**Business Impact**
Credit line optimization can increase profitability by tens of millions of dollars each year or help maintain current profitability levels with much less associated risk.

**Challenges**
- **Inefficient processes.** Traditional techniques for determining changes to credit lines are time-consuming, inconsistent and lack transparency and repeatability.
- **Inability to balance risk and reward.** Too often, efforts to boost profitability end up unnecessarily increasing risk levels.
- **Limited view of portfolio.** Without a holistic view of all drivers across the portfolio, it’s hard to know what the tradeoffs are among different measures, such as net present value or net credit loss.
- **“One size fits all” policies.** The absence of fact-based decision making in credit line alteration policies means that decisions to raise or lower credit lines are too often made arbitrarily.

**YOUR GOAL:** Increase profitability, lower risk

Effective credit portfolio management is of the utmost importance for successful short-term management of credit risk, and it takes on even greater importance when credit and financial markets are in flux. Credit markets have tightened severely in response to the financial crisis, and some analysts predict that things will get worse before they get better. The knee-jerk reaction by many credit card issuers has been to rein in credit lines in an attempt to stave off huge losses or meet stringent regulatory requirements for having a certain amount of cash in reserve in proportion to how much credit they have extended. Unfortunately, this reaction may have the unintended effect of hindering profitability.

Because increasing – or decreasing – a credit line affects both profit and loss probabilities inversely, it’s important to carefully balance the risk/reward equation to get the best possible outcomes. The bottom line is, companies can drive profitability through the acquisition of new customers and the ongoing management of existing customer relationships. In other words, you should extend credit to those customers who are able to pay – by setting the right credit amount and terms at account origination and, on revolving lines of credit, determining the right credit-line adjustments to profitably grow and retain existing customers.

**OUR APPROACH**

Managing the credit line process is a large, complex endeavor. That means treating the determination of customer credit lines as a highly scientific process, not one based on “one size fits all” assumptions. SAS approaches the problem by delivering software and services to help you:

- **Achieve the full potential of every account relationship** with a predictive modeling process that lets you build multiple models for each credit line.
- **Determine the right risk/reward tradeoff for your business** by using true mathematical optimization to compare alternative scenarios simultaneously and evaluate the impact of constraints, such as loss ratios and overall risk exposure.
- **Gain insight into the opportunity costs associated with different decisions before committing to a final action** by using scenario, sensitivity and feasibility analyses to see how a change in one metric may affect another and to determine the impact various constraints may have on your overall objectives.
- **Deploy more effective credit line strategies throughout your organization** by easily integrating your optimization processes with your operational systems to put your strategic decisions into practice.
- **Create, view and share optimization reports** with a sophisticated, yet easy-to-use, reporting and graphics environment that provides multiple views of each project.

With SAS®, you can perfect your credit line management strategies to maximize overall profitability across your entire customer portfolio while simultaneously reducing bad debt.
THE SAS® DIFFERENCE: Portfolio optimization at the individual customer level

With more than three decades of experience in optimization, SAS offers a proven combination of technology, methodology and industry expertise that is unmatched by any other vendor. Only SAS offers:

• **Advanced predictive modeling capabilities** for predicting net present value, net credit loss, revenue, fees, line utilization, balance and more.

• **A patented, scalable optimization algorithm** designed to conduct large-scale optimization routines in just minutes, not days.

• **The ability to solve the holistic credit line problem** at the individual customer level.

As an integrated part of the SAS Business Analytics Framework, which includes industry-leading data integration, analytics and reporting technologies, our optimization solution lets you take advantage of existing technology investments, as well as expand the solution over time as your needs and objectives change.

CASE STUDY: A large financial services institution

**Situation**

The card issuer was looking for ways to reduce overall risk exposure while increasing (or decreasing) line amounts. As a starting point, the company implemented a series of models – most notably for net present value and net credit loss – to predict a variety of metrics for each credit line increase. Because customers respond in different ways to credit line increases or reductions, it became important that the right credit line amount be picked for each individual customer in order to increase profits without the risk of that customer defaulting.

**Solution**

SAS delivered a credit line optimization solution that enabled the company to solve their holistic credit line problem at the individual customer level by:

• Combining their business constraints with their models.

• Simultaneously analyzing each individual customer with an optimization algorithm.

**Result**

As a result of this new methodology, the SAS solution helped the company save tens of millions of dollars per year.

[SAS Facts]

- SAS has been in business since 1976 and today has customers at more than 45,000 sites worldwide.
- SAS customers made up 91 of the top 100 companies on the 2008 FORTUNE Global 500®.
- CRM magazine has named SAS the leading provider of CRM analytics for four consecutive years.

Learn more about SAS software and services at: www.sas.com