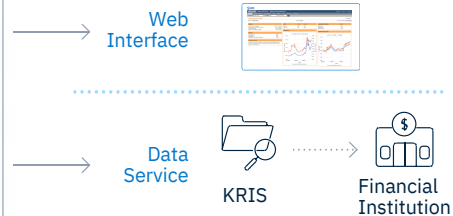


Credit risk as exemplified by the 2008 financial crisis and recent bank failures has moved to center stage of financial risk practice. This is due to wider credit problems concerning securities and financing, counterparty credit risk, long term settlements, and a lack of analyzing market and credit risk together rather than in silos.

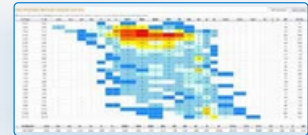
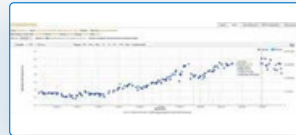
KRIS Default Probability models offer investment managers accurate and timely estimates of both conditional monthly and cumulative default probabilities out to ten years. These include full term structures of default probabilities.

The service includes Default Probabilities, Implied and Future Credit Rating distributions, and Implied Credit Spreads, together with bond trade data from FINRA and bond analytics that explicitly link default probabilities and spreads. KRIS models are available for Public Companies, Sovereigns, and US Banks.

- Financial Statements
- Economic Data
- Market Data
- 20+ Years of Research



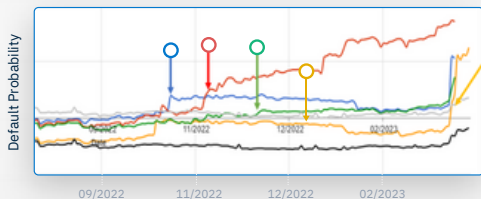
Used by regulators, hedge funds, asset managers, export banks, and central banks globally



- Full-term structures** of default on over 42,000 public companies in 76 countries.
- Complete Transparency** on the methodology and model coefficients which can be applied to VaR and sensitivity/hedge analysis.
- Daily US bond trades** analyzed and a ratio of bond spreads to issuer default probability calculated daily.

- Daily default probabilities** based on available data.
- Future implied ratings** offers term structures of likelihood of future ratings, including probabilities of upgrade and downgrade.
- Implied ratings distributions** are statistically derived from actual rating history.

Early Warning of the Recent Crisis



Institution Name	1-yr KDP over 90th Percentile	1-yr KDP > 5-yr KDP
SIVB: Silicon Valley Bank Financial Group	October 21, 2022	October 21, 2022
SI: Silvergate Capital Corp.	November 7, 2022	January 5, 2023
FRC: First Republic Bank	March 9, 2023	March 9, 2023
SBNY: Signature Bank	December 6, 2022	March 10, 2023

Unique Source of Credit Insights

- Jarrow-Chava methodology** applied to proprietary default dataset
 - The only commercially available reduced form credit model, calibrated on a meticulously collected dataset of defaults with history spanning over three decades
- The shape of default probability term structures is significant**
 - Model, macro variable, and default data downloadable for integration into proprietary trading and risk processes.
- Integrate and optimize**
 - Early warning signals for companies heading into distress – based on both bond spread and default probability data.

For more information on KRIS please visit www.kamakuraco.com