

Grow Your Automotive Lending Portfolio with Effective Risk-Based Pricing

Presented by

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Portfolio Driven Results

- Over \$5 Billion in auto loans
- Across 400 credit unions
- Average Credit Score 642
- Average Advance of 119%
- 13,760 Expected Defaults
- **13,657 Actual Defaults (99.2% on target)**



Auto Lending Landscape

- New Competition
- Rising Rates
- Abundance of Data

How do you determine your current interest rate pricing?



Common Issues with Today's Interest Rate Pricing

- Lending rates are a function of their competitive environment with rates being set at whatever the market will bear. This can often get Lending Institutions in trouble.
- Loans booked in hindsight at less than profitable spreads
 - Institutions can get in trouble
 - Drags on net interest margins
- If competition is making loans at irrational levels
 - What alternative products can the Institution offer to members and ensure profitability?
- Strongest arguments for a risk-based pricing model
 - Facilitate restructuring in ways that are "win-win" for both the Institution and its customers



What are the Benefits of Risk-Based Pricing?

- Accurately pricing risk ensures
 - Long-term viability of an Institution's ability to withstand the unpredictability of the economy
 - Provide an advantage over competition
- Lenders can position themselves as leaders in their markets for their ability to:
 - Accurately price loans
 - Serve a wider range of members
- Generate higher yields on non-prime auto loans
 - If loans are individually priced to include all costs involved in granting, funding, and servicing the loan
- By building an auto portfolio whereby each loan is priced appropriately for risk
 - Overall net yields are much higher and loan volume increases without cutting interest rates to the bone



What is True Risk Based Pricing?

- Allows lenders to **price individual loans** based on a wide range of characteristics not only including credit criteria but many other risk attributes
- Not only probability of defaults, but **severity**.
- A common misconception is that risk is measured by the level of losses we endure. It is not. Rather, **risk is a measure of the certainty we have about the level of losses.**



What We Do

We have built a near-prime auto lending program using the concepts shared today.

Proprietary Underwriting Engine

- Rules developed from over 17 years of underwriting experience and data analysis in near and non-prime lending
- Automated Underwriting decisions in less than 7 seconds

True Risk-Based Pricing Model

- Lender specific costs and ROA targets by risk tiers
- Decrease subsidies of borrowers across credit risk tiers
- Improve the ability to provide competitive rates to all borrowers
- Achieve ROA targets significantly higher than prime portfolios

Managed Default Risk

Default protection from two AM Best “A” rated insurers
Continuous evaluation of credit risk and loss trends



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What are the Costs Associated with an Auto Loan?

- Cost of Funds
 - Deposits or borrowing money
 - Average of all CU = 0.53%
- Loan Servicing
 - Cost to service and collect on loan
 - May vary by tier
 - Loss provision
- Marketing Expense
 - Dealer flats
 - Origination expenses
- Return on Assets
 - Net return to CU after all expenses



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Risk Attributes

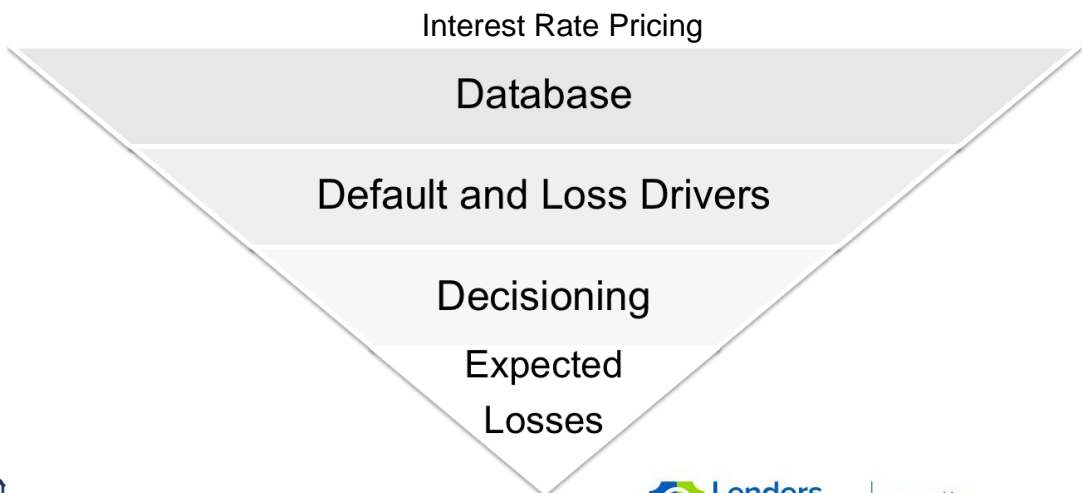
Contributors to Risk:

- Credit Score
- Origination Channel
- Loan Term
- Loan to Value
- Credit Depth
- New/Used
- Vehicle Make/Model – Depreciation Speeds
- Geographic Location



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Data Underlies The Process

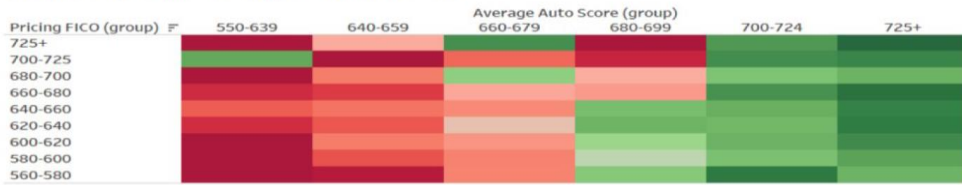


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Adjust for Different Risk Factors

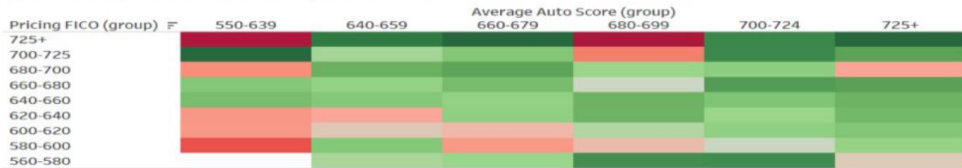
Ex 1-A

Loss Ratio by Original Pricing Fico and Auto Score

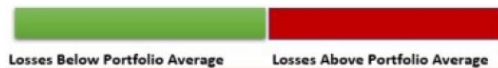


Ex 1-B

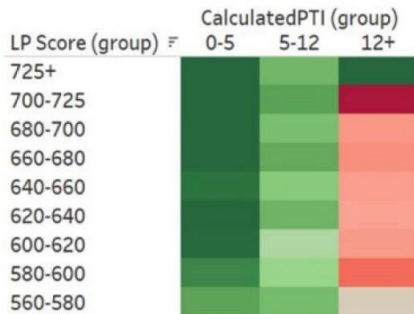
Loss Ratio by Pricing FICO incl Adj for Auto Score



Adjust For Different Risk Factors



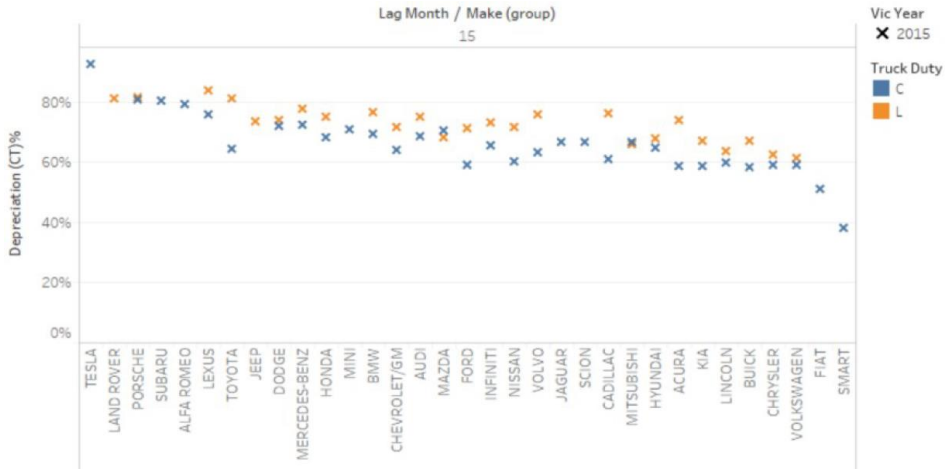
Loss Ratio by Calculated PTI



Calculated PTI Adjusted Loss Ratio



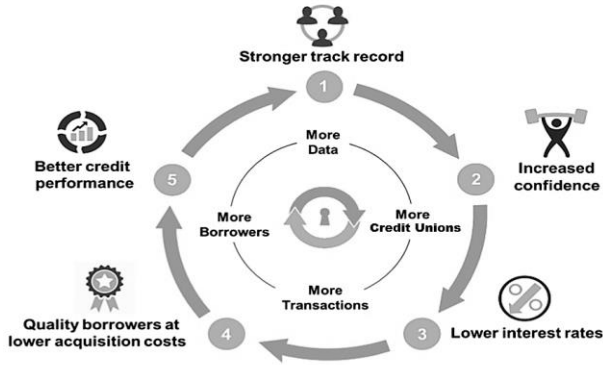
Measure For Severity Of Loss



Measure For Severity Of Loss



Ever Expanding Data Vault



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FIND THE HIGHEST RISK OF DEFAULT

Borrower	Borrower	Borrower
640	600	560
Credit score	Credit score	Credit score
125% Loan to Value	115% Loan to Value	125% Loan to Value
72 Month Term	72 Month Term	72 Month Term
Used Vehicle	Used Vehicle	Used Vehicle
Indirect Channel	Indirect Channel	Direct Channel
Default Rate	Default Rate	Default Rate



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Credit score	Credit score	Credit score
125% Loan to Value	115% Loan to Value	125% Loan to Value
72 Month Term	72 Month Term	72 Month Term
Used Vehicle	Used Vehicle	Used Vehicle
Indirect Channel	Indirect Channel	Direct Channel
18%	26%	24%



FIND THE HIGHEST RISK OF DEFAULT

Borrower	Borrower	Borrower
580	600	580
Credit score	Credit score	Credit score
95% Loan to Value	110% Loan to Value	115% Loan to Value
72 Month Term	60 Month Term	72 Month Term
Used Vehicle	New Vehicle	Used Vehicle
Thick File	Normal File	Thin File
Default Rate	Default Rate	Default Rate



FIND THE HIGHEST RISK OF DEFAULT

Borrower	Borrower	Borrower
580	600	580
Credit score	Credit score	Credit score
95% Loan to Value	110% Loan to Value	115% Loan to Value
72 Month Term	60 Month Term	72 Month Term
Used Vehicle	New Vehicle	Used Vehicle
Thick File	Normal File	Thin File
15%	33%	32%



FIND THE HIGHEST RISK OF DEFAULT

Borrower	Borrower	Borrower
640	640	640
Credit score	Credit score	Credit score
125% Loan to Value	125% Loan to Value	125% Loan to Value
72 Month Term	72 Month Term	72 Month Term
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125% Loan to Value	125% Loan to Value	125% Loan to Value
72 Month Term	72 Month Term	72 Month Term
Used Vehicle	Used Vehicle	Used Vehicle
Thick File	Normal File	Thin File
15%	20%	23%



CLAIM SCENARIOS

Repossess and sell the vehicle ABOVE 80% book value

Repossess and sell the vehicle BELOW 80% book value*

Loan Balance at time of claim Vehicle value at time of claim	\$20,000 \$10,000	\$20,000 \$10,000
Greater of: (A) Amount realized from sale of vehicle OR (B) 80% NADA Trade or KBB Wholesale	\$9,000 A=Sale Amt	\$7,000 A=Sale Amt
	\$8,000 B=80%	\$8,000 B=80%
Financial Institution Loss without Lenders Protection	\$11,000	\$13,000
Claim Payment (Plus 60 days interest)	\$11,000	\$12,000
Financial Institution Loss with Lenders Protection	\$0	\$1,000



Risk Based Pricing Design

Direct Yields										
Min LP Score	Cost of Funds (%)	Servicing (%)	Target ROA (%)	Target Yield (%)	Sale Proceeds (%)	Repo Fees (\$)	Origination Fees (\$)	Origination Exp (%)	Repo Fee Linear	Origination Fee Linear
750	0.70%	0.80%	2.00%	3.50%	75.00%	\$700.00	\$0.00	0.00%	☑	☑
700	0.70%	0.80%	2.25%	3.75%	75.00%	\$700.00	\$0.00	0.00%	☑	☑
680	0.70%	0.90%	2.50%	4.10%	75.00%	\$700.00	\$0.00	0.00%	☑	☑
660	0.70%	1.00%	3.00%	4.70%	75.00%	\$700.00	\$0.00	0.00%	☑	☑
640	0.70%	1.10%	3.00%	4.80%	75.00%	\$700.00	\$0.00	0.00%	☑	☑
620	0.70%	1.20%	3.25%	5.15%	75.00%	\$700.00	\$0.00	0.00%	☑	☑
600	0.70%	1.30%	3.25%	5.25%	75.00%	\$700.00	\$0.00	0.00%	☑	☑
580	0.70%	1.40%	3.50%	5.60%	75.00%	\$700.00	\$0.00	0.00%	☑	☑
560	0.70%	1.50%	3.50%	5.70%	75.00%	\$700.00	\$0.00	0.00%	☑	☑

Indirect Yields										
Min LP Score	Cost of Funds (%)	Servicing (%)	Target ROA (%)	Target Yield (%)	Sale Proceeds (%)	Repo Fees (\$)	Origination Fees (\$)	Origination Exp (%)	Repo Fee Linear	Origination Fee Linear
750	0.70%	0.80%	2.00%	3.50%	75.00%	\$700.00	\$0.00	0.00%	☑	☑
700	0.70%	0.80%	2.25%	3.75%	75.00%	\$700.00	\$0.00	0.00%	☑	☑
680	0.70%	0.90%	2.50%	4.10%	75.00%	\$700.00	\$0.00	0.00%	☑	☑
660	0.70%	1.00%	3.00%	4.70%	75.00%	\$700.00	\$0.00	0.00%	☑	☑
640	0.70%	1.10%	3.00%	4.80%	75.00%	\$700.00	\$0.00	0.00%	☑	☑
620	0.70%	1.20%	3.25%	5.15%	75.00%	\$700.00	\$0.00	0.00%	☑	☑
600	0.70%	1.30%	3.25%	5.25%	75.00%	\$700.00	\$0.00	0.00%	☑	☑
580	0.70%	1.40%	3.50%	5.60%	75.00%	\$700.00	\$0.00	0.00%	☑	☑
560	0.70%	1.50%	3.50%	5.70%	75.00%	\$700.00	\$0.00	0.00%	☑	☑



Sample Look at Our Rate Outputs

Origin: INDIRECT | New or Used: USED | Term: 90 | Credit Depth: [Select] | Update

LP Score	Depth	Loan to Value											
		0-85	86-90	91-95	96-100	101-105	106-110	111-115	116-120	121-125	126-130	131-135	
750+	THICK	6.1%	6.1%	6.1%	6.1%	6.2%	6.4%	6.6%	6.9%	7.2%	7.7%	8.3%	
	NORMAL	6.3%	6.3%	6.3%	6.3%	6.4%	6.7%	7.0%	7.3%	7.8%	8.4%	9.1%	
	THIN	6.6%	6.6%	6.6%	6.6%	6.7%	7.0%	7.4%	7.8%	8.3%	9.1%	10.0%	
700-749	THICK	6.5%	6.5%	6.5%	6.5%	6.5%	6.9%	7.0%	7.3%	7.7%	8.2%	8.7%	
	NORMAL	6.7%	6.7%	6.7%	6.7%	6.8%	7.1%	7.4%	7.8%	8.3%	8.9%	9.6%	
	THIN	6.9%	6.9%	6.9%	6.9%	7.1%	7.4%	7.9%	8.3%	8.9%	9.6%	10.5%	
680-699	THICK	6.7%	6.7%	6.7%	6.8%	7.1%	7.4%	7.7%	8.1%	8.6%	9.1%	9.7%	
	NORMAL	6.9%	6.9%	6.9%	7.1%	7.4%	7.8%	8.3%	8.7%	9.4%	10.0%	10.8%	
	THIN	7.1%	7.1%	7.1%	7.4%	7.8%	8.2%	8.8%	9.4%	10.1%	10.9%	11.9%	
660-679	THICK	7.3%	7.3%	7.5%	7.8%	8.1%	8.4%	8.7%	9.1%	9.5%	10.0%		
	NORMAL	7.5%	7.5%	7.8%	8.1%	8.5%	9.0%	9.4%	9.9%	10.4%	11.0%		
	THIN	7.7%	7.7%	8.1%	8.5%	9.0%	9.5%	10.1%	10.6%	11.3%	12.1%		
640-659	THICK	7.4%	7.5%	7.8%	8.1%	8.5%	8.9%	9.3%	9.8%	10.2%	10.7%		
	NORMAL	7.6%	7.6%	8.1%	8.5%	9.1%	9.6%	10.2%	10.7%	11.3%	12.0%		
	THIN	7.9%	8.1%	8.5%	9.0%	9.6%	10.3%	11.0%	11.6%	12.4%	13.1%		
620-639	THICK	8.0%	8.2%	8.6%	9.0%	9.5%	10.0%	10.6%	11.3%	11.9%			
	NORMAL	8.3%	8.6%	9.0%	9.6%	10.2%	10.9%	11.5%	12.0%	12.6%	13.2%		
	THIN	8.7%	8.9%	9.5%	10.2%	11.0%	11.7%	12.5%	13.1%	13.9%	14.6%		
600-619	THICK	8.2%	8.4%	8.8%	9.4%	9.9%	10.5%	11.0%	11.5%	12.1%			
	NORMAL	8.6%	8.8%	9.4%	10.1%	10.8%	11.5%	12.2%	12.9%	13.6%			
	THIN	8.9%	9.2%	9.9%	10.7%	11.6%	12.5%	13.4%	14.2%	15.1%			
580-599	THICK	8.7%	9.0%	9.5%	10.1%	10.7%	11.3%	12.0%	12.5%	13.1%			
	NORMAL	9.1%	9.5%	10.1%	10.9%	11.7%	12.6%	13.4%	14.1%	14.8%			
	THIN	9.5%	9.9%	10.7%	11.7%	12.7%	13.7%	14.7%	15.6%	16.5%			
560-579	THICK	9.2%	9.5%	10.1%	10.8%	11.6%	12.5%	13.3%					
	NORMAL	9.6%	10.1%	10.9%	11.9%	12.9%	14.0%	15.0%					
	THIN	10.1%	10.6%	11.7%	12.8%	14.1%	15.4%	16.6%					

- Default Freq – 13%
Prepay Freq – 42%
- Default Freq – 17%
Prepay Freq – 42%
- Default Freq – 20%
Prepay Freq – 43%



Market Competition

Lender	Average Score			Market Share		Tier 1	Tier 2	Tier 3	Tier 4	Tier 5	Tier 6	Tier 7	Tier 8	Tier 9	Tier 10
	TOTAL	NEW	USED	TOTAL	MARKET SHARE	300-559	560-579	580-599	600-619	620-639	640-659	660-679	680-699	700-749	750-850
Market Totals	670	**	670	4,736,068	100.00%	18.58%	16.53%	14.58%	12.67%	10.78%	9.26%	7.67%	6.62%	5.36%	4.28%
Market Totals	670	**	670	4736068	100.00%	18.58%	16.53%	14.58%	12.67%	10.78%	9.26%	7.67%	6.62%	5.36%	4.28%
ALLY	651	**	651	334032	7.05%	13.00%	12.40%	11.78%	10.98%	10.35%	9.74%	9.06%	8.25%	7.15%	5.56%
CAPITAL ONE AUTO FINANCE	649	**	649	331919	7.01%	17.17%	16.18%	15.17%	13.78%	12.42%	10.98%	9.61%	8.30%	6.29%	4.70%
WELLS FARGO DEALER SERVICES	693	**	693	158237	3.34%	11.47%	10.94%	10.18%	9.44%	8.66%	7.93%	7.22%	6.52%	5.64%	4.80%
CREDIT ACCEPTANCE CORP	560	**	560	142401	3.01%	22.19%	22.08%	21.96%	21.90%	21.75%	21.57%	21.01%	20.96%	19.42%	17.63%
CARMAX AUTO FINANCE	680	**	680	135631	2.86%	13.35%	12.32%	11.69%	11.00%	10.21%	9.49%	8.64%	7.72%	6.27%	4.37%
SANTANDER CONSUMER FINANCE	585	**	585	135079	2.85%	21.24%	20.33%	19.68%	19.71%	19.30%	18.81%	17.55%	16.93%	14.75%	10.75%

LP Score	Depth	Loan to Value										
		0-85	86-90	91-95	96-100	101-105	106-110	111-115	116-120	121-125	126-130	131-135
750+	NORMAL	6.3%	6.3%	6.3%	6.3%	6.4%	6.7%	7.0%	7.3%	7.8%	8.4%	9.1%
700-749	NORMAL	6.7%	6.7%	6.7%	6.7%	6.8%	7.1%	7.4%	7.8%	8.3%	8.9%	9.6%
680-699	NORMAL	6.9%	6.9%	6.9%	7.1%	7.4%	7.8%	8.3%	8.7%	9.4%	10.0%	10.8%
660-679	NORMAL	7.5%	7.5%	7.8%	8.1%	8.5%	9.0%	9.4%	9.9%	10.4%	11.0%	
640-659	NORMAL	7.6%	7.8%	8.1%	8.6%	9.1%	9.6%	10.2%	10.7%	11.3%	11.9%	
620-639	NORMAL	8.3%	8.6%	9.0%	9.6%	10.2%	10.9%	11.5%	12.0%	12.6%	13.2%	
600-619	NORMAL	8.6%	8.8%	9.4%	10.1%	10.8%	11.5%	12.2%	12.9%	13.6%		
580-599	NORMAL	9.1%	9.5%	10.1%	10.9%	11.7%	12.6%	13.4%	14.1%	14.8%		
560-579	NORMAL	9.6%	10.1%	10.9%	11.9%	12.9%	14.0%	15.0%				



Lending Yield vs. Investments

Credit Union Benefits

- Family Loyalty
- Local, serve communities
- By serving the near and non prime consumer, CU's earn expanded business
- More Applications and Stronger Ties with Dealers
- Sale of More Ancillaries (for direct lending)



Over 400+ Institutions In The US



PORTFOLIO STATS

- Over 250,000 loans insured
- Over \$5 billion in insured loans
- Auto FICO scores 560 and higher eligible
- Loan-to-Value up to 145%
- Extended Terms up to 72 months
- Consistent customer ROA of over 2.25%



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Say **YES** to more automotive loans.

Thank You.

Questions?

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