ANDREW DAVIDSON & CO

LDM LoanDynamics

Introducing Impact Trended Credit for LoanDynamics

Impact Trended Credit for LoanDynamics Model (LDM) with Revolver/Transactor (R/T) Metric
Thanks to a cooperative effort with Equifax (EFX), Andrew Davidson & Co., Inc.'s (AD&Co) Impact Trended Credit for LDM now includes Equifax's Revolver/Transactor metric that characterizes consumer behavior on their credit card tradelines over time. We can now quantify the impact of trended data on credit risk, prepayment rates, and the price of mortgage related assets such as loans, securities, mortgage insurance and servicing rights.

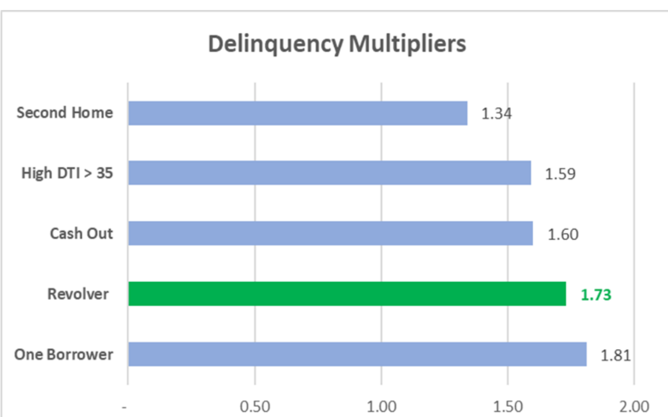
Transactors use credit cards primarily as a convenience and typically pay down their balances each month.

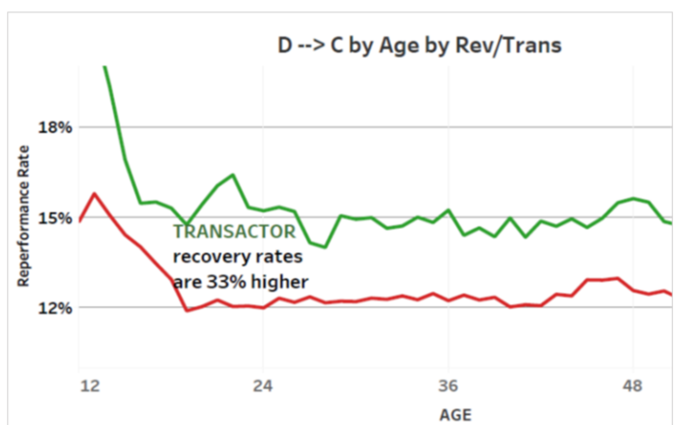
Revolvers carry credit balances and may increase their credit utilization over time.

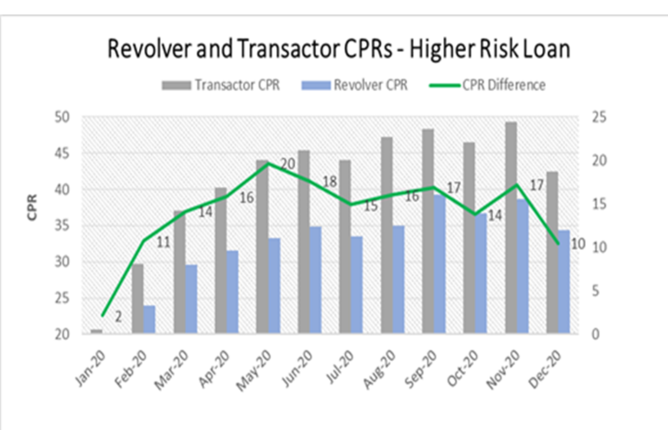
R/T Behavior

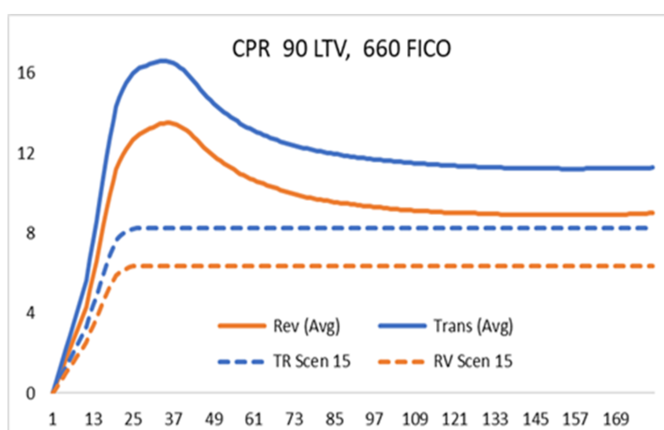
The R/T Metric improves Impact Trended Credit for LDM predictive accuracy over traditional credit scores alone.

- **Revolvers exhibit materially higher delinquency rates than Transactors, and recover less often.** The delinquency multiplier is larger than most well-known adjustments such as cash-out refi and high DTI. Significantly, this difference persists across all credit score levels which shows that the impact of R/T is independent of credit scores.
- **Transactors also prepay slower than revolvers.** For high-risk loans this difference averaged 30%.



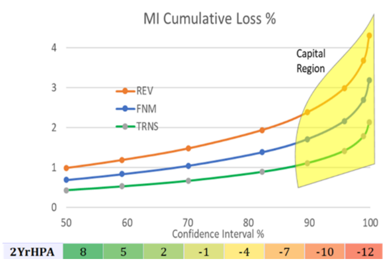


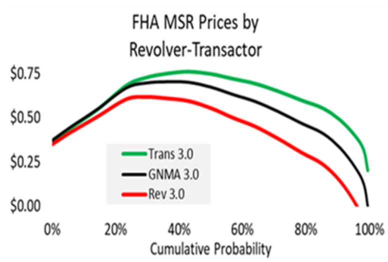


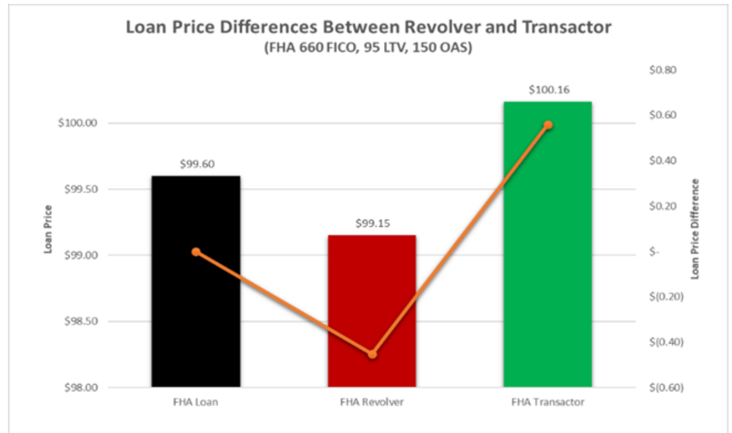


AD&Co analysis shows significant valuation and risk differences between revolvers and transactors.

Empirical behavioral differences result in meaningful differences in the value of mortgage loans, Mortgage Servicing Rights (MSRs), mortgage insurance, duration and capital.







Features and Capabilities

- Prepayments and defaults are forecasted with R/T borrower behavior
- Impact Trended Credit is featured within AD&Co's Agency LDM+ and Non-Agency LDM
- Enhances downstream stress testing for Comprehensive Capital Analysis and Review (CCAR), Current Expected Credit Losses (CECL) and Financial Accounting Standards Board (FASB) requirements

Additional Benefits

- Enhance AD&Co's cutting-edge analytical tools with Equifax's R/T data
- Improves credit availability for underserved populations in the mortgage industry
- 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

Access and Delivery

The R/T data available with credit files pulled from EFX and implemented seamlessly through Impact Trended Credit for LDM which is backward compatible with earlier LDM versions. Clients can improve valuation accuracy by combining Impact Trended Credit for LDM with a cash flow engine such as AD&Co's Kinetics (hyperlink Kinetics to webpage) platform or vendor platforms.

Impact Trended Credit for LDM can be used to quantify a broad range of mortgage-related assets in some 3rd party vendor systems, as well as through AD&Co's Kinetics platform. It can be used to value new originations or portfolios through a seamless process.

ANDREW DAVIDSON & CO

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 Impact Trended Data, additional solutions to consider include:

LoanDynamics is AD&Co's flagship prepayment and credit model that helps you manage interest rate and credit risks in mortgage loans by forecasting prepayment, delinquency, default and loss probabilities.

RiskValDynamics is our advanced valuation system for structured securities, including both agency and non-agency MBS.

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