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WEB EXCLUSIVES

A Case for Risk-Based Loan Pricing

By Ken Williams

Technology is driving the migration to tiered pricing (basing interest rates on credit risk) to smaller institutions.
This article looks at key issues tied to the implementation and management of tiering rates for risk-based pricing:

- **Measuring** and price management of credit risk;
- **Using** credit scoring to manage credit risk;
- **Applying** tiering concepts to the pricing model; and
- **Implementing** tiered pricing--four critical steps.

Measuring and price management of credit risk
Credit risk, historically, has been managed through setting different prices for different loan types so the collateral's value dictates the risk premium. Real estate loans get the best price, while unsecured loans have a high-risk premium.
The difficulty occurs when attempting to set a risk premium for individual creditworthiness within the same loan type, such as an auto loan. In the past, financial institutions had one price for auto loans, and borrowers either got the loan or they didn't.
The single-price approach has fallen out of favor as lenders realized they were leaving many acceptable borrowers out in the cold. Sometimes the subtlest form of discrimination is charging everyone the same price. The answer is to set the price based on the risk level for each borrower.

Using credit scoring to manage credit risk
Credit unions can use an individual’s credit score to calculate the risk premium that may be added to the rate. Credit scores indicate the likelihood a particular borrower will default. The odds then are converted to a loss-percentage range and used to calculate the additional amount to add to the rate.
Figure I shows this relationship for credit scores from 560 to more than 760. The rate increases to offset the increase in loss risk as the credit score and credit quality declines.

Applying tiering concepts to the pricing model
Below is a loan pricing model for a typical consumer loan where the market loan rate is 7% and the target losses are 0.5%.
The risk premium is calculated by the credit score’s loss projection and applied to the loan pricing model as shown here:

Figure I

Credit Score	760-800+	710-759	660-709	610-659	560-609
Base Loan Rate	7%	7%	7%	7%	7%
Risk premium	*(0.20)%*	*0.1%*	*0.7%*	*1.6%*	*2.6%*
Rate to Borrower	6.8%	7.1%	7.7%	8.6%	9.6%
Cost of Funds	(4%)	(4%)	(4%)	(4%)	(4%)
Oper/OH Exp	(2%)	(2%)	(2%)	(2%)	(2%)
Loan Loss	(0.3%)	(0.6%)	(1.2%)	(2.1%)	(3.1%)
Target Net Return	0.50%	0.50%	0.50%	0.50%	0.50%

The risk premium is the credit score's predicted loss above or below the 0.50% target loss rate. It's then added to the market loan rate of 7%. Many lenders also add a premium for increased collection expense. By adjusting the risk premium to cover the higher losses, lenders maintain the target net return. Note that the market rate of 7% actually goes down in the highest-quality score group.

Implementing tiered pricing--four critical steps

Implementing a logical tiered-pricing process is possible using even validated generic scores from credit reporting agencies. There are four critical steps in auditing an existing program or implementing a new one:

1. Become familiar with National Credit Union Administration **Letter No. 174** and **Letter No. 99-CU-05.** Do this even if your credit union has a state charter. State examiners also look to these letters for guidance.

2. Upgrade your credit scoring to new models. Credit scoring is a technology that evolves over time. Some of the credit reporting agencies' classic models are based on data from 1995 to 1997. The greater the precision the greater the reliability, resulting in more approvals, lower losses, and lower processing costs. It's worth the effort to upgrade to the newer models.

3. Validate regularly the score set's predicted loss to your own results by point score. Examiners require validations, and credit reporting companies can assist you with the validation process.

4. Educate staff and members. Tiered pricing isn't a negative process resulting in higher rates. It's a more equitable approach allowing more members to become borrowers. Staff, not members, tend to offer the greatest resistance to tiered pricing.

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