Predicting rate of return

at inception using Random Forests

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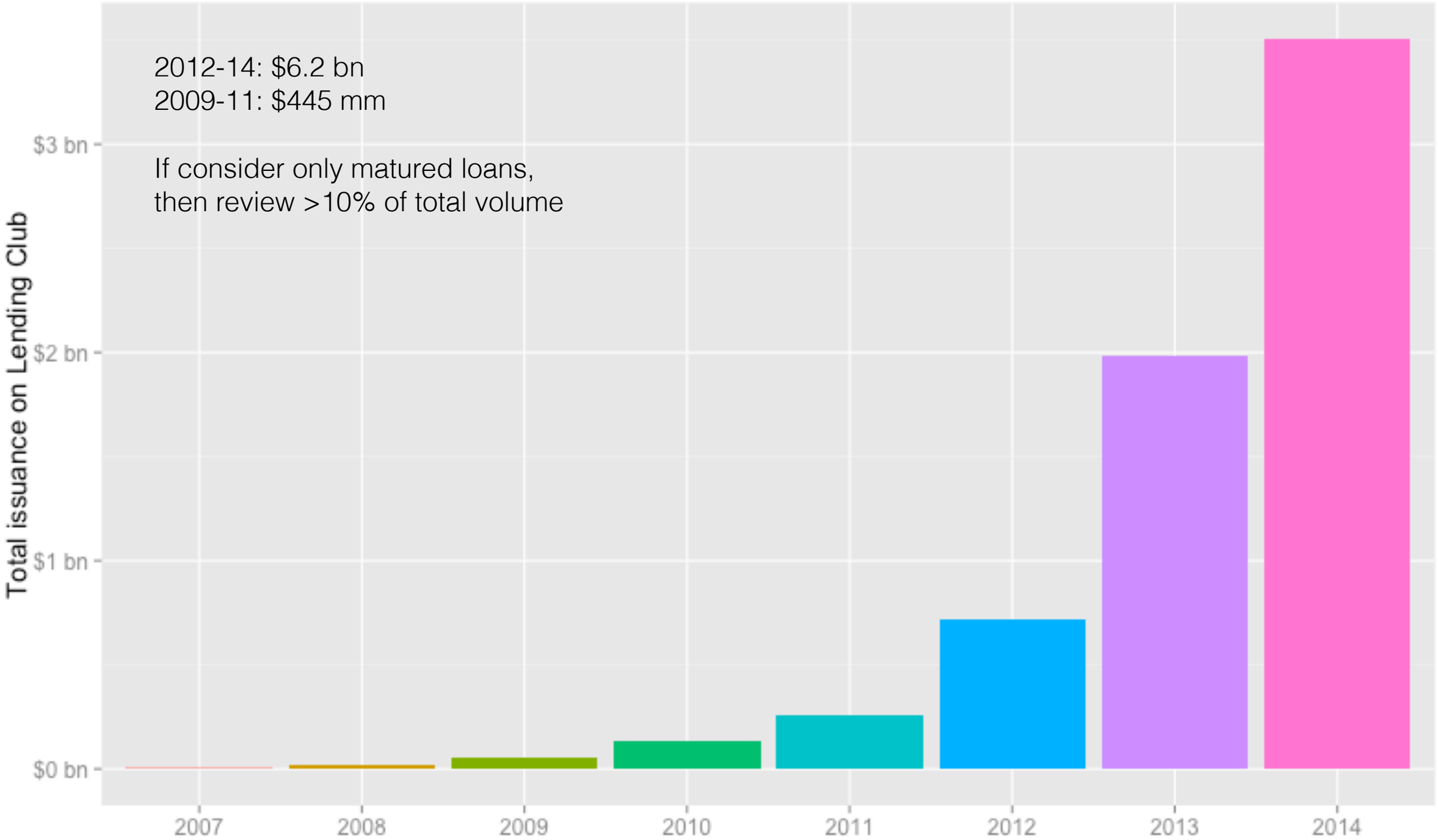
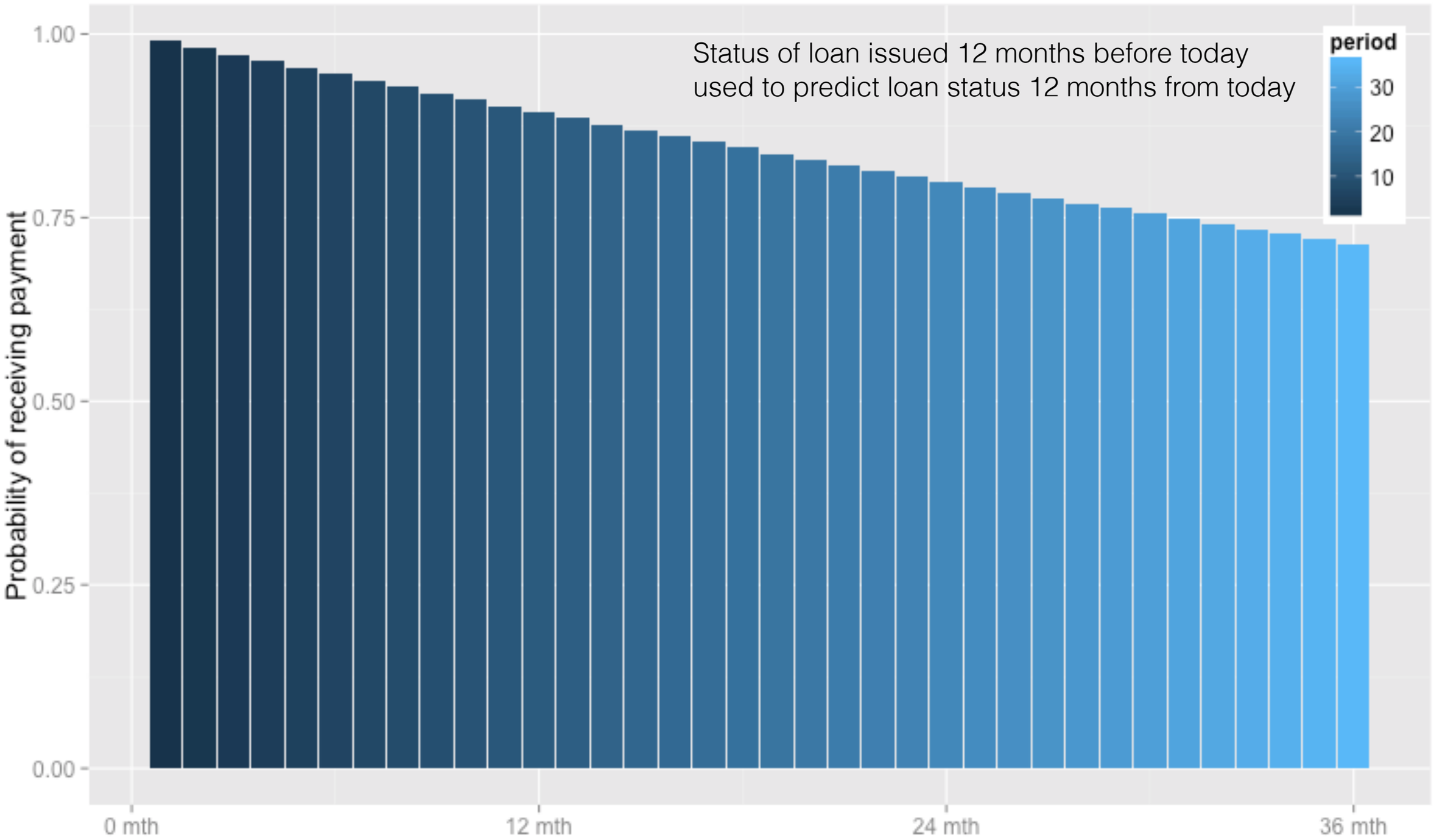
savarin/rateflask

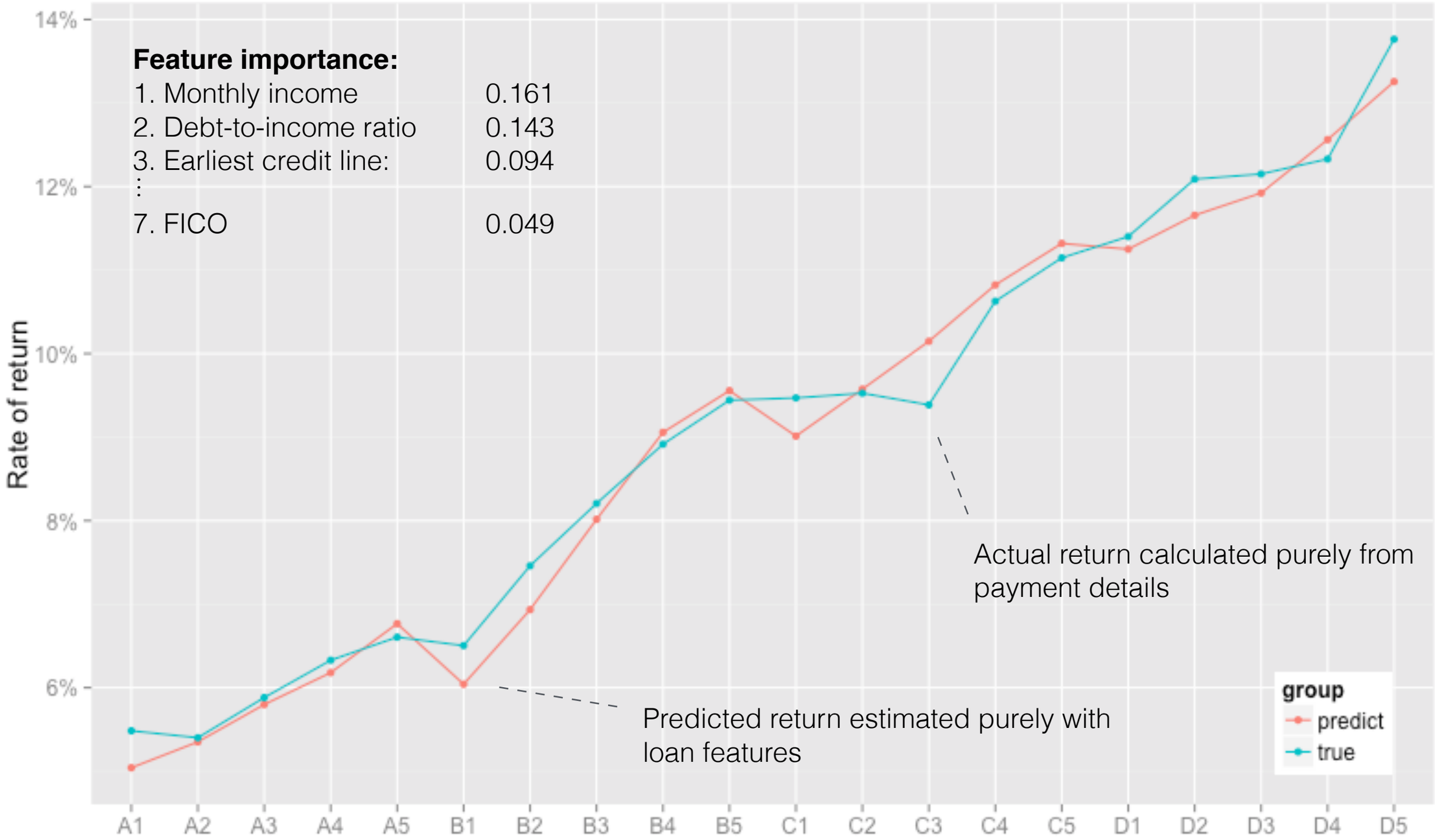
Why before loan matures?



What can we learn?



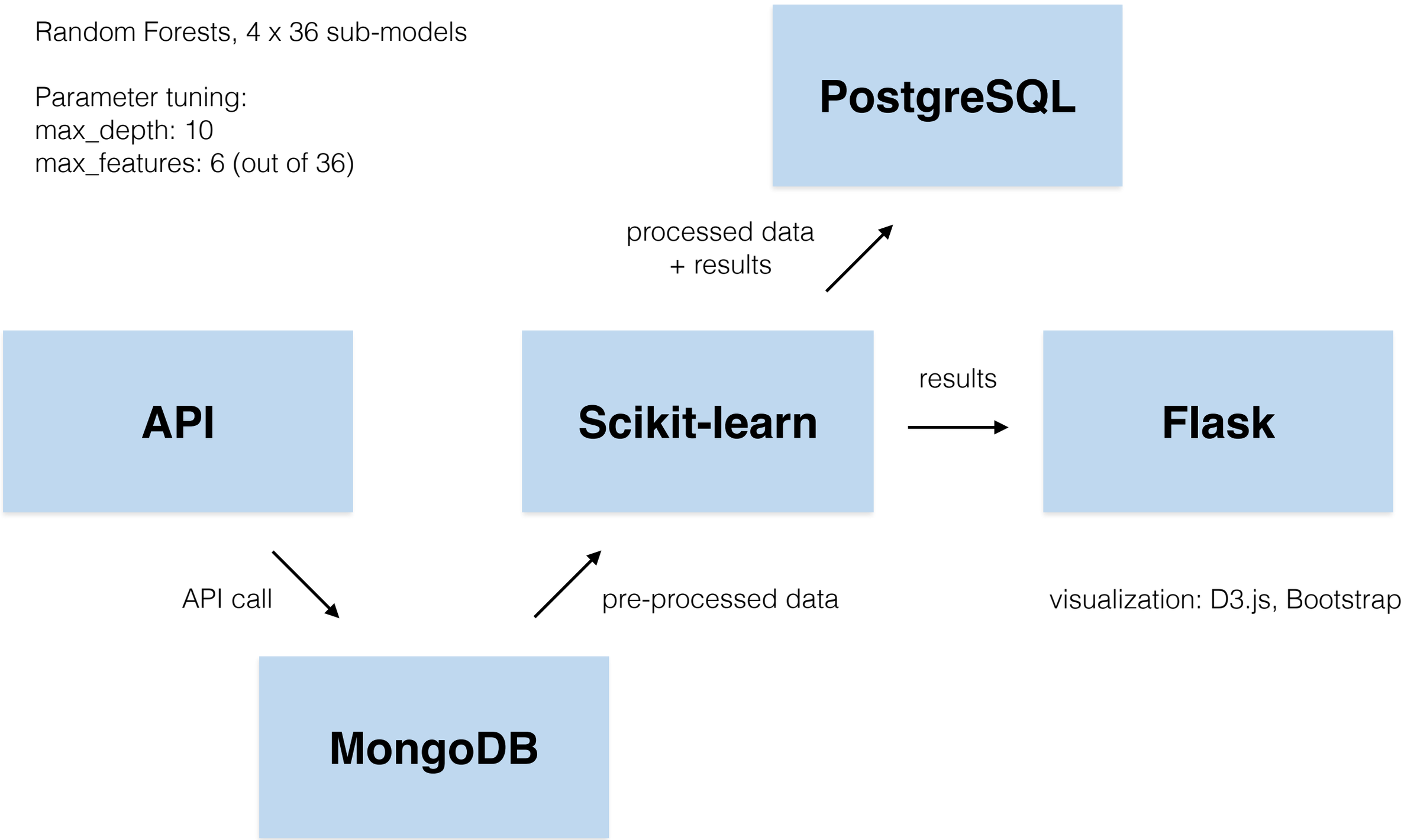
Does the model work?



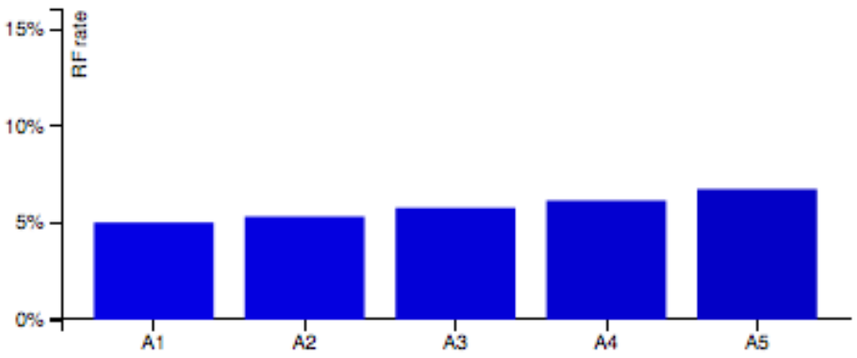
Pipeline of data product

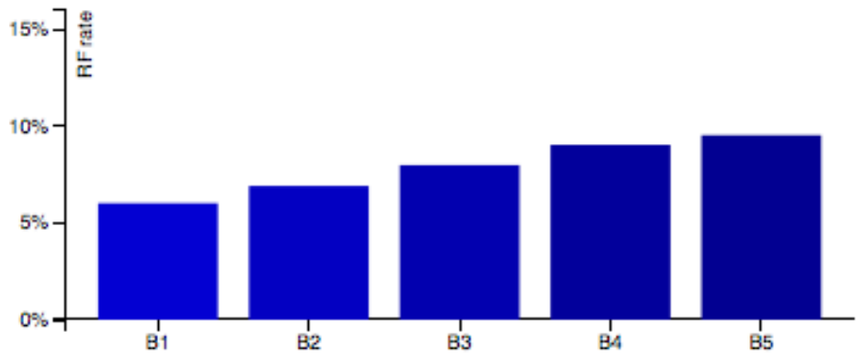
Random Forests, 4 x 36 sub-models

Parameter tuning:
max_depth: 10
max_features: 6 (out of 36)

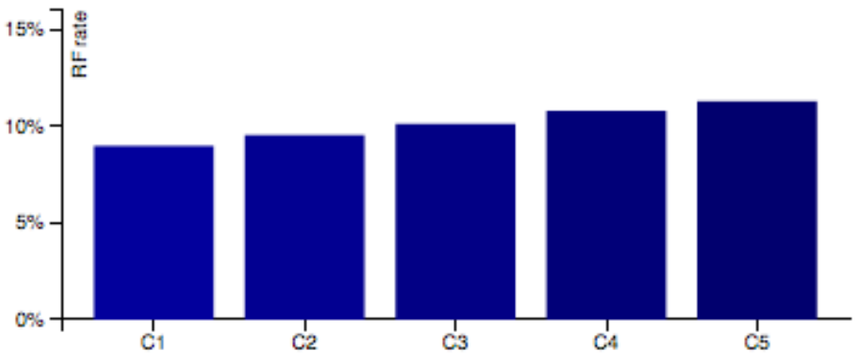


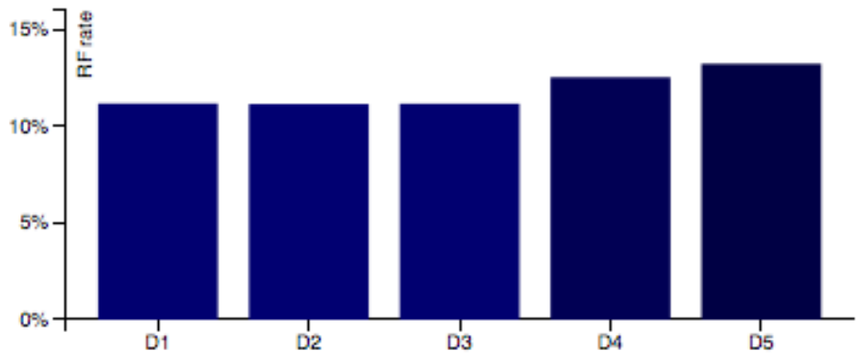
Screenshot





RF rate as risk-adjusted rate, charts show highest of each sub-grade





last update Mar 16 2015 10:38

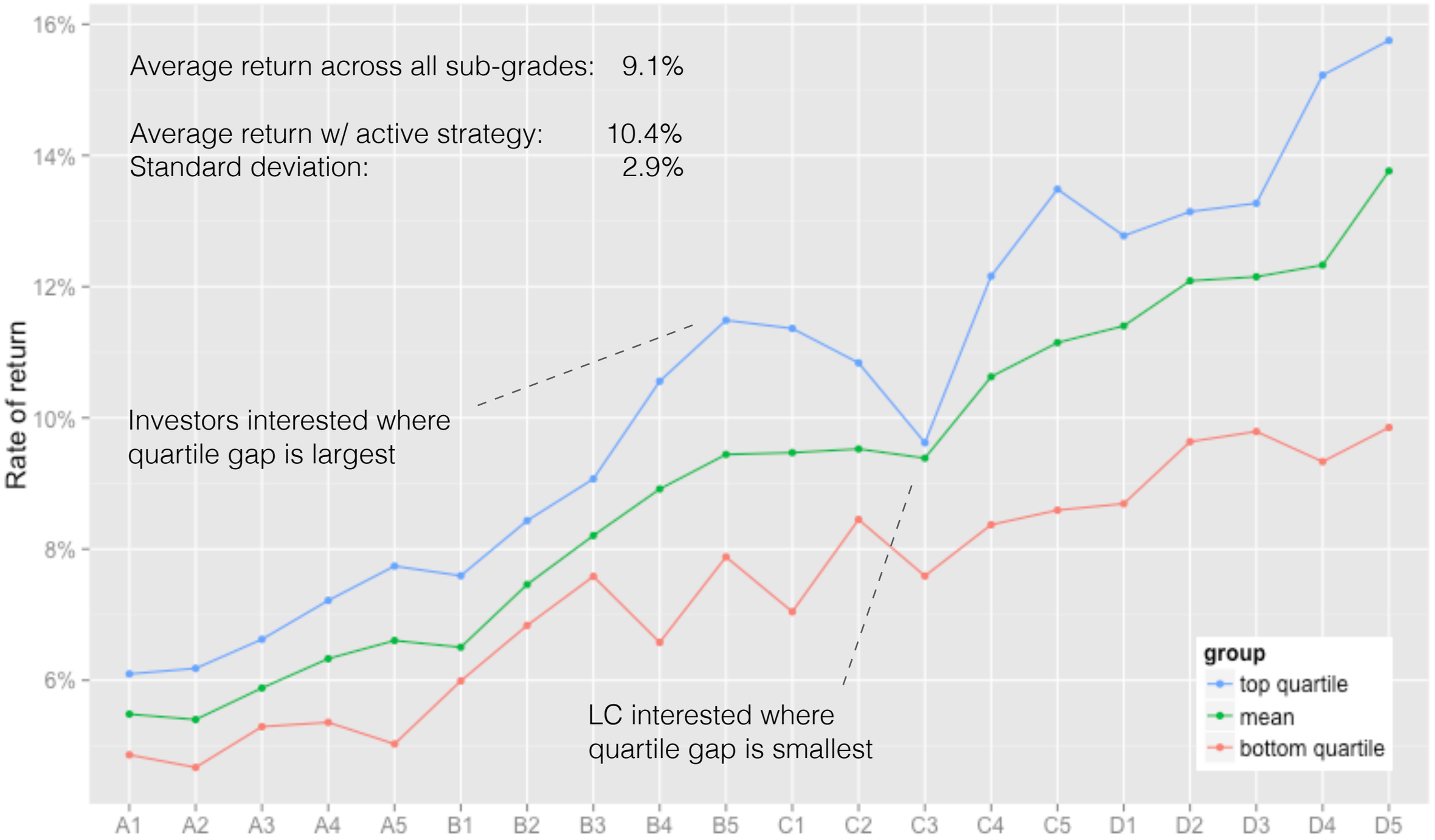
Show 10 entries

Search:

Loan ID	Sub-grade	Term	Amount	% Funded	LC rate	RF rate	% Difference
41052193	B3	36 mth	$25,000	51.0	9.99%	7.01%	30.0
41113241	A5	36 mth	$6,000	83.0	7.89%	5.56%	29.0
41122115	A5	36 mth	$24,000	69.0	7.89%	4.45%	44.0
41226320	A5	36 mth	$6,000	70.0	7.89%	6.83%	13.0
41276202	B4	36 mth	$7,200	38.0	10.99%	5.89%	46.0

Smallest difference b/w LC rate and RF rate indicate best risk-reward

Why should I care?



Domain knowledge

+

Machine learning

=

Deep insight