



## Industry models for financial markets

### Executive summary

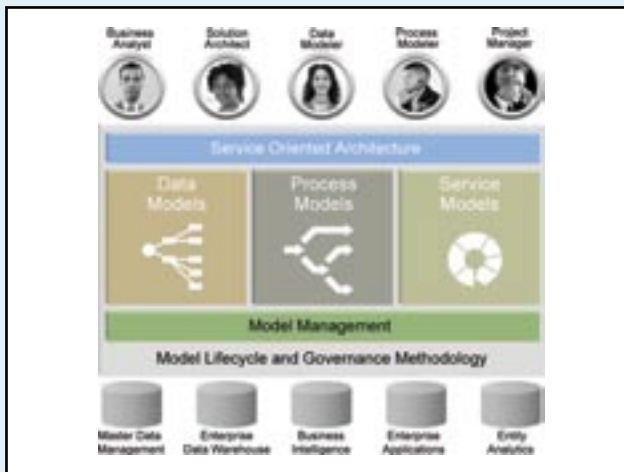
Changes in market mechanisms have led to a rapid increase in the number and size of hedge funds and the burgeoning, widespread use of program trading and real-time algorithmic execution. Where trade size has decreased, trade volume has increased, challenging the limits of even the most sophisticated data-management platforms.

In addition, reporting requirements such as Basel II, Sarbanes-Oxley Act (SOX), Advanced Notice of Proposed Rulemaking (ANPR) and International Financial Reporting Standards have forced firms to place a high priority on the production and storage of accurate and consistent data. Anti-money laundering, payment regulations and evolving directives such as the Markets in Financial Instruments Derivative (MiFID) are mandating that sell-side firms, for now at least, consider collection and storage of high-quality transaction and execution data to provide transparency, reduce costs and enhance the client's experience.

As a result, financial firms have begun to reexamine ways to increase the speed at which they can respond to an increasingly informed and demanding customer base, new regulations and emerging marketplace changes. Often however, a complex web of legacy silos, disparate systems, redundant functionality and excess capacity prevent financial firms from achieving the agility and flexibility needed to operate on demand. This complexity

results in redundant processes, excess costs and an inability to leverage and retrieve critical information when and where it's needed.

These complex business models must be simplified—not unit by unit, process by process or product by product, but across the entire organization. Financial services organizations need to establish a common framework and language of the business concepts, standards and data definitions to ensure their IT investments contribute to a consistent and, flexible architecture. This strategy helps reduce the expense of integration and increase the velocity and accessibility of information. But while that may be the end goal, there are many steps involved. For many organizations the question is, where and how to get started?



IBM Industry Models speak the language of business.

That's where the IBM Financial Markets Industry Models comes in. It's a comprehensive suite of models comprising of data, process and service-based models that help financial firms accelerate the planning and requirements analysis of business process transformation, core system renewal and consolidated reporting solutions. It contains the proven business knowledge and best practices required to support critical business issues and ensure that IT projects are linked with business requirements. In addition, it provides a common blueprint of an overall framework for handling risk management and regulatory compliance, as well as re-engineering, broadening and standardizing core business processes or implementing new business process architectures. Together, these capabilities can help you gain a more complete understanding of customer buying behavior, loyalty and the effectiveness of your marketing activities.

This executive brief explains how IBM can help your company leverage the Financial Markets Industry Models. In addition, it outlines the specific resources IBM has developed, including:

- **Financial Markets process and service models**, a content-rich set of models designed specifically for financial firms to enable the creation or optimization of enterprise-wide processes, and the supporting SOA services and component-based development.
- **Financial Markets data models** that provide a blueprint for a comprehensive data warehouse and analysis templates for use by business intelligence applications.

## Industry models for financial markets



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### Vision for the future

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To gain a clearer understanding of the future of the industry, the IBM Institute for Business Value, in cooperation with The Economist Intelligence Unit, conducted a global survey of more than 400 financial markets executives representing the buy side, sell side and processors, as well as academics, plan sponsors, industry associations and regulatory bodies. The interview and survey spanned 61 countries in the Americas, Asia and Europe. Nearly three-quarters of those surveyed believe that the industry will be significantly different in 2015, yet 46% rated themselves as only moderately able to respond to change.<sup>1</sup> In response, IBM developed quantitative models that combine historical perspectives with potentially disruptive forces to create a vision of the future — with actionable recommendations.

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### Simplifying processes to maximize profitability

Over the years, many financial firms have accumulated a complex infrastructure made up of isolated systems rigidly tied to their own processes, systems and specific channels. It's estimated that nearly 70 percent of budget goes to maintaining these legacy systems. The result is that there is very little flexibility to adapt to changing consumer, regulation and marketplace changes. For example, something as simple as building new management reports for a new area of the business can require significant time and costs. At the extreme end, a major product rollout can take years to fully implement across all lines of business and geographies.

Financial firms can no longer afford to have information and analysis capabilities duplicated across inflexible channel or system silos that drain IT resources and inhibit responsiveness. Business users need consistent, relevant information to combat the new trends through better decision making, innovative products and superior service. For compliance measures, financial firms must maintain data for reporting requirements, adapt quickly to new regulations and ensure

processes are consistent across products and channels. Inaccurate information can expose the company to significant regulatory and government compliance risk.

The Component Business Model from IBM can help by simplifying the way financial organizations look at their operations. Viewing business activities as autonomously managed components that can be optimized individually for greater value to the whole business enables decision makers to cut through historical boundaries that may have built up along organizational, product, channel, customer, geographical and informational lines.

It enables financial firms to see efficiencies and places where components can be reused across the organization. For example, the vast majority of the different regulatory initiatives require data to be collected, analyzed and reported in different formats and under different timescales. But the data needed to comply with one regulation may also be required for other regulations. By collecting data once and making it available across integrated structures, insurers can save significant time and costs as well as helping to ensure consistency. Or a business process such as loan origination can be built once and then reused across different areas, such as savings, mortgage or equity.

A natural extension to the Component Business Model, the Financial Markets Industry Models from IBM is easily customized to cover specific requirements. The Financial Markets Industry Models help financial firms identify, describe and structure all of the business functions, data and processes in an objective manner that can be understood by both IT and business users.

## Industry models for financial markets

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### Implementing process and service models from IBM can help you:

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- Identify opportunities to streamline and outsource processes and be more responsive to customers.
  - Reduce time-to-market with new products, such as online portfolio management.
  - Strengthen the financial services network by integrating multiple channels.
  - Integrate a merger and legacy systems more quickly.
  - Reengineer processes to comply with regulatory requirements, potentially releasing capital for additional lending capacity.
  - Facilitate a reliable mechanism for information availability across the organization such as customer data integration.
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In addition, they can help establish a streamlined, efficient organization where services are built once and reused many times across multiple lines of business, enabling organizations to:

- *Identify and prioritize initiatives for delivering business value.*
- *Create a single source of customer information and reporting efforts.*
- *Achieve a single architecture to address all compliance issues over time.*
- *Employ a comprehensive and consistent dictionary for describing business issues, applications and components.*

Financial organizations can leverage the entire framework, including:

#### ***Process and service models***

While many financial firms want to reengineer and standardize their core enterprise-wide business processes, it can be difficult to know where to start. Many business processes that have essentially the same purpose are ultimately carried out in very different ways in various organizational units of financial services organizations. The different process flows are typically the result of multiple siloed systems that have come from years of mergers and acquisitions, with varying levels of automation, multiple organization structures and the continued introduction of new products and channels. Eventually, these overlapping processes can significantly increase costs and complexity, while decreasing flexibility and customer service. These problems are exacerbated by mergers and acquisitions, new products or channels and multiple lines of business.

## Industry models for financial markets

The truth is that while they are called different things, many of these business processes have essentially the same purpose and should therefore be the same process. Using a framework enables you to streamline processes across the organization, eliminating existing redundancies, while enabling you to:

- *Deliver a consistent customer experience across channels.*
- *Decrease IT costs needed to support disparate processes.*
- *Introduce best practices in an enterprise-wide fashion.*
- *Facilitate compliance efforts with policies and regulations.*

Unfortunately, capturing and coming to an agreement on definitions can be a major stumbling block for many organizations. The IBM process models play a critical role by helping insurers analyze and compare their own business processes to best practice business processes, such as marketing and customer relationship management, in a disciplined, objective manner. The models cover major areas of financial services processes such as:

- *KYC/account opening*
- *Lending and syndicated lending*
- *Mortgages and wealth management*
- *Savings, investments and deposits*
- *Sales and relationship management*
- *Product and marketing management*
- *Payments, regulatory and compliance*
- *Human resource administration*
- *Trade processing*
- *Best execution/MiFID*

They describe the most important step-by-step processes within an organization, ranging from front to back office functions, such as sales and marketing management, payments, lending, and HR administration. Pre-analyzed and tested templates are populated with 80 percent of the content required to describe banking operations, giving process re-engineering projects a quick start. These templates can be used to re-engineer existing approaches or to deploy new capabilities. In addition, they provide a consistent, enterprise-wide lexicon for identifying and naming organizational activities and the triggers within key business processes, and a fast path to an enterprise-wide business process architecture and documenting business requirements. The end result is the potential for huge savings in development time and resources during the analysis and design stages of a business process reengineering project.

The IBM service models enable business and IT to agree upon the scope of services to be developed and deployed within a service-oriented architecture (SOA). Specifically, they enable analysts and developers to capture business requirements through the use of cases, thereby identifying appropriate service definitions that form the entry point into an underlying integration infrastructure. For example, organizations can leverage them to:

- *Create common business components for core system renewal projects.*
- *Provide service definitions that implement the process models.*
- *Enable the deployment of enterprise-wide information as a service.*







### IBM Insurance Data Warehouse

Just as processes have become a tangled web of complexity for many financial firms, the information needed to understand customers and operations is often spread across numerous information silos and in multiple formats. The problem is not a shortage of data or reporting systems—it's the fact that it's not available in a consolidated and business analysis format that clearly indicates trends, patterns or other forms of analysis.

Getting relevant information into the hands of business users can help you combat industry challenges through better decision making, consistent reporting, differentiated products and superior service. This means delivering information to the users in a form that directly mirrors the Key Performance Indicators of the business. The data feeding these KPI metrics needs to have been pre-integrated and of sufficient data quality. Defining the KPIs and the IT infrastructure necessary to bring the data together is a complex task.

For example, you can use a data warehouse to develop a coherent strategy to respond to the pressures of increased competition, globalization of the business and product innovation. The more value you can achieve upfront when implementing a data warehouse by reducing time and costs, the more immediate and quantifiable results you'll see.

The platform-independent data models offering contains thousands of hours' worth of development effort and expertise to help business users and IT staff implement business-ready analysis templates (business solution templates) and an enterprise data warehouse on time and on budget. Customized to meet specific needs, the models provide the blueprint to help bring data from various disciplines together for a single, unified view of the enterprise data to facilitate segmentation and profiling, data mining, channel profitability analysis and campaign management using the Business Solution Templates. It offers the scalability and flexibility needed to address existing and future data consolidation requirements and can be customized to meet specific needs. The models can be integrated with an existing data mart or business

### The IBM Financial Markets Data Warehouse:

- Deliver competitive advantage by enabling the consolidation of clean data across multiple channels, and products.
- Support rapid implementation of warehousing solutions with meaningful data.
- Facilitate a structured approach to subsequent customization and extension of the data warehouse.
- Enable business users to more effectively control and reduce the time taken to scope their requirements.
- Provide a solid basis for statutory reporting and relationship management supporting decision support and executive information applications.
- Reduce the burden of compliance measures such as Basel II, SOX and MiFID.
- Can save on development costs.
- Reduce the risk of failure by facilitating an incremental approach to delivering integrated reporting repository.

information warehouse reporting environments or other data applications such as data miners.

Encapsulating extensive experience in delivering effective data warehouse solutions, the models help promote:

- *Enterprise risk management, finance and compliance reporting:*
  - *Basel II*
  - *Sarbanes-Oxley Act*
  - *International Financial Reporting Standards (IFRS) and IAS*
- *Single view of customer, product and channel profitability*
- *Maximization of wallet share*
- *Customer loyalty and retention*
- *Marketing campaign management*

## Industry models for financial markets

### IBM Industry Models Advantage

**Proven**—Seven of the top ten insurance companies and the top three banks worldwide are using the IBM Industry Models in various facets of their business-driven IT strategies, such as risk and compliance reporting.

**Business-ready**—The models are proven to foster collaboration and approval between business and IT, as necessary, to turn business requirements into actionable solutions.

**Regulation aware**—Subject matter experts have distilled compliance regulations into statutory reporting requirements without the need for external development.

**Comprehensive**—Content garnered from multiple client engagements is turned into a suite of interrelated data models with a proven methodology and models that require minimal customization.

The Financial Markets Data Models also include Business Solution Templates (BST) that once implemented are used by the business user with a Business Intelligence tool. They comprise a set of over 35 templates that support the rapid definition, scoping and development of commonly required business analysis requirements (KPIs) such as customer profitability, wallet share analysis, customer attrition analysis and liquidity analysis. The BSTs cover major areas of financial services information, such as:

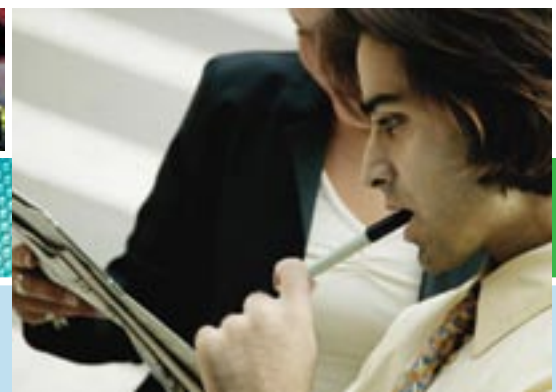
- *Regulatory and compliance*
- *Risk reviews and task compliance*
- *Enterprise Risk Management*
- *Growth in hedge funds/buy-side firms*
- *Algorithmic/program trading*
- *Organization and governance*
- *Data governance*

### Summary

By unlocking information contained in individual applications and repositories from a variety of silos and vendors and making it readily available to the people and processes that need it, the IBM Financial Markets Industry Models can create a foundation for future projects, help you respond to (and comply with) regulatory and compliance requirements and enhance your clients' experience.

The comprehensive Financial Markets Industry Models solution exploits a range of components from across the IBM software platform as well as best-in-class Business Partner applications. These include some or all of the following:

- *IBM Threat and Fraud Solution*
- *IBM Information Server—for delivery of trusted, consistent and re-usable information*
- *IBM DB2® Data Warehouse Edition—integrated platform for dynamic data warehousing*
- *IBM WebSphere® Customer Center—real-time, transactional customer data integration*
- *IBM Rational® Data Architect—enterprise data modeling tool*
- *Business Intelligence applications—tools from IBM Business Partners*
- *IBM WebSphere Business Services Fabric—for modeling, assembly and deployment of business services*
- *IBM WebSphere Process Server—for consistent, secure execution of processes with transactional integrity*
- *IBM Rational Software Architect—for UML-based, model-driven service and application development*
- *IBM WebSphere Business Modeler—for modeling and optimization of business processes*



## Why IBM?

IBM understands that clients require a strong long-term partner for strategic and complex initiatives. That's why IBM:

- *Has spent decades helping businesses generate, manage and extend their strategic financial initiatives.*
- *Invests over US\$1B annually in information management research and development.*
- *Employs more than 1,500 consultants and service professionals dedicated to data warehousing and data management with experience gained from over 250 data warehouse, business process and SOA engagements.*

## For more information

To find out how IBM can help you create value by leveraging IT to solve your key strategic business challenges, contact your IBM representative or IBM Business Partner, or visit:

[ibm.com/software/ips/products/industrymodels](http://ibm.com/software/ips/products/industrymodels).



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<sup>1</sup> IBM Institute for Business Value,  
Economist Intelligence Survey

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