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White Paper

Credit scores don't tell the entire story for car buyers

A new approach to the 3 C's offers a deeper, more accurate view of risk for subprime auto lending

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January 2013

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About Equifax

Equifax is a global leader in consumer and commercial information solutions, providing businesses of all sizes and consumers with information they can trust. We organize and assimilate data on more than 500 million consumers and 81 million businesses worldwide, and use advanced analytics and proprietary technology to create and deliver customized insights that enrich both the performance of businesses and the lives of consumers. For more information, please visit Equifax.com.

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Introduction

After being bombarded in recent years with a steady stream of bulletins on bank failures, declining home prices and elevated default rates, the economy is finally taking a turn a turn for the better and showing clear signs of improvement. For consumers and businesses alike, a return to spending can't come fast enough.

What does this mean for subprime auto lending?

Let's observe present lending conditions. After declining from 2007 through 2009, the number of new auto loans originated in 2012 rebounded significantly and is showing impressive growth over recession lows. Likewise, the average loan amount in 2012 stands at a six-year high. Overall, there has been an impressive 49 percent increase in new auto finance company loan originations over recession lows.

Mirroring the broader trend, subprime auto loans—defined by origination risk scores under 640—are also increasing in volume and value and are climbing to pre-recession amounts (Figure 1), but at a slower rate.

As the economy continues to thaw after the recessionary spending freeze, auto lenders are revising their marketing and risk assessment strategies, looking for ways to securely tap into this expanding market opportunity. That means they must find the fastest path to reaching the right consumers, at the right time, with the right offer—before their competition.

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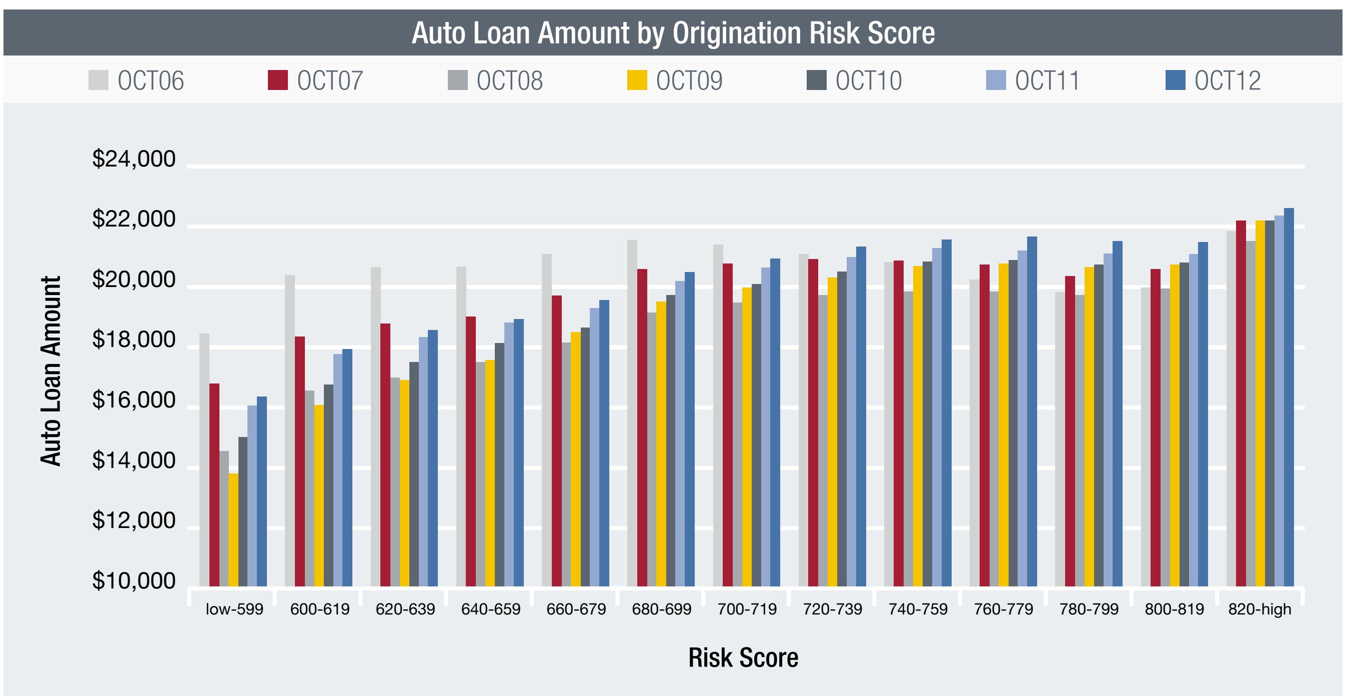

Figure 1*: Auto Loan Amount by Origination Score.*

Could improving the accuracy of bad rate assessment in subprime score ranges help?

Many lenders are questioning credit policy, and returning to such traditional lending guidelines as the "Three Cs" – credit, capacity and collateral. It is generally accepted that problems in any of these areas can result in loan default, but for very different reasons.

Auto lenders have historically embraced the three Cs as a risk measurement tool through traditional credit scoring, DTI ratios to address capacity, and vehicle value to address collateral. However, during the peak of the recession these measures didn't prevent a rise in delinquencies, so a reassessment of the approach is warranted to ensure underlying risk patterns are addressed as effectively as possible.

New Approaches Offer Hope for Both Lenders and Consumers

All consumers are not behaving as their credit scores might indicate, especially when economic setbacks like job loss impair credit. We've seen increasing rates of borrowers with good credit scores default on loans, but individuals with lower scores are also making payments to improve their credit outlook. This means:

- Consumers with low credit scores are desperate for credit, but have few options.
- With their current risk policies, lenders are struggling to select the best consumers.
- Risk scores alone are not adequately addressing all dimensions of consumer payment behavior.

To address capacity, Equifax began to explore the relationship between debt and income during the mortgage meltdown, spurred by the observation that the traditional DTI capacity measure wasn't as effective for industries like auto and bankcards. Since 2010, these concepts on capacity have resonated across the industry, but the outcome in subprime auto lending is particularly compelling.

Additionally, for credit payment behavior, Equifax has found that leveraging alternative payment data from sources such as mobile phone, landline, and pay TV accounts can provide insight and a more accurate assessment of credit payment risk for installment accounts. Leveraging this alternative data additionally provides payment insight into 25million+ previously undetected consumers on the credit file alone. A new score incorporating these data, called Insight Score for Credit, provides even greater accuracy of credit payment behavior.

Understanding Capacity

Figure 2 illustrates consumer risk behavior when evaluating a dual risk strategy that includes credit risk score and traditional DTI ratio for subprime auto lending (risk score of 619 and lower). Each chart represents the performance for commonly grouped auto lending types – Captive, Banks, Credit Unions and Other.

As the risk score decreases along the horizontal axis, the bad rate on the vertical axis increases as expected. However, the way in which a DTI ratio interacts within risk score bands actually shows a declining effect. That is, when the DTI increases, the consumer risk actually decreases. So, not only is the DTI ratio not effective, but it can also be detrimental to consumer capacity measurement.

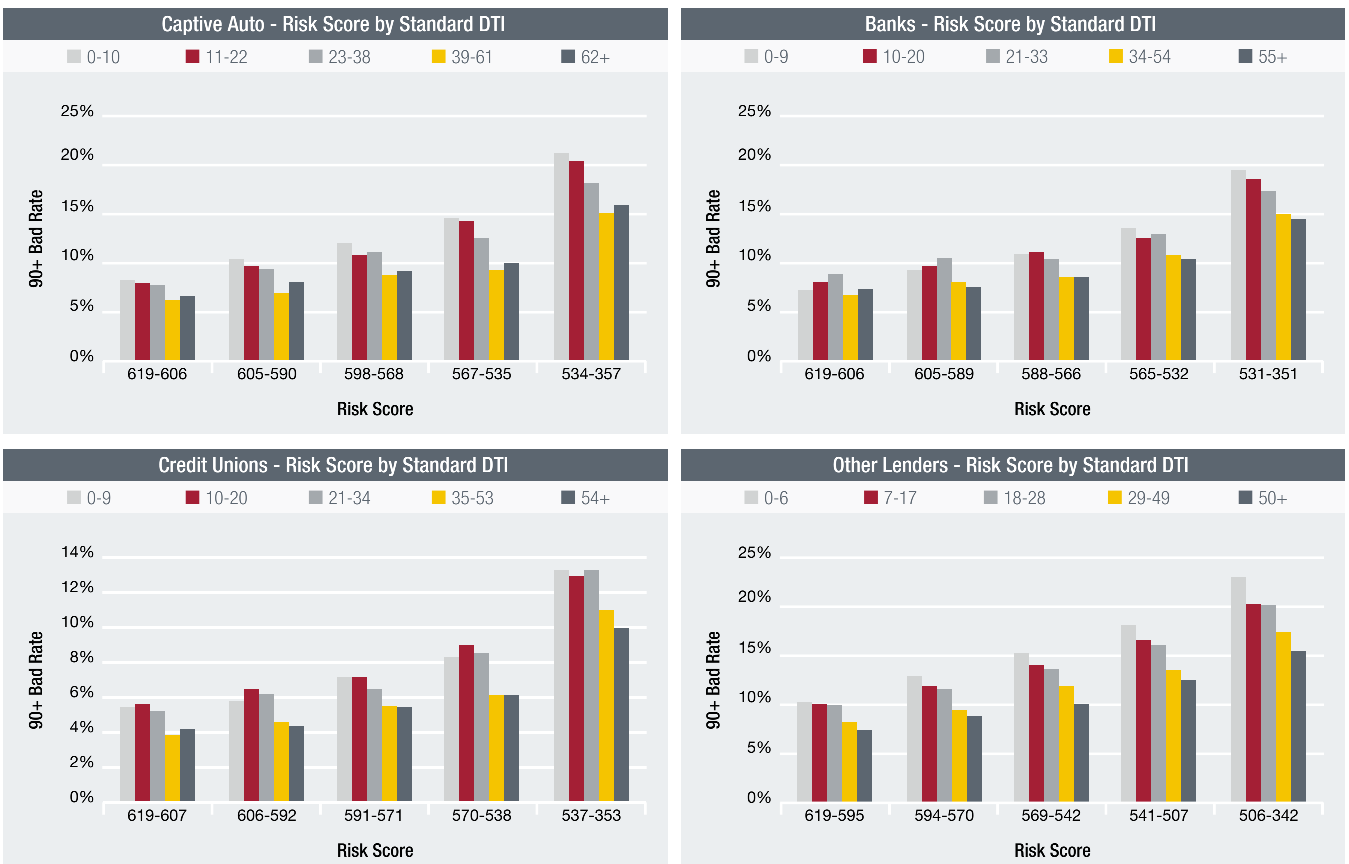

***Figure 2**: Standard DTI performance by Captive, Bank, Credit Union and Other automotive lending.*

These initial observations led to an extensive Equifax study of the relationship between debt and income, as well as how best to formulate DTI to address capacity as a relevant indicator of payment risk. The study revealed two fundamental principles that lenders should consider:

- A simple ratio of total debt payments to income isn’t always effective, and certainly not an optimal way to combine debt and income.

- Different lending products warrant a different DTI formula to predict risk. This means a formula for bankcards won’t work for auto lending. So, an installment specific formula is needed to combine debt components with income to effectively represent the significance of each component for paying off an auto loan.

A formulation that considers attributes specific to a particular loan portfolio simply provides a more refined measure of capacity. The outcome of the study was a series of industry specific DTI formulas called Enhanced DTI.

In Figure 3, we see a very strong correlation between Enhanced DTI and bad rate for all lending channels. That is, as debt position worsens for a consumer, the bad rate increases. This illustrates the effectiveness of a formula that is attuned to assess capacity for an auto lending decision.

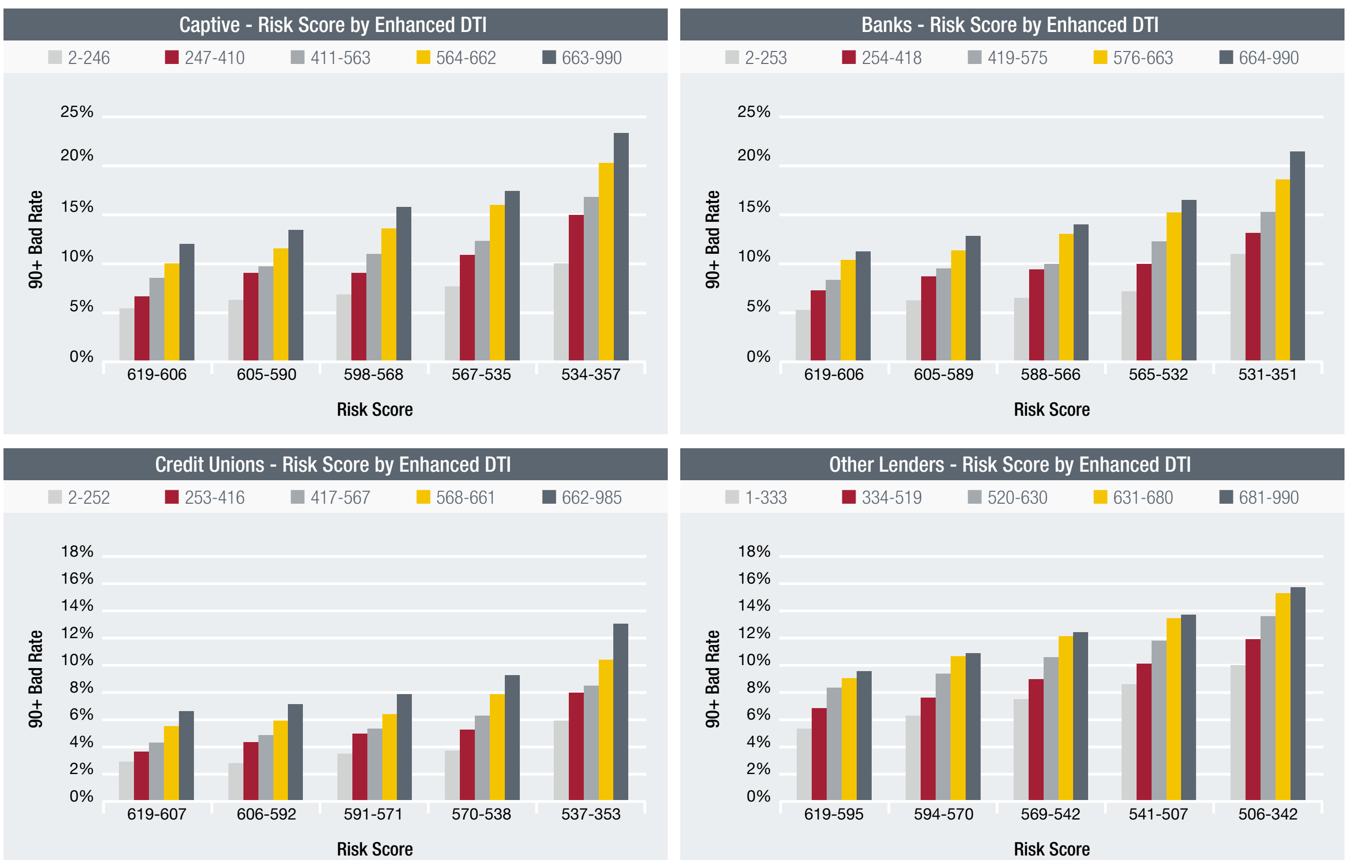

***Figure 3**: Effectiveness of Enhanced DTI for subprime auto lending.*

Can Alternative Data Give You Unique Consumer Insights?

In Figure 4, the Insight Score for Credit (ISC) illustrates the effectiveness of leveraging additional alternative payment data to improve the forecast of credit risk within an auto lending decision in risk bands previously viewed as homogenous.

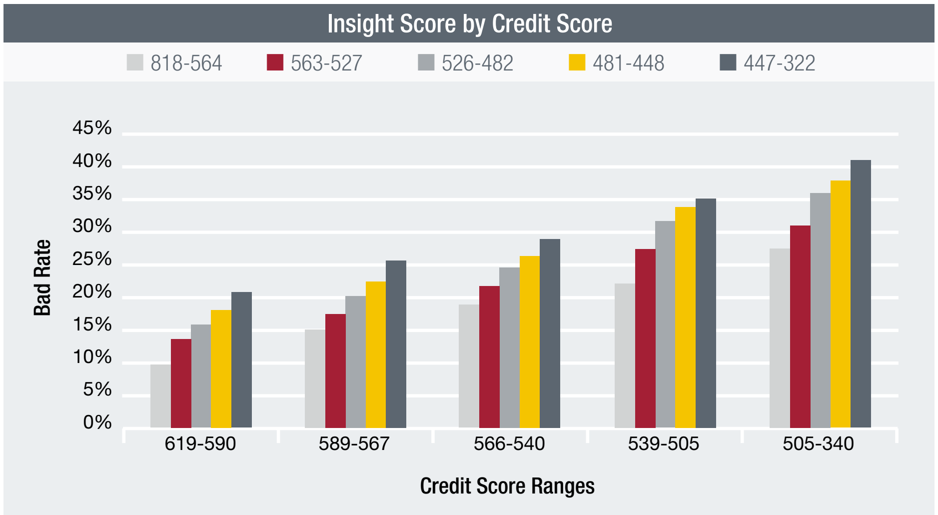

Figure 4: *Insight Score for Credit in subprime auto lending.*

In particular, ISC applied to sub-prime auto lending delivers unique insights for those with little, no or recovering credit. The average age of US vehicles on the road is more than 11 years. Similarly, Polk is predicting vehicle registrations in the U.S. to rise 6.6 percent over 2012 levels to 15.3 million vehicles. In order to capitalize on any upswing in auto sales, lenders must be ready to quickly and efficiently lend deeper without increased risk and qualify in-the-market consumers before competitors do.

Summary

Through enhancing the 3 C's, the benefits to subprime auto lenders are many, including:

- More competitive pricing as a result of more accurate risk assessment.
- Ability to further mine subprime risk bands — without sacrificing credit quality — by balancing traditional credit risk with affordability.
- A more competitive risk strategy that enables the servicing of consumers that other lenders reject.
- Comprehensive, more accurate risk management that more precisely measures capacity, at the portfolio level, for all loans.
- Less manual intervention via automated assessment.

A DTI formula refined for auto lending provides a more accurate capacity measure.

Subprime auto lenders can confidently combine the traditional risk approach with more accurate capacity measures. They need only adjust their view of consumer capacity. With Enhanced DTI and Insight Score for Credit, prepared lenders can lead the way to economic recovery and enhanced consumer loyalty by extending credit to consumers who are able to pay.

About the Authors

Tom Aliff, Vice President, U.S. Analytics

As Vice President of Modeling and Analytics, Tom leads the U.S. Consumer analytical team. This team is responsible for designing and fulfilling modeling and other analytical solutions from marketing through acquisition, customer management, collections, insurance, income and fraud. Tom joined Equifax in July of 2009 and brings several years of financial industry experience in leading statistical modeling engagements, analysis and consultation. Tom holds a Master of Science in Applied Statistics from Purdue University, and a Bachelor of Science degree in Mathematics with a concentration in Statistics, also from Purdue University.

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As Senior Vice President of Analytics, Martin leads the analytical initiatives for Equifax internationally. His analytics teams are responsible for designing and fulfilling modeling and other analytical solutions from marketing to acquisition, customer management, collections and fraud. Industries span telecommunications, financial services, retail and insurance. Martin is also responsible for the analytical R&D unit, where new products are designed, developed and maintained, and research is conducted on data, statistical techniques and solution potential. Under Martin's leadership, Equifax has developed industry leading solutions, including innovative patent-pending new statistical techniques. Martin has master's degrees in Statistics and Economics from the University of New York, where he also completed his PhD studies. He earned his Bachelor's degree in Mathematics from the University of Wales.

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