

Instant® Financial Services, Liquidity and Liability Management



KEY BUSINESS BENEFITS

- Robust and highly scalable analytical risk engines powered by Watson®
- Customer relationship level data model
- Full InstantVision integration powered by Watson® or Legacy Business Intelligence (BI) systems
- Integration of Risk, Performance Management, Customer Insight, and Financial Compliance

Instant Financial Services, Liquidity and Liability Management (LLM) helps financial organizations measure and monitor interest rate risk, liquidity risk, and foreign currency risk. This solution, embedded in our InstantLedger® and InstantVision®, measures and models every proforma, deposit, and banking portfolio individually, using both deterministic and stochastic methods. An organization's financial risk assessment is now available instantly in this next-generation solution, which may be fully integrated with an organization's current legacy analytical application and shares a common account level relational data model.

Controlling the Complexities

In these economic times more than ever, managing balance sheet risks is paramount. To consolidate the management of risks, the treasury department must have a consistent framework for gathering data, measuring risks, monitoring changes, and acting on decisions, all done on a timely basis. Legacy systems provide little or no interoperability and only enhance the complexities of this process.

Instant Financial Services LLM meets these challenges. First, the Instant financial services data model provides a repository for capturing the true financial characteristics of each customer relationship. These characteristics drive the modeling and behavior of these relationships. Assumptions about ongoing business activities, such as behavioral models and prepayment assumptions, are stored independently to separate today's risks from tomorrow's actions. In the process of simulating future activity, over 200 financial measures are produced for every item on the balance sheet, ensuring accuracy of forecast and appropriately determining a strategic response.

Instant Financial Services LLM also provides the high-end analytics (powered by Watson®) necessary to meet all your risk management goals, including value-at-risk (VaR), earnings-at-risk (EaR), market value, duration/convexity, income simulation, liquidity, and interest rate gap. You control the levels at which results are aggregated, both in terms of the time frequency (modeling buckets) and the product categorization.



KEY BENEFITS

- Instant Data Intelligence on all payments received, worldwide
- Promotes a transparent risk management culture
- Delivers actionable customer and product profitability insight, instantly
- Delivers pervasive intelligence throughout the enterprise

Multicurrency

Instant Financial Services LLM provides features that address both the operational and analytical complexities of operations in multiple currencies. While payments are being received, your currency risk is being determined, and alerts are being systemically driven to an organization’s FX management team for review and action. Because the payments were just accepted by the organization, there is time for strategy and change if necessary.

Also, within the system, you can define unique structural product characteristics, pricing methods, valuation, and new volume activity for every product and currency combination. To measure balance sheet sensitivity to currency fluctuation, you attach exchange rate scenarios to interest rate forecasts. Instant Financial Services LLM also provides rate conversion calculations to adjust to an internally consistent value, irrespective of the initial quote basis. These rate conversions adjust for yield or coupon format, as well as different compound and accrual bases.

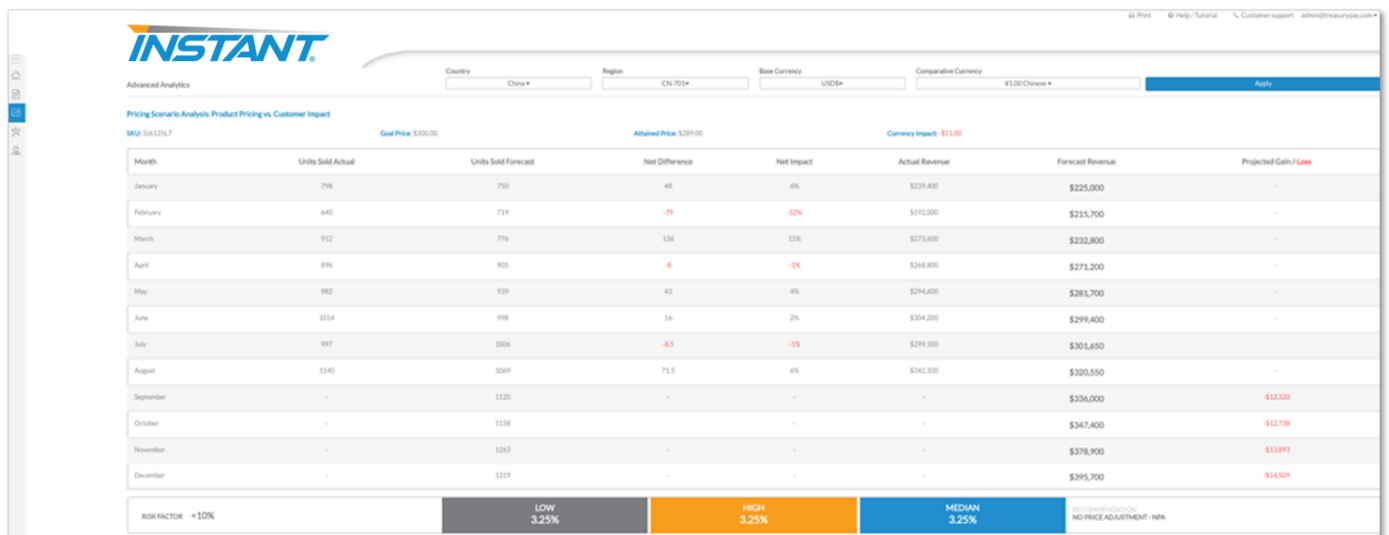


Figure 1. Instant Revenue Modeler – Data driven by Watson®.

Wealth of Output Information

Instant Financial Services LLM calculates and stores a variety of financial risk indicators:

- VaR, EaR, and probability distributions
- Static and dynamic market value, duration and convexity
- Static and dynamic gap (based on both repricing and liquidity)
- Income simulation

The system captures a wide range of information, from the VaR of the entire organization to the daily cash flows on a single customer relationship. Income cash flows are available on an actual as well as a transfer priced basis for any number of predefined rate paths. Gap results include principal runoff, repricing runoff, interest

cash flows, and interest accruals. All of this takes place on financial information that most organizations don't even see today.

Rigorous Calculations

Instant Financial Services LLM is designed to operate on transaction-level data, using Instant's highly accessible and flexible financial data model. Each account, as well as all forecasted new-business activity, is modeled independently on a daily cash flow basis.

Instant Financial Services LLM generates market valuations of instruments with embedded options, VaR projections, and EaR projections using a highly-tuned Monte Carlo simulation process. Within a Monte Carlo process, you choose one of four term structure models, including Vasicek, Extended Vasicek (Hull — White), Merton, and Ho — Lee model. State-of-the-art modeling techniques are integrated into this process. The Monte Carlo engine prepares the risk-free curve, using complex cubic or quartic spline smoothing techniques. For no-arbitrage models, the Monte Carlo engine constructs a Hull and White trinomial lattice for yield-curve calibration.

To optimize performance, random number generation methodologies are enhanced with low-discrepancy sequence techniques. This advancement from crude Monte Carlo enables you to improve time to convergence by a factor of 10 to 1 on average, while still maintaining the proper distribution of results necessary for at-risk analysis.

Rather than requiring you to specify a single confidence level, the VaR and EaR calculators provide a complete value probability distribution over the specified "at risk" period for individual portfolios as well as for the entire balance sheet. If desired, system-generated rate paths are created and analyzed to better explicate the riskier scenarios.

Liquidity Risk Modeling

Cash flow and liquidity gap modeling results are accumulated in daily, monthly, or yearly buckets to meet a variety of modeling needs, including liquidity and cash management tasks. You have full flexibility to configure your modeling buckets based on specific organizational reporting needs.

Instant Financial Services LLM processes data at any level required, from the entire balance sheet to targeted portfolios defined by filtering on specific characteristics.

Multi-factor prepayment and early redemption behavior models are also provided, allowing users to build custom models or use embedded algorithms for estimating principal runoff behavior across a wide range of deterministic and stochastic scenarios. You configure your assumptions to reflect varying changes in your cash flow profiles due to changes in interest rates, economic drivers, and other external factors.

Flexibility in Process Management

One of the most important aspects of an asset liability model is data integrity. Many models “assume away” data issues, severely restricting the level of accuracy available from the model. In the Instant Financial Services LLM applications, all data has been “normalized” to fit your needs throughout the organization. The data integrity within the system is “bankable,” meaning – it carries all of the requirements to ensure accuracy and accountability, both Instantly.

Calculations on today’s balance sheet are processed and stored independently of new origination modeling. With Instant, the information is stored in a single, secure environment. With API driven technology, data elements are no longer siloed, independent points of separation, but instead fluent customized pieces of information that generate financial intelligence across the organization.

Flexibility in Assumption Management

Built-in models are designed to meet the needs of a variety of products and markets and provide a truly international solution.

All Instant Financial Services LLM assumptions are completely separate from the detailed data. Each assumption is saved separately and distinctly. You create an unlimited number of assumption rules to provide a comprehensive review and thorough understanding of all likely rate risk situations.

Enterprise-Wide Analysis and Reporting

Instant Financial Services LLM leverages state-of-the-art Business Intelligence technology to manage the information. LLM results are delivered through a unique Business Intelligence offering—InstantVision. This business intelligence offering fully leverages the key features of IBMs Watson®, including exchange rate risk specific dashboards, standard monthly management and regulatory reports, and a robust environment for ad-hoc reporting. InstantVision controls the detail of the output information by showing you the big picture, as well as drilling down to reveal the impact of individual products on your risk profile.

The InstantVision solution contains customized pre-built data models with over 3,000 metrics, more than 60 dashboards, and 100 seeded reports to choose from. It employs best practices in Business Intelligence design based on Instant’s experience. Organizations can use out of the box reporting, or easily edit existing or create new reports tailored to their needs.

RELATED SERVICES

The following services support Instant Financial Service Liquidity and Liability Management Product:

- Product Support Services
- Professional Services

Some of the many pre-built risk measures deployed specifically in context for LLM reporting include:

- Metrics for historical trends including month ago, quarter ago, year ago
- Ability to select benchmarks for processes, scenarios, or rates
- Benchmarks for changes in value and relative percentage changes
- First, last, and average results over time
- Functions for ranking results

Architecting the Right Solution

Instant's Financial Services LLM applications are integrated solutions based on "industry best practice" components. Solutions are assembled with confidence because you know all of the pieces fit together: data, analytics, business rules, dimensions/hierarchies, and reporting. Although designed to be delivered on an integrated basis, each of these product components can:

- Stand on its own as a best-of-breed solution
- Undergo implementation in any order and on either a simple or sophisticated basis
- Support ongoing evolution of analytical methodologies



CONTACT US

For more information about Instant Financial Services, Liquidity and Liability Management, visit inst.com or call +1.800.503.2505 to speak to a Instant representative.

Integrated Cloud Application & Platform Services

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Instant is Committed to Developing Practices and Products that Help Protect the Environment