tag on gathering and consolidating company information before it can even be used for analysis is so high that it restricts not only the scope but also the frequency of credit analysis. In a world in which seemingly healthy companies have disintegrated in days, is an annual or even semi-annual credit assessment enough?

Risk assessment processes drive risk assessment costs. Creditors receive information on companies from multiple sources and, even when all information is provided electronically, most or all of these sources are incompatible with each other and with credit analysis software. This means that company information, relevant as of some date in the past, can only be transferred from its sources to its destination via labor-intensive, manual-integration processes, such as re-keying and “cutting and pasting.” These types of manual processes are not just expensive and slow they are inherently error prone. *The upshot is that creditors gauge their own financial health based on dated borrower information that paints a limited picture of current status and does not reflect the reality that a company’s circumstances can change quickly.*

Like creditors, company managers face the same obstacles in preparing information for analysis and decision-making. Incompatible information systems within a company limit the amount of information managers can use to make decisions by requiring the identical manual interfacing lenders use, with the same high costs, limited analytical scope and error risks. The information management provides to lenders can only be as good as the information management itself receives — and less information can equate to more risk. In this case, the highest risk is that lack

of information will produce errors in managers' judgments that affect not only their own companies' bottom lines but also those of their creditors.

Whether it's credit decisions or strategic management decisions, the high cost of assembling information is the crux of the problem — and a culprit of increased credit risk exposure for institutions that extend credit. The ideal solution is zero-cost credit assessment for both lenders and borrowers. While we're not living in an ideal world, there is a way to make the entire credit assessment process cheaper, easier, faster, more comprehensive and, ultimately, capable of producing results that are up to date, even up to the minute. Technology has provided a solution: XBRL, which addresses the problems posed by lack of system-to-system, system-to-software business information sharing.

As the new Internet standard for the business reporting supply chain, XBRL enables disparate reporting systems and software to communicate with each other directly. By providing universal codes for the information which existing software already has and uses, XBRL makes the credit assessment process more automated. Reducing or eliminating the need to produce paper based documents provides an analytical platform that can:

- Lower credit analysis costs dramatically,
- Increase the number of inputs from company financial reports used regularly for analysis without incurring incremental expense,
- Increase the access and frequency of information provided by borrowers at the enterprise and asset ledger levels,
- Decrease error rates by reducing or eliminating manual tasks,
- Reduce the time spent on data consolidation and increase the time spent on financial analysis,
- Incorporate data from statistical models, rating agencies, market sources and other third parties easily and quickly,
- Facilitate more timely, consistent and comprehensive credit analysis and covenant-compliance monitoring,
- Improve accuracy and consistency of lenders' credit, regulatory and other reports, as appropriate,
- Enhance the speed and ease of reporting credit evaluation results to management and customers,
- Consolidate information for regulatory, management and all other reports in moments and
- Populate third-party data stores that the lending community can use to create and maintain valuable industry-wide benchmarks for enhanced statistical analysis.

The bottom line is that XBRL enables creditors to better manage credit risk from several directions at once. XBRL is helpful because it eliminates distortion and loss of information and artificial delay in the process of getting data from borrower to creditor. To facilitate information exchange via XBRL, a creditor needs to publish a "taxonomy" of items it wants to know. An XBRL taxonomy is like a dictionary; it provides contextual definitions for data, called "tags." Borrowers can then apply the tags to their data and send the information to the creditor. Alternatively, creditors can use publicly available taxonomies for reporting under GAAP.

By receiving XBRL enabled information from borrowers over the Internet, lenders whose own systems are XBRL enabled can immediately extract the specific information they need to perform a credit assessment — right into their own analytical software — and begin analysis in moments. Commercial lending tools are in the works to unleash this capability. One example is Moody's Financial Analyst, a software tool designed to increase accuracy, save processing time and reduce expenses in the credit risk assessment process. On the information production side, borrowers can prepare XBRL enabled information through such widely used products as Microsoft's Navision and Great Plains enterprise products, as well as products from Creative Solutions, CaseWare, Hyperion, EdgarScan and enumerate. In addition, XBRL capabilities will become available on countless numbers of desktops all over the world through a supplemental XBRL plug-in to the new version of Excel, scheduled for release later this year as part of Microsoft's new Office 2003 suite.

To better understand how quickly and easily lenders will be able leverage borrower information in XBRL, PricewaterhouseCoopers, Microsoft and NASDAQ collaborated on a demonstration, available at: www.nasdaq.com/xbrl. This pilot allows users to instantly access information in the published version of financial reports from 23 companies for any period in the last five years.

Accessing the Excel spreadsheet provides a clear picture of what XBRL enabled reporting environment will look like for any type of business report. Instead of having to hunt for information, bring it to the local computer, and then import it into Excel, the demonstration shows how information can be requested right from the Excel worksheet — and how the information is delivered right into the worksheet — in seconds, in a contextually relevant manner, ready to be used for analysis. Here, “contextually relevant” means data is delivered along with associated information, such as footnotes. In addition, the spreadsheet automatically performs multiple ratio calculations relating to debt capacity, coverage, profitability, cash flow, turnover and other key metrics. Each “search” allows investors to request — and receive — all of this information on five companies at a time — and have it in less than 30 seconds.

XBRL: The Engine of Supply Chain Integration

The unprecedented information sharing capabilities XBRL makes possible have profound ramifications for the credit information supply chain. Many, most or even all of the manual steps that increase costs — and risk — are reduced or eliminated and new capabilities are added that offer credit departments greater assessment and exposure-management capacities:

Reduced Costs. By reducing reliance on manual, labor-intensive tasks, XBRL can lower the amount of time, money and resources dedicate to gathering and consolidating information before the credit assessment process can even begin. At the same time, money and resources can be redeployed to more value added activities — especially analysis. The days of preparing information for analysis by searching through hundreds of pages of financial information, re-keying data from hard copy or faxes, waiting for information consolidators to make information in financial reports useable are over. The days of discovering, downloading and analyzing information in all manner of business reports literally in seconds have begun.

Greater Accuracy. By minimizing the physical information-consolidation process, XBRL can drive down transposition errors as data moves from one system to another. Despite all

precautions, the efficacy of any analysis today, no matter how sophisticated, depends on whether individuals found all appropriate and necessary information in financial reports and correctly placed that information in the analytical program. Small, nearly untraceable manual errors are a constant threat to sound risk management. Once systems are XBRL enabled, all of the relevant information from a request will be delivered directly to an analytical program. This greatly reduces the risk of the risk assessment process itself.

More continuity. Once information is published in XBRL, it can be accessed over and over by authorized users for multiple purposes. Each time any piece of information is used, it comes directly from the original source. If changes occur at the source, as with a borrower or benchmarking source updating all or specific portions of their information, then “downstream” consumers, such as analyses and reports, can automatically be updated. Information is thus consistent across all analyses and reports, whether it’s within a credit department, throughout an enterprise or across a supply chain.

Tighter compliance monitoring. Creditors depend on client financial statements and other disclosures to assess whether borrowers are in violation of covenant ratios. Since XBRL lowers the cost of analysis, compliance assessments can be performed more frequently. Identifying problems at earlier stages means mitigating actions can be taken to limit losses. Additionally, XBRL facilitates communication of covenant compliance information between borrower and lender and other syndicated creditors, exponentially improving such processes from the way they are performed today.

Higher data reliability. XBRL can leverage new validation and authentication technology, making it easier for a reporting company’s management to trace the origin of information right to the publishing source within the company. As a result, management’s assertions have a greater degree of certainty even at higher and higher information consolidation levels — right up to comprehensive public reports. So, the quality of information delivered through a borrower’s XBRL enabled systems to credit departments and other third parties will be far higher than today. Moreover, new digital signature specifications, which XBRL can utilize, provide creditors with much greater certainty that the information they are receiving is, in fact, the same information that company management certified and auditors assured. While companies themselves may not be culpable for misinformation, there is no expedient way today for creditors to determine an information source’s legitimacy.

Enhanced analysis. XBRL mitigates the limitations that today’s manual processes place on the number of inputs that can be included in credit assessments. Easier access to specific information in XBRL enabled company reports and quicker extraction mean that more information can be included in each credit analysis without adding incremental costs. Consider: If a creditor now uses 70 data elements for credit risk evaluation, largely or entirely because that’s all the information attainable cost effectively, then by expanding the scope and depth of available information at no incremental cost, XBRL can enable creditors to consume, say, 1,000 data elements for the credit decision more easily, more quickly and for the same price, producing better risk assessments.

XBRL exchanges today's manual, time consuming, error-prone credit risk assessment process for a more streamlined, automated process that significantly lowers risk and adds value. In this environment, lenders can redesign their credit management processes to be more predictive, more comprehensive, more current — more effective.

Better Credit Determinations; Better Risk Management

Any solution to the problems of high costs and inefficiencies in today's credit risk assessment process must offer an approach to improving the timeliness and ease of information access, consumption and re-use. XBRL enables all companies to leverage the Internet to accomplish each of these objectives, without resorting to proprietary products and services that result in dependence on any specific vendor.

The foundations of widespread XBRL adoption, across the business information supply chain, are already set and we are now seeing the early stages of implementation by leading-edge companies in all industries. Companies, whether lenders or borrowers, need to familiarize themselves with XBRL and begin exploring how it can best be implemented in their organizations now, as the transition is beginning, rather than waiting for market forces — competitive and technological — to force change. The fact that XBRL is latent in the systems and software of so many companies is a significant factor in easing the transition.

XBRL's inclusion in new versions of many of the most widely used business software products is just one piece of a broader, global movement toward an entirely new Internet platform, called Web Services. Web Services is a set of new standards for how to place information on the Internet and for how information moves from place to place, safely and securely. The Web Services standards are open and freely available — and have been adopted by nearly the entire software industry. This may sound remarkable, even unbelievable, however, software makers, collectively, understood that the disparity and incompatibilities between various products blocked the Internet's potential to serve as the driver of commerce in an increasingly fast paced, globalized business environment.

By adopting the Web Services standards, the software industry is redefining the way the Internet works, and making it significantly more efficient and effective as an information repository and communication tool. XBRL is the Web Services standard for business information, and, like the other Web Services standards, it is open, freely available and collaboratively developed. XBRL International (<http://www.xbrl.org>) is a key source of information for understanding capabilities and progress in implementation and development. PricewaterhouseCoopers has a dedicated web site, www.pwcglobal.com/xbrl, for learning about XBRL's impact on the business information supply chain and how companies can work with their auditors, both internal and external, to ensure that the context of XBRL enabled business information is accurate from the time it enters a company's systems and for each use, whether internal or external, thereafter. For creditors in particular, Moody's KMV offers an informative and educational site for understanding XBRL in the context of the credit assessment process, at www.mkmv.com.

Change is never easy, but progress is impossible without change. XBRL represents the change; for creditors, faster, easier business information exchange and more timely, frequent, consistent

and comprehensive credit analysis and covenant-compliance monitoring define the progress. It remains for creditors to understand XBRL's capabilities and flip the switch to "on."

This article is of a general nature and is not intended to address the specific circumstances of any individual or entity; in specific circumstances, the services of a professional should be sought. Mike Willis is Founding Chairman of the International Steering Committee of XBRL International and Deputy Chief Knowledge Officer at PricewaterhouseCoopers. Brad Saegesser is the Credit Decisioning Data Product Manager at Moody's KMV and is a member of the XBRL-US Domain Working Group. The views and opinions are those of the authors alone and may not necessarily represent the views and opinions of XBRL International, PricewaterhouseCoopers or its member firms or Moody's KMV, a subsidiary of Moody's Investor Services.