

## Subprime Auto Loans Default

### Objective

Predict the proportion of principal that will be charged-off (see below) associated with portfolios of fixed-rate, amortizing subprime auto loans. That is, given a portfolio of loans, predict the accumulation of defaulted loan principal over the remaining life of the portfolio.

### Background

Financial companies originating auto loans often sell them to investors for a gain and to facilitate growth without needing to commit capital to their own balance sheet. Investors typically buy portfolios (or "pools") of thousands of such loans, which are backed by the financed automobiles, for a price that corresponds to the present value of expected loan pool cash flows, discounted at a required rate of return. Loan terms specify the notional schedule of cash flows. However, actual cash flows will primarily depend on the rate of default (i.e. charged-off unpaid principal), prepayment, and recovery of default (upon seizing and liquidating collateral). Defaults -- both the amounts and their timing -- are the most important unknown variable driving variability in portfolio cash flows. Fundamentally, the default profile of the pool depends on the credit characteristics of the borrowers (e.g. credit history, current financial position), underwriting characteristics (e.g. loan term and size), vehicle characteristics (e.g. value), and macro factors (e.g. unemployment).

The auto asset-backed securities (ABS) market facilitates a substantial amount of investing activity in this asset class. Since January 2017, issuers of public auto loan ABS must disclose on a monthly basis loan level data on the pool of loans underlying the ABS. This data is filed with the SEC (file type: ABS-EE) and includes borrower/loan/vehicle characteristics and realized cash flows. This publicly available data can be used to train an auto-loan default prediction model.

### Data Sources

The data are available at [FINSIGHT \(https://finsight.com/product/us/abs/ee\)](https://finsight.com/product/us/abs/ee). In the search box on the upper left-hand side search for:

- drive auto receivables trust 2017-2
- drive auto receivables trust 2017-3
- drive auto receivables trust 2018-1

FINSIGHT

US ABS

Search

US ABS Loan-Level Data (XML & CSV)

Overview of ABS-EE Asset-Level Disclosure

drive auto receivables trust 2017-2

New Issue Filings

All Filings

20

1

2

AUTO	Drive Auto Receivables Trust 2017-2	Strats	DT	DT	RD	Feb 14, 2019	ABS-EE
AUTO	Drive Auto Receivables Trust 2017-2	Strats	DT	DT	RD	Jan 14, 2019	ABS-EE
AUTO	Drive Auto Receivables Trust 2017-2	Strats	DT	DT	RD	Dec 14, 2018	ABS-EE
AUTO	Drive Auto Receivables Trust 2017-2	Strats	DT	DT	RD	Nov 14, 2018	ABS-EE
AUTO	Drive Auto Receivables Trust 2017-2	Strats	DT	DT	RD	Oct 12, 2018	ABS-EE
AUTO	Drive Auto Receivables Trust 2017-2	Strats	DT	DT	RD	Sep 14, 2018	ABS-EE
AUTO	Drive Auto Receivables Trust 2017-2	Strats	DT	DT	RD	Aug 14, 2018	ABS-EE
AUTO	Drive Auto Receivables Trust 2017-2	Strats	DT	DT	RD	Jul 13, 2018	ABS-EE