

# Looking to assess the value and inherent credit risk in your loans?

**LoanKinetics** answers this critical need. Our multi-functional whole loan application that evaluates legacy and newly originated residential mortgage loans and is available under the **Kinetics** umbrella. It can be used to project credit performance, assess value (using multiple approaches), and perform loan loss analysis for reserving and understanding attribution. LoanKinetics also has embedded functionality to perform CCAR stress testing as well as user-defined scenario analysis.

**LoanKinetics leverages the power of LoanDynamics, our flagship, behavioral, pre-payment and credit model, and RiskValDynamics, our comprehensive scenario analysis and valuation tool.**

## Features and Capabilities

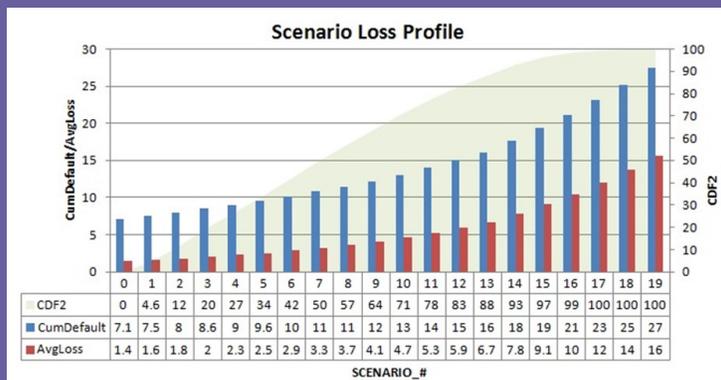
### Credit Performance and Loan Profile Ranking (LPR)

LoanKinetics provides default and loss projections under user-defined scenarios, as well as a built-in set of scenarios that address both economic and model risk. It combines projections of average loss and tail risk to derive at our proprietary rating for loans, LoanProfile Ranking (LPR), which assigns a rating from 1 to 10 based on the characteristics of the loan and associated borrower. A quick scan of LPRs across your portfolio helps you delineate high risk loans from low risk loans.

### Valuation and Price Sensitivity Metrics

LoanKinetics provides loan level valuation alternatives. This includes conventional methods such as yield, a single Credit Option Adjusted Spread (crOAS) approach, and our proprietary **Virtual Securitization method** that derives market implied pricing from multiple market crOAS levels, which AD&Co publishes on a monthly basis.

LoanKinetics generates multiple duration and convexity metrics at both the loan and portfolio level.



### Sample LK output: Scenario Loss Forecasts

LoanKinetics can be used to estimate loan level lifetime losses, nine-quarter loss, four-quarter write-offs, user-defined forward-period loss, tail risk, and other credit metrics.

Portfolio level values are estimated in relation to scenario probabilities.

Results are presented in detailed stratification tables.

# Features and Capabilities

## Comprehensive Scenario Analysis of Credit Performance

Designed to conduct various stress testing, LoanKinetics includes built-in scenarios for Comprehensive Capital Analysis and Review (CCAR), Current Expected Credit Losses (CECL) and Financial Accounting Standards Board (FASB) requirements.

## Loan Loss Attribution

LoanKinetics quantifies credit performance over time as a function of changes in portfolio composition and economic factors for loan loss attribution.

## Portfolio Stratification

By creating detailed portfolio stratification tables, LoanKinetics shows credit performance results by loan characteristics such as long-term value (LTV), FICO, weighted average coupon (WAC), weighted average maturity (WAM), doc type, state and others.

## Access, Delivery and Added Benefits

LoanKinetics is available only from AD&Co and can be seamlessly integrated into proprietary or third-party vendor systems. It:

- Includes a simple, dynamic and flexible Excel interface with illustrative reports for ad hoc analysis
- Allows users to run the application in batch mode using scripts
- Can be deployed as cloud-based for installation on multiple servers or accessed through a local intranet

Product users are afforded with:

- User guides and publications that report on model updates, technology developments and related market issues
- Superior client service for any product-related question or usage concern

### LoanKinetics is used by:

- Banks and Credit Unions
- Insurers
- Investment Managers
- Mortgage Bankers and Servicers
- Regulators and Guarantors



Andrew Davidson & Co. is a leading provider of risk intelligence solutions. Founded in 1992 by Andrew Davidson, we are internationally recognized for our leadership in the development of financial research and analytics for loans and MBS products, valuation and hedging strategies, housing policy and GSE reform, and credit-risk transfer transactions. With nearly 30 years of risk management experience and a deep base of market knowledge, our team of experts turn data into meaningful insights.

Based on LoanKinetics, additional products to consider include:

**RiskProfiler**, our most comprehensive solution for valuing mortgage-backed securities (MBS), asset-backed securities (ABS) and their derivatives and instruments used in hedging these assets.

## Leadership in Reliable Risk Intelligence