CoreLogic®

PORTFOLIO
ANALYTICS

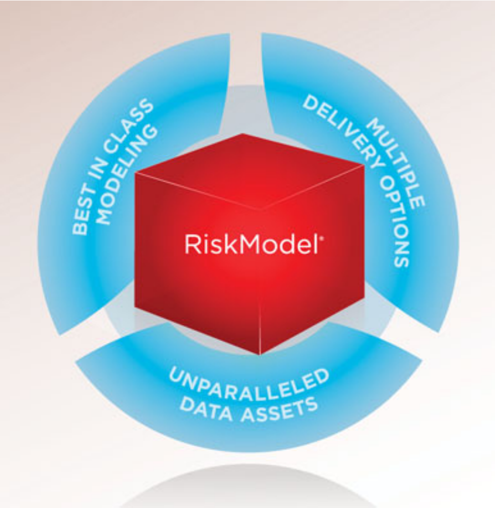
RiskModel®

Extended to Cover Agency Risk

Built on the industry's largest and most robust loan performance datasets, RiskModel® forecasts mortgage prepayments, defaults, losses, and loan-level cash flows for whole loans and securities.

RiskModel lets market participants at every stage of the mortgage lifecycle assess both short-term and life-of-loan risks at the loan and portfolio levels, including:

- Prepayments, defaults, losses, cash flows
- Changes in mortgage status including current and all stages of delinquency
- Terminal events, including voluntary prepayment and two forms of liquidation
- Probability of default (PD)
- Loss given default (LGD)
- Loss severities



RiskModel combines unmatched data and best-in-class modeling with multiple delivery options.

For years, large banks, investors, and regulators have relied on RiskModel to evaluate loans and securities, manage credit risk, set risk management policy, and validate capital decisions.

Recently, mid- and smaller-size institutions have begun to see RiskModel as a cost-effective solution to help them meet the new accounting, reporting, and stress-testing requirements.

New RiskModel AGENCY

We recently added RiskModel AGENCY to the RiskModel suite of mortgage behavioral models. This agency-focused credit and prepayment model is as effective in predicting performance for the higher-credit-quality asset class as our non-agency models.

Drawing upon servicer-contributed agency-type mortgages from the vast CoreLogic Loan-Level Market Analytics (LLMA) mortgage performance dataset, RiskModel AGENCY extends the RiskModel non-agency transition framework to predict voluntary and involuntary prepayment risk and all stages of delinquency for agency loans. It provides separate sub-models for fixed and adjustable rate mortgages and direct modeling treatments for loan modifications.

The RiskModel AGENCY development dataset covers twelve years of origination and performance observations with in-sample validations occuring over this same time period. To further validate the model, out-of-sample back-tests were conducted using performance data recently released by each of the GSEs.

Highlights

- Residential mortgage prepayment, delinquency, default, cash-flow forecasts
- Transition and Loss Given Default (LGD) models for prime, alt-A, subprime, and second lien mortgages
- New RiskModel AGENCY extends non-agency transition framework to predict performance risk for agency loans
- Fully integrated CoreLogic HPI™ historical indices and simulator, enabling property value estimates to be updated monthly at the ZIP code-level and simulated at the CBSA level
- User-controlled "dials" that allow precise adjustments to performance or client-portfolio parameters
- Customizable reporting capabilities that can easily feed projections or vectors to Intex for structured agency credit risk (STACR) and non-agency securities analysis and valuation
- Cost-effective stress testing and impairment analysis capabilities

Myriad Uses

RiskModel can perform a number of critical tasks, including:

- Analysis of STACR bonds – providing investors with new insight into the propensity and magnitude of future credit events associated with STACR reference pools
- Stress testing and accounting for bank-owned and other entities' holdings
- Mortgage servicing rights (MSR) valuations – given its granular breakout of delinquency states and focus on prime conforming collateral, RiskModel AGENCY is a more appropriate choice for MSR valuation than traditional prepayment models
- Banks can stress-test non-agency RMBS holdings and whole loan portfolios, measure risks and expected performance of their holdings to facilitate OTTI and GAAP distressed-asset requirements
- Broker-dealers and investors can measure risks on current RMBS holdings, identify arbitrage opportunities, and exit positions that will ultimately yield undesirable ROIs
- Originators can realistically assess available whole-loan transaction options and evaluate likely future outcomes if they pursue securitization

There's No Such Thing as a One-Size-Fits-All Model

RiskModel's model calibrations can be user-customized to address a wide spectrum of factors. The "dials" framework allows models to be tailored to fit the current market environment in the near-term while transitioning to long-term equilibrium. A model's sensitivity to roll-rate transitions and severity estimates can be quickly modified for loan characteristics like:

- Loan modification
- Payment history
- Product type
- Occupancy
- Vintage
- Documentation
- Delinquency status

Built by Modelers, Statisticians, Financial Software Engineers

RiskModel software—designed, built, and tested by a team of experienced economists, statisticians, and financial software engineers—provides clear, realistic, reliable projections of likely future mortgage performance. Its predictive methodology is based on solid economic theory that incorporates both traditional and proprietary predictive variables.

Historically, only the largest financial institutions have had the capability of replicating the levels of effort, expertise, and data resources that have been dedicated to RiskModel. But new rules and regulations now mandate that smaller institutions employ more sophisticated risk modeling to satisfy their stress testing, capital allocation, and reporting requirements.

Data You Can Trust

RiskModel's performance monitoring accuracy wouldn't be possible without the extraordinary collection of data assets assembled and maintained by CoreLogic:

- **LoanPerformance™ Securities database** – covering 97% of all non-agency MBS and ABS securities, worth more than $840 billion
- **Loan-Level Market Analytics (LLMA) database** – covering 42 million active mortgages, 76% of all residential mortgages, worth $7.6 trillion
- **The LLMA-derived agency residential mortgage dataset** – covering more than seven million servicer-contributed active agency loans
- **CoreLogic HPI** – timeliest, most comprehensive U.S. housing price index data, used by both the Federal Reserve and the OCC

We assemble and manage our data with one overriding goal in mind—deserving your trust. We do everything we can to be sure you can trust the quality, veracity, timeliness, and veracity of our data, no matter what database you use.

Four Ways to Access RiskModel

In order to minimize friction in using RiskModel, we offer it four ways:

1. **Desktop Graphical User Interface (GUI)** – RiskModel's Windows-based GUI gives you access to its sophisticated analytics through an easy-to-use desktop screen
2. **RiskModelDIRECT™** – our non-agency RMBS vectors data service, generated by RiskModel and specified using CoreLogic HPI Forecasts™, is available via SFTP. You can subscribe to all MBS/ABS datasets or customize the portfolios. You can integrate RiskModel vectors with structured finance modeling tools—like INTEXdesktop™ and INTEXcalc™—or through select third-party partners
3. **Application Programming Interface (API)** – using a Microsoft® Windows®-based customizable API, you can automate your analytics research and reporting by integrating it directly into your company's existing systems and infrastructure
4. **Advisory and professional services engagements** – you can actually save money by engaging our advisory and professional services teams to do the heavy lifting—identifying and understanding your requirements then supplying just the RiskModel-based analytics you need. Our teams can also work with our analytics experts to develop calibrations specially customized for unique portfolios

FOR MORE INFORMATION PLEASE CALL 415-536-3500

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