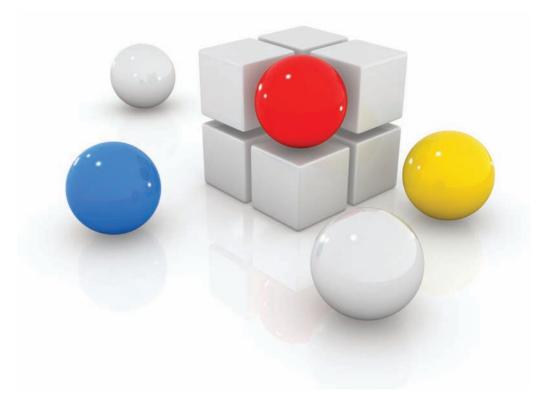
Inside Reference Data

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Reference Data Technology

Special Report



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Editor's Letter



Gaining a Risk Buddy

When I took up the position as editor of *Inside Reference Data* in 2007, the majority of market participants I interviewed talked about selling the concept of enterprise data management, building the business case and getting senior support for data activities.

But soon after, the global financial markets took a nosedive. Discussions moved to the fact that senior executives started recognizing the importance of good-quality data. At this point, budgets were squeezed across the industry, but risk units were taking a greater interest in reference data, underlining the importance of continued improvements in data management systems.

At conferences, data managers said professionals who would not even say 'hi' to them in the elevators before the credit crunch were now suddenly their new best friends. And risk has continued to be a key theme over the past couple of years, with regulators putting pressure on firms to mitigate risk. This has also helped shape the agenda in the reference data technology space.

It is not a case of system requirements having changed overnight. The key themes related to building a sound reference data technology platform remain the same. Data managers still want to centralize and automate processes, and need flexible and scalable systems. Yet, they are not going solo. They can team up with a risk buddy, who understands the background for setting off on the journey.

In this special report, which includes comments from industry experts and a news review, we hope to help readers stay informed about the latest developments in the reference data technology market.

Yours sincerely,

Time Thorese

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News Review

Data Centralization Gains Ground in Asia-Pac

SINGAPORE—Data management experts at the FISD event in Singapore said enterprise data management (EDM) initiatives in Asia-Pac are on the rise

Firms in the Asia-Pacific region are increasingly focusing on data centralization initiatives, placing greater emphasis on the need for a long-term data strategy, said speakers on an *Inside Reference Data* panel at the FISD event in Singapore in April.

Speakers said firms are now more willing to design a data management road-map and invest in global data strategies. Previously, putting forward a business case for a data centraliza-

tion program, was very complex, but today it can be less of a struggle. Hong Kong-based Marc Anthonisen, MD for Standard & Poor's Enterprise Solutions, Asia-Pacific & EMEA, and speaker at the event, said regulation, increased capital flows into Asia, and ongoing technology improvements have pushed firms to focus on data centralization initiatives more than in previous years.

"Recently, and especially due to regulatory drivers, data has pushed itself to the top of the priority list," he said.

The full version of this story appeared in *Inside Reference Data*, May 2011

Carla Mangado

Securities Automation Initiative Pays off for Gonet & Cie

GENEVA—Swiss private bank Gonet & Cie has started to experience the benefits of its back-office project aimed at automating set-up of new securities and change-processing by implementing Gain Ambit Apsys, a processing interface offered by Aim Software in collaboration with SunGard, officials tell *Inside Reference Data*.

The upgrade started in December 2010, and is aimed at improving efficiencies and data quality by automating the set-up of new securities and updates.

The firm will be able to add securi-

ties to its system intra-day, replacing a manual process and enhancing data quality. There will also be a streamlined connection to SIX Telekurs' VDF reference data feed.

The bank had been using Viennabased Aim's data management platform Gain since 2005 for the creation of reports and end-of-day prices, and the installation of the new interface is an extension to the platform.

The full version of this story appeared in *Inside Reference Data*, March 2011

Carla Mangado

News Download

NAB Europe Lays Foundation for Multi-Year Enterprise-Wide Data Strategy

LONDON—National Australia Bank (NAB) Europe is setting up an enterprise data foundation program, an enterprise-wide multi-year data initiative, to revamp its data management practices and facilitate regulatory compliance, according to speakers at the Data Governance Conference Europe.

In 2010, NAB Europe began to liaise with consultancy firm Information Processing Limited (IPL) to help facilitate the laying out of the initiative and the strategic path around its data management practices and regulatory needs. UK-based Tim Franklin, principal business consultant, IPL, said: "Our aim is to apply best practices and reference models to make sure the approach taken by the team can lead to a multi-year strategic roadmap as opposed to a one-off data initiative."

Two of the main drivers behind the data program were changing regulatory requirements and the need for greater transparency. Glasgow-based Martin Campbell, information architect, National Australia Group, said: "Working on the foundations of the program is providing us with the strategy to ensure we are ready for new regulatory needs, and supporting our business capabilities."

A key part of the program involved creating awareness within the institution of the need for data governance, explained Campbell.

The full version of this story appeared in *Inside Reference Data*, April 2011

Carla Mangado

Lack of Global Vision "Hinders Data Maturity"

The reference data market would benefit from a standard way of benchmarking data management maturity across the industry, according to speakers at the buy-side technology and operations convention TSAM in London in April.

Panelists said a benchmarking strategy, allowing firms to measure their weaknesses and strengths, is a necessary step to reach a higher level of data maturity in the industry.

MoneyMate Highlights Lack of Automation Despite Reg Awareness

Results of a data management and regulation survey conducted by investment data quality management provider MoneyMate, reveals automation efforts are lacking despite growing awareness around regulatory requirements.

While 75% of buy-side executives surveyed said regulatory reform will affect their organization's data management processes, only 14% currently utilize an automated process that supports regulatory compliance.

Reference Data Technology: Time to Comply

Inside Reference Data gathers leading industry professionals to discuss the latest trends and developments in the reference data technology space

What business areas are driving investments in reference data technology projects at the moment?

Norman Brower, executive director, reference data, Morgan Stanley: The internal business functions driving investments include risk, compliance, finance and reporting. In terms of reporting teams, depending on what they have to do, they all require reference data around entity, product, transactions and positions.

The general drivers include the need for common identifiers, an area where the Office of Financial Research (OFR) is expected to make a difference. Standardization of identifiers is one of the reasons why the OFR will be good for the industry.

Alex Olson, principal, Kingland Systems Corporation: In short, every business area, because the need for data management is pervasive. The leading areas are operations and risk, with the IT group attempting to corral the various groups to implement an enterprise solution, reducing the risk of more data silos.

At Kingland, we continue to see regulatory trends driving the reference data agenda within large organizations. As the industry has worked collectively to understand the impacts of regulations such as Basel II and Dodd-Frank, the foundational data domains—securities, business entities (client/counterparty) and hierarchy data—are receiving the most focus.

In addition, the financial crisis of a couple of years ago continues to impact organizations to drive data technology projects towards cost reduction and increased agility. Operations and IT are working together to find ways to rationalize duplicative systems and overlapping data vendor costs to provide the

business with greater value. At the same time, organizations are asking how they can address market dislocations, acquisitions, and new market opportunities in a more rapid fashion while expanding the data-driven capabilities of the risk management function.

Michael McMorrow, enterprise data warehouse designer, AIB Group: The main business areas I see driving this at the moment are those concerned with compliance, regulatory interactions and credit. These frequently involve different perspectives on the same data, so the "super-set" of requirements helps to consolidate a strong investment case. These requirements include data quality improvement and assurance (scoring/profiling), modeling that is increasingly aligned with external definitions and deeper data analysis to support internal BI/ MI and statistical modeling. I also see a growth in transforming data held in unstructured format into structured format, for example decomposing documents into granular data items.

Richard Newbury, market development manager, SIX Telekurs: Although many firms are now reporting more healthy revenue and profit figures, individual business units are still being impacted by cost-cutting measures.





Alex Olson, Principal, Kingland Systems Corporation +1 641 355 1085 www.kingland.com

We see two drivers for investment in reference data technology projects: regulatory compliance and risk management. Although there is clearly innovation to grow the top-line at banks, this is less marked than the other drivers at present.

Interestingly, although cost is important, reference data users are still prepared to invest in new projects where cross-enterprise benefit can be shown and potentially lower future total costs of ownership is anticipated.

Hugh Stewart, sales director, SmartStream DClear: The glib answer is all departments that touch a transaction or an exposure. It also triggers the argument about whether data management should be a departmental responsibility, a centrally controlled responsibility or a mixture of both based on a strict governance model.





Richard Newbury, Market Development Manager, SIX Telekurs Tel: +44 207 550 5179 www.six-telekurs.com

Pricing is important for buy- and sellside firms as regulation pressure and client demands ensure the need for consistent, reliable, auditable pricing and valuation.

Market, credit, liquidity and operational risk departments are demanding consistent sources of data across their disciplines. Hitherto they have been managed as silos with the data also provided, at best in sub silos depending on source, asset class, function. That created anomalies and incompleteness.

Today, the manager and the regulator demand consistency within a particular form of risk measurement, ie, market risk as well as cross-disciplinary consistency across different forms of risk measurement and common, clean source data.

Sinan Baskan, director of business development for financial markets,

Sybase: Wall Street traders are driving change. Trading operations are taking the lead in implementing business models and processes to adapt to a new wave of FSI regulations. In some cases, they are executing quickly on geographic strategies, in places where regulations may be easier.

About 75% of Wall Street traders say they have begun to change their businesses to adapt to the new financial services industry regulations, according to a recent survey for consultancy firm Capco.

These new rules—there are 243 of them—all have to be written by the end of July, but strong lobbying moves are being made to expand the deadline by a further 18 months. After that, it might still take two years or more to implement those regulations fully. Investments in reference data technology will continue unabated.

In the regulatory function, only 20% of traders say they are at implementation, but nearly two-thirds have completed the impact assessment.

Just under half of bank compliance officers—they deal with enforcing company-wide business practices and standards—have begun to change their businesses to reflect the new rules.

About 67% of risk officers are in the process of making the necessary changes.

In what ways have reference data technology systems and requirements changed in the past five years?

Brower: I don't think the requirements have changed. There's broader understanding of the challenges. I don't think the importance of data was understood by the masses previously. Now that we have to do accurate, transparent reporting, people understand the importance and value of good data.

Technology-wise it has progressed. Twenty years ago there were no master data management (MDM) platforms. Now, there are lots of MDM vendors. There is a whole industry around tools for data management. Before, the industry was limited to database vendors.

Olson: In many ways, the requirements of reference data technology systems have not materially changed over the past five years; however, the market and regulatory environment has caused organizations to be no longer willing to compromise on certain requirements. For instance, organizations five years ago were willing to compromise their "enterprise class" requirement and settle for a business unit solution. In the same way, organizations were convinced by vendors that the key was to do another "data integration" project to create a "gold copy," instead of looking at how business value is created by integrating data into downstream applications. In short, organizations expect more today and do not so easily compromise their requirements.

At the same time, the technology solutions are maturing to meet the needs of the industry. Successful technology providers have shifted from a business unit perspective to a full enterprise view. While not every organization is always attempting to solve the enterprise need, the platform robustness is a key selection criterion to give an organization the ability to not just solve one business unit's problem, but multiple business units' problems if they choose to in the future.

Second, solutions have moved from a single view—golden copy—to focus instead on providing downstream applications with the data they need and are entitled to. At Kingland, we see the past being focused on the stack of technologies to just integrate the data, and instead moving forward to having strong application integration. Leading technologies have multiple methods to access different degrees of "integrated" and "mastered" data while maintaining strong data lineage throughout the system.

McMorrow: I see a general increase in focus on data governance, quality and analytics. While most organizations have held significant reference data stores for many years, the experience of the past



SmartStream

Hugh Stewart, Sales Director, SmartStream DClear Tel: +44 020 7898 0600 www.smartstream-stp.com

five years must be that this reference data did not play a sufficiently effective role in guarding those organizations against the financial crisis. This has caused organizations to internally assess the role and contribution of data and to "up the game" on a number of fronts—the ownership and understanding of data, the quality and completeness of data, the exploitation of that data for insightful predictive modeling. From the perspective of data management advocates, every cloud has a silver lining!

Newbury: With the financial crisis in the middle of those five years, there has been a longer-term trend, and a trend that has become more pronounced since the end of 2008. The longer-term trend is growth in volume. SIX Telekurs processes 18 times more price data messages every year now than 10 years ago. We cover

almost 5 million more instruments than then and have added a huge number of companies to our database. This is the long-term ongoing and underlying trend. Since the middle of the last decade, regulatory and compliance data has come more to the fore as well, with this trend becoming more evident since the crisis. The Financial Service Action Plan in Europe, and now with its equivalent in the US, the Dodd-Frank Act, coupled with regulators' new-found urgent inquisitiveness, mean firms are recognizing more and more that they need to have enterprise-wide views of books and risk, which can only be achieved by the use of meaningful reference data.

Of course, this has an impact on financial data vendors and means our quality checks have needed to be more robust than ever over a much larger volume of data. We have also had to invest in even better localized data, meaning we are able to serve customers with a national view of global data no matter which county they are in.

Stewart: Dramatic developments in technology and infrastructure have offered new options for the deployment and delivery of reference data management solutions. In parallel, there have been new developments in program management, improved focus by management on measurement, the maturing of data

governance, redefinitions of the boundaries of reference data, the impact of the event-driven world, application design, agile methods and of course the impact and influence of regulation.

Web services have provided accessibility and flexibility. Enhanced memory data and processing grids have provided huge processing power that is scalable and low-cost; cloud-based services based on the former two components have further accelerated these benefits.

All this has provided a fertile environment for a revolution and future revolutions in the reference data management space.

Monolithic EDM system dinosaurs have been challenged by fractured, duplicative, departmental data management systems. They in turn have been semirationalized by federated approaches that seem to create more problems than the solutions they promise.

The true breakthrough has been one of understanding. Financial services companies do not have to run data management marathons, only covering part of the course at a disproportionate cost to health, wealth and reputation.

Now, using service-based reference data management, incorporating work-flow extensions and/or light footprint data canisters to suit firms can gain data management solutions through browsers available on every desktop. They now

only have to focus on 'the last mile' performing four-eye fiduciary responsibility where relevant, assemble (multiple) copies of "the truth" and distribute.

Baskan: Sweeping changes to the world's derivatives markets are being made, and promised, since the credit crisis began in 2007. The ministers representing the G20 leading industrialized countries have set a deadline of 2012 for full implementation of reforms.

Under the proposals, large parts of the markets will be put into clearing houses, instead of trades being settled directly between the contracting parties.

Another change will be the requirement for all trades to be reported to regulators, with data repositories being set up to track the extent of exposure accumulated in cleared and uncleared swaps—the biggest part of the over-the-counter derivatives market.

New also are more extensive requirements for public information about trading and prices, especially for cleared swaps.

What new functionalities do you expect to see data management vendors releasing in the coming years?

Brower: I think two things will become more and more prevalent. The first will be semantics. The other will be bi-tempo-





Sinan Baskan, Director of Business Development for Financial Markets, Sybase Tel: +1 1800SYBASE5 www.sybase.com

ral functionality, which will tell you when the information was correct.

Bi-temporal functionality enables users to see the data as it is, as it was, and as it should have been. This has always been important, but the need is now better understood. I can envision 10 years from now, or not even that long from now, all the commercial vendors will support bi-temporal functionality.

Olson: The current economic and regulatory environment creates a focus for new functionality—reduce time to value for an enterprise. The newest functionality, some of which we at Kingland have developed, provides enterprise class software that has industry-specific accelerators that reduce the time to value dramatically, while laying a reliable foundation for continued expansion throughout the enterprise. Over

the past decades, data management vendors have been talking about "tool kits;" however, organizations that purchased these products then spend years of expense and customization to receive value. Instead of "tool-kits," real accelerators are providing the industry with solutions that can provide value in a few months instead of years.

Acceleration, such as multi-domain master data management (MDM), is best applied in the context of an industry's reference data. For financial services, foundational domains such as securities, business entities (client/counterparty), and hierarchy data are many times managed in multiple silos, even if an MDM solution is in place. At Kingland, our view is that a true multidomain MDM solution, customized for the financial services industry, is a powerful functionality to gain real value in data management.

Second, the conversations of "data management" and "business intelligence" will converge. Business value is created when the data is used, not simply integrated and managed. Data management vendors will respond by expanding their product suite with "widgets" that can perform true business intelligence. These will be easy to use and fully integrated. In turn, this development will blur the lines between a "data steward" and "report writer."

McMorrow: One area of growth, akin to cloud computing, is provision of commoditized external data. Many organizations have used this to some extent in the past, such as with interactive links to credit bureaux. With the spectacular growth of public domain data volume and data types, there will be space for data management vendors to offer services as "best-of-breed external data collators." The main attraction for their clients will be the confidence that a vendor will have the widest industry-expert visibility of the range, reliability and legislative characteristics of external data sources, and the widest technology expertise to extract data from structured and unstructured data sources (eg. extracting structured data from news video clips to support sentiment analysis). Another attraction will be demonstration to regulators that every effort is being made to supplement the limited radar of internal data with additional, appropriately certified, external data.

Newbury: Transparency, speed and quality remain our watchwords. Transparency in funds, derivatives and structured products. Using a look-through principle, we are able to give our customers information on what goes into making a basket, a structured product or a fund. We also need to help our customers with legal entities. We are

engaged in both the Sifma Legal Entity Identifier effort and the ISO Issuer and Guarantor Identifier project, which will help our customers better reconstitute their counterparty exposure.

On the speed front, getting data available to our customers as quickly as possible is becoming more and more important. Whether it is our FundsFast solution, which delivers official fund NAVs intraday or our new intraday reference data services, we are working to get data to customers as quickly as we can.

Finally, on quality, we have always held ourselves to high standards in sourcing, treatment and dissemination of data, and we are replatforming our technology and processes to further improve our existing standards to meet the (rightly) high expectations of our customers.

Stewart: The next few years will see further development of enriched cloud/service-based resources and applications. There will be data management models with interfaces that are far more useable to a variety of end-users throughout the organization.

As a result, there will also be more event-driven, real-time integrated information management; graphical data "command and control" centres; automatic repair of broken STP data caused by bad reference data as a transaction is



Norman Brower, Morgan Stanley

processed with even less manual intervention in exception management. Firms will be able to manage every data item sourced from multiple vendors in real-time based on cost, availability, quality and context.

I think we will also see a linking of object data models with data dictionaries with applications and interfaces. Alongside that, there will be the development of more data item "investigators" that identify rogue or unmanaged data items, integrated with real-time cost measurement, management and control systems.

Much as traditional silos of data categorization have merged, ie, securities master, rates and curves management, tick data, entity/master data management and so on, so further integration will occur with regard to other data categories such as individual loans, syndicated loans, credit and securitized products.

CRM, master data management, business intelligence and credit risk will merge. Data management will have to service risk managers' needs for the output of vast volumes of analytic data distributions that need to be analyzed

quickly into risk, compliance and regulatory reporting and stored for reference, back-testing and re-use.

Baskan: Exchanges are engaged in a round of mergers—the most notable is the proposed NYSE Euronext-Deutsche Boerse—to take advantage of the new worldwide effort to regulate overthe-counter derivatives, a \$600,000 billion market in notional value traded annually. The capacity to create new derivatives will have huge bearing for the future of exchanges and on data management.

The driving force is the Dodd-Frank reform laws that require standardized derivatives products to be centrally cleared. The Tabb Group estimates that 90% of over-the-counter derivatives could need to be cleared as a result of the reforms

New functionalities will come from servicing the clearing houses owned by the futures exchanges that will be central to the new market structure.

Following the financial crisis, there has been increased focus on the link between risk management and reference data. How do you see trends in the risk management space impacting reference data technology?

Brower: Risk is a major consumer of

reference data as a division or business process. I would suggest we have a greater appreciation for risk management, and a broader understanding of the importance of accurate reference data to enable effective risk management. Few people outside the field of risk management had an appreciation of the importance of reference data prior to 2008. Now everyone, including members of the congress, understands the importance of data management. Today, effective risk management is one of the universally accepted business drivers for investing in data management programs.

When selling data projects to senior management, it is important to remember to sell a program that sells accurate risk management. We should stop selling data and start selling the end product—the enabler of business processes.

Olson: One of the most common use cases today is exposure. Historically in some circles, the question to be answered was, "What is the single view of my customers?" While important, the leading firms Kingland engages with are asking, "How well do I know my own business?" To answer that question, institutions must look at trading partners, products, counterparties, holdings, suppliers, assets, and other key

data. Against the backdrop of the most recent financial crisis, risk management groups are seeking centralized, highquality rich data.

Unfortunately, in many organizations data is managed in silos, or not managed at all. The result is questionable and incomplete data. Thus, risk management has become a driving force behind reference data initiatives. Initiatives in the areas of information governance, master data management, data quality and analytics have taken root as technologies to address these business needs. Kingland's view is that serious organizations will make significant investments in these areas over the coming months and years by considering how certain core technologies, such as master data management, will enable their organizations to meet not only the risk management needs but provide a foundation on which they can run their business better.

McMorrow: Risk management primarily impacts reference data management by demanding more and better data and more and better use of that data. More and better data involves investment in capturing complete and verified data to enterprise standard definitions across integrated reference data technology solutions. This is the antithesis of sparse data, captured without content valida-



Michael McMorrow, AIB Group

tion to inconsistent, idiosyncratic local definitions. More and better use of that data involves risk management sponsoring complex statistical analytics, which will be used to inform "evidence-based"

risk assessment and action. It's a good time to be a good quantitative analyst!

Newbury: The latest buzz is around "enterprise-wide." Both firms and regulators are looking to be able to calculate some in real-time—their counterparty exposure and other concentration measures. Complying with new Basel III rules becomes much more expensive if a firm is unsure of positions and unsure of the valuation of those positions. These requirements make new demands on interlinks between a firm's disparate systems and cross referencing between different data repositories. Although moves have been made over the past few years towards enterprise data management, banks still have thousands of systems that hold local caches of centralized data.

Stewart: The risk management trends already have impacted reference data

technology, but there is a long way from data vendors, data management resources and intermediaries', and indeed also risk managers', appreciation of what they need to what is possible or deliverable today.

The important phrase is "risk weighted." An item of data or an asset is not real unless it is "risk-weighted," which is why there is such a kerfuffle between banks, governments, regulators and the press, as there are so many different philosophies and calculations for this. Risk weighting underlies the calculation of Tier 1 capital; it is the number that underlies an organization's "license to operate." Nothing happens without it being credibly produced.

These "risk weighted" numbers need a whole mass of consistent, validated, audited data behind them.

Data provision and management surrounding risk management applications and departments over the past two decades have been, at best, cottage industries, with deliverables piled up over the years with different underlying technologies, designs, data models, half-finished projects, day-to-day heroics from risk operations staff and a blind eye(s) from management and regulator.

The risk management systems themselves were siloed by asset class, acquisition, project failure or exhaustion, multiple sources of "nearly the With more than 1,500 clients, including the world's top 10 banks*, we know what it takes to support the industry's leaders.



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"Most risk managers tell me that if they had a solid base of reliable, consistent, validated data, this would be the most important contribution to enhancing risk management across all risk types"

Hugh Stewart, SmartStream

same" trade data, regions, departments and politics—to name but a few reasons. Furthermore, risk measurement and management were, and still are, separated by the type of risk being measured, ie, market, credit, liquidity, operational *et al* often because of a combination of methodology, politics, technology constraints, granularity of analysis and department. This is despite the way they all inter-react and affect each other and are risk components/factors of each other.

One of the first unifying factors should be data. Most risk managers tell me that if they had a solid base of reliable, consistent, validated data, this would be the most important contribution to enhancing risk management across all risk types.

Baskan: New financial regulation has virtually forced banks to act: their riskier

activities now carry greater constraints, such as tougher capital and liquidity requirements. Customers say regulators have also been pushing particularly hard on liquidity and stress testing.

A modern liquidity management system should manage the full spectrum of an institution's enterprisewide liquidity, from intraday to future dates. The system should support all the various roles and functions involved in managing the institution's liquidity—including risk management operations, cash management operations, funding operations, and payment and settlement operations—using a timely, complete, and consistent set of liquidity flow and balance data.

The system should also provide the following capabilities: emerging technological innovations promise significant potential improvements in liquidity management; new integration tools and event stream processing/complex event processing software support the development of on-demand and real-time applications that can absorb large volumes of data from several disparate systems already in place in an institution, helping normalize data and calculate the multiple resulting positions.

These technical advancements make the ideal of a high-capacity enterprise liquidity management system a viable reality. An ideal solution should provide information on a 24/7 basis to monitor and manage real-time cash and collateral positions as well as forecasting positions from intraday into the future.

Firms often favor a phased approach when embarking on a reference data technology project. Where are the typical quick-wins? Have you seen examples of projects that have succeeded in realizing benefits in a short space of time?

Brower: Getting good governance is an easy win. You don't have to invest a lot of money, and you don't need a lot of high-end technology. The reason many data programs fail is lack of governance. Governance allows people to establish priorities, internal standards, and policies based upon the needs of their firms.

Stewardship is hard, but that is also important. Everyone having direct access to data is somewhat of a total flaw. It's very expensive and hard to do accurately.

In addition, I would recommend starting to think about your enterprise data model. What are your fields and terms? What do you use to describe a coupon? What do you use for risk? Ensure you have a common business vocabulary. This will enable departments to communicate and systems to integrate.

If you don't have a common vocabulary and start mapping data, you are never even going to know if you have the data one time or 500 times. When you want to integrate a system, you need to know what data you have.

Olson: The reality is that organizations cannot shut down their businesses to fix their data management problems, so a phased, integrated approach is the only way forward. Kingland's experience is that leading organizations view enterprise data management programs as a journey, where the business is supplying the fuel. Second, the solution to data problems is not always throwing more technology at the problem. Instead, thoughtful organizations look at processes, policies, people, technology, and the data itself and then launch the appropriate technology projects. This integrated approach requires that any data initiative must be tightly coupled with the busi-

"New financial regulation has virtually forced banks to act: their riskier activities now carry greater constraints, such as tougher capital and liquidity requirements"

Sinan Baskan, Sybase

ness imperatives. This "coupling" must be real, not just using the word "alignment" on a Microsoft PowerPoint slide, which is something we see occuring in organizations.

When data initiatives are coupled with the business, phasing and quick wins come naturally. Kingland recommends beginning the journey with a technology platform that can scale across data domains and has the robustness to meet your enterprise's needs. For example, one organization has started with capturing and cleansing a small set of data on its key counterparties, with the next step to include a securities master. The platform it selected offered it the flexibility of having multidomains, configured to manage these different domains in a single "box." As this solution has specific industry accelerators, they were able to realize benefits in less than one year.

McMorrow: Enterprises are typically allergic to long-running mammoth projects for all kinds of good reasons—huge spend before realizing any proven benefit, potential derailment through stakeholder changes and so on and so on. So phased, useful chunks is clearly the way to go, as long as they are genuine steps to the strategic long-term goal rather than dreaded 'tactical' steps corrupted by quick-win paranoia. A strategic refer-

ence data project can easily suffer death by a thousand tactical cuts. If this transpires, then call it out early and accept that the strategic project is unattainable. One successful example I saw was the road map for an enterprise data warehouse, which deliberately sourced reference data in the sequence of ease of data acquisition to demonstrate the benefits of enabled data analytics as early as possible, and to maintain momentum through frequent iterations. The sequence was biased towards practicality over idealism.

Newbury: Data is quite an emotive subject and whenever emotions are involved, quick wins are hard to achieve. The best way to ensure a good result is to plan properly in advance. Reference data projects need to have strong governance, communication and delivery plans. Units within firms lose faith when deliveries are missed or plans are unclear because data is the lifeblood of their operation. Any quick wins are only achievable by setting up an effective steering group and project group and an agreed data model and operating model.

Vendor selection should only be made after these are in place as until the full requirements are known from all business units and the operating model, the search for a vendor risks being less fruitful down the line. Once you reach





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"Any quick wins are only achievable by setting up an effective steering group and project group and an agreed data model and operating model"

Richard Newbury, SIX Telekurs

this stage, then, clearly, a rational data model from a vendor is a major selection criterion, as is the ease of implementation of the various solutions as well as the global reach of a single database of information, which avoids multiple coding tables and inconsistencies when vendor data is held in different databases.

Stewart: The "quick wins" are often progressive, discrete steps that are leading to a bigger goal or objectives. We measure these in weeks rather than months, often delivering in days but living with the natural latency of financial service organizations that extend the time-line.

Also, it is important to link the commercial aspect of the initiative's outcomes, which lock in the business case. Our clients have received very quick commercially correlated bene-

fits by us supplying clean exchangetraded data, focusing on particular impactful data items and rolling it out. This allows clients to execute the transformation to new data sources and get their downstream processes used to pure clean data while removing the processes that had been put in place to compensate for dirty data. It is important the whole endto-end process is planned, executed and co-ordinated to capture all the commercial benefits.

For example, SmartStream DClear has improved data quality and accuracy at one firm from 70+% to 99.2%. The commercial terms were tightly correlated to the delivered outcomes.

Performing periodic data de-duplication and synchronization of postdata management processes releases huge amounts of wasted operational resource into more value-added tasks. Data has sometimes been distorted by the in-house data management system or just missed, and then gone downstream where there are positive and negative distortions. Some of these distortions can have costly impacts, and there is a syndrome where the problems "cluster" and give geometric impacts. We can simply rectify and clean up and replace, involving the client in necessary four-eye workflow exceptions.

The use of a data dictionary in a disciplined way enables the possibility of "quick wins"—symbology cross-reference is achieved quickly; connections to data vendors, exchanges and new sources are radically accelerated and there can be significant re-use of technology and design. New interfaces can be designed and delivered faster and more reliably, while old systems and data repositories and their associated direct and indirect costs can be removed.

It is the very essence of diverse financial organizations' systems and processes that there is a Babel of symbology that is very amenable to being "solved" progressively and achieving a "quick win." Very often, different services from the same vendor have alternate or incomplete symbology compared with each other; sometimes clients need to cross reference other vendor or internal symbology. The achievements of these are "quick wins" that deliver value and provide an organically growing, reusable and dynamic data management framework. This only evolves successfully if it is underwritten by a comprehensive data model, a well-designed and always used data dictionary that reflects the organization's data governance and policies supported by easy-to-use interfaces. In so doing, the "quick wins" become longterm victories.

Baskan: We're seeing a tipping point among our customers in the FSI area from the RDBMS database-dominant era to the analytics space.

A global investment bank headquartered in New York had a large Sybase footprint with ASE 12.5, Replication Server, SAP's Business Objects, DB2 and KDB. The bank's pain came from using a traditional OLTP server and performing reporting and analytics on the same server. With large numbers of users querying the database, reports were taking six to eight hours to return.

The bank wanted faster performance, a short implementation time to market, little or no change to user applications and the ability to store more historical data online.

The bank set up a three-way competitive POC with performance and time-to-market being key objectives of the POC. The POC met all the bank's requirements in two weeks after the Sybase team took the bank's data run through Sybase IQ, including porting 90 percent of the ASE Stored Procedures to Sybase IQ with little modifications.

The bank was blown away by the results, and getting queries that used to take 35 minutes back in 18 seconds. The deal was closed earlier this year and, furthermore, the bank was so impressed it committed to a second Sybase IQ deal.

The Tech Foundation

Inside Reference Data speaks to Gert Raeves, research director, capital markets, TowerGroup, about building a data management function fit for the future



Gert Raeves

What do you see as being the main reason for firms to upgrade reference data technology?

Regulation and risk are asking questions existing processes and tech cannot easily answer. Data management projects should reduce this growing "data response time." To have any chance of meeting the requirements of regulators and risk managers, developing an independent data management function is a necessary step.

What dimensions should firms focus on when building a business case for investing in reference data technology?

How does the business case stand up to a relentless "wash, rinse, repeat" cycle? You are going to go through many iterations of on-boarding, maintaining and integrating data, so scale and repeatability are important. It should also become cheaper to do with every new phase. More important, however, is budgeting for end-user training and coaching. Adoption rates will make or break the business case and determine the long-term success.

When should firms buy off-theshelf, and when would internal build be a better option?

Unless they have a mature and documented data management function, firms lack the necessary insight into the cost structure of their business process and the technologies they use. You have to get good at the business of data management before you can decide how to implement.

What will data management technology vendors focus on going forward? What new types of functionalities are on the horizon?

The two ends of the technology spectrum: scale and speed on one end, and usability on the other. Vendors are investing to make sure systems and users do not choke on the new data that will enter data management platforms.

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