

VantageScore Solutions 2011 Annual Validation

Affirms Model's Predictive Power for the Auto Finance Industry

February 2012

OVERVIEW

Among the three major consumer credit industries (auto, bank card and mortgage), the auto finance market withstood the headwinds associated with the recent recession and credit crunch most resiliently. Unlike the mortgage market, there remains a secondary market for securitized auto loans. Even the captive lenders, who were hit especially hard, are demonstrating impressive performance.

A contributing factor is that consumers were fearful that missing an auto loan payment would jeopardize their ability to work, leaving many consumers to conclude that missing a mortgage payment was more palatable. Supporting this trend was data VantageScore Solutions compiled showing a shift in payment hierarchy over the past few years, though the newest incoming data is suggesting a return to a more normalized environment.

Regardless, the automobile lending industry didn't experience a major disruption in the same way that the mortgage and credit card industries did, but there are still pockets of exposure for both banks and captive lenders.

For example, VantageScore Solutions examined default rates in regions of the country with varying degrees of unemployment and home price depreciation. Our analyses found that regions of the country that were severely impacted by both of those factors demonstrated a 200 percent increase in default rates over other regions. That is intuitive perhaps, but interestingly, the regions now experiencing the highest default rates were among the safest from a risk perspective just five years ago.

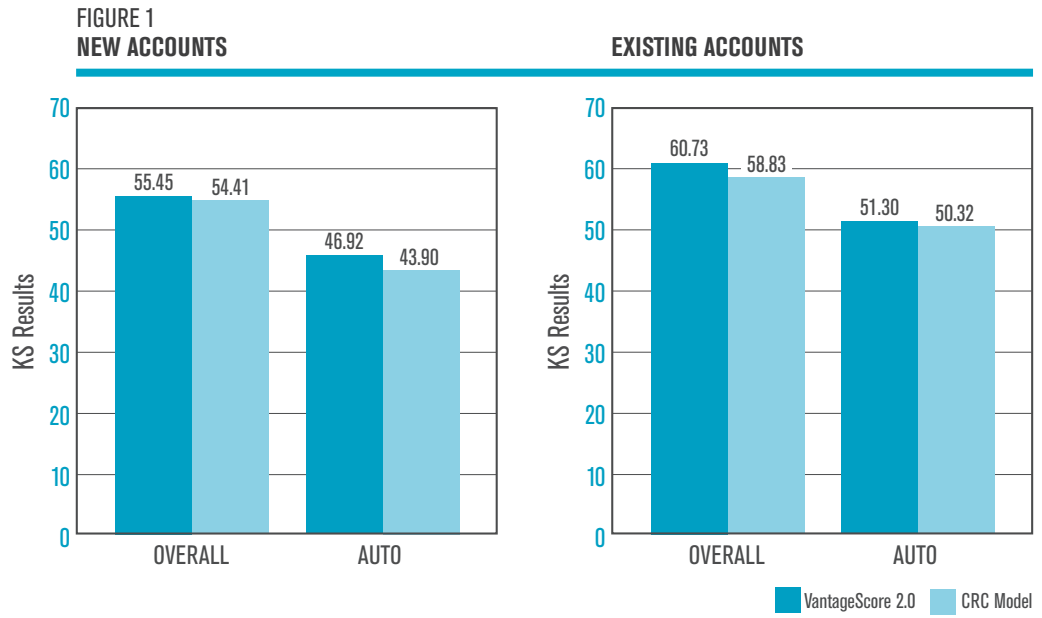
With such flip-flopping of risk and payment patterns, it's critical to utilize risk management tools that are capable of performing despite such an environment. Moreover, the auto lending industry is targeting sub-prime borrowers for growth with lower rates, which puts added pressure on a portfolio's performance. A miscalculation or shift in trends can have a significant impact.

Knowing this, and in order to provide lenders with added confidence, VantageScore® 2.0—the model's second version—was recently validated to measure predictiveness in a variety of contexts and environments.

This paper provides an overview of these results and a more concentrated examination of VantageScore 2.0's performance, specifically within the automobile lending industry vertical. VantageScore 2.0 was tested against generic credit score models provided by the three credit reporting companies (CRCs). Results presented in this paper are based on how VantageScore 2.0 compared against a single benchmark model; however, results were similar across all three.

PREDICTIVE PERFORMANCE

VantageScore 2.0's KS statistics are provided below on both new account origination and existing account management on an overall industry basis and specifically for the auto industry. VantageScore 2.0 continues to outperform the benchmark model, and notably is 7 percent more accurate in auto originations as seen in Figure 1.¹



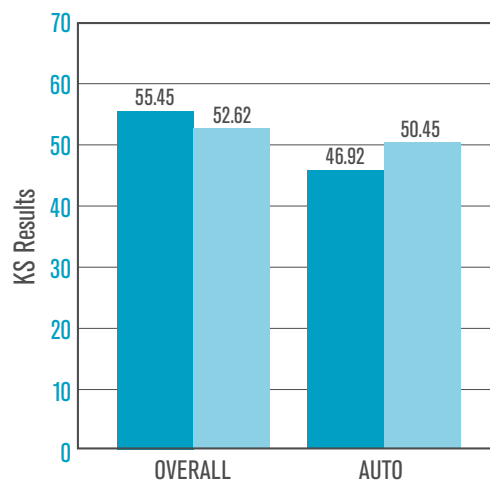
¹ VantageScore 2.0 outperformed all CRC benchmark scores. For percentage comparisons, the median KS result from the benchmark scores is used.

SCORE STABILITY

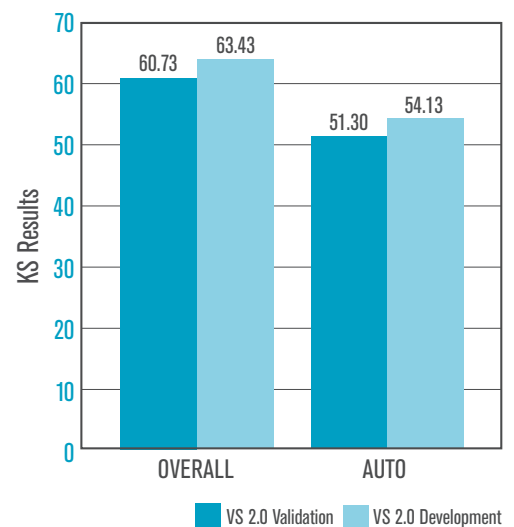
VantageScore 2.0 was built on a performance sample of 45 million consumer credit files over multiple time frames taking into account the mortgage meltdown and the great recession to capture how these events have changed consumer behavior. The model accurately predicts how consumers are changing their behavior based on these events, resulting in continued strong predictive performance, shown in Figure 2.

The volume of subprime originations in the auto finance industry is increasing. Offsetting this is an overall improvement in default rates, thus there is little likelihood of a material impact to a portfolio's performance.

**FIGURE 2
NEW ACCOUNTS**



EXISTING ACCOUNTS



CONSUMER SCORE CONSISTENCY

VantageScore 2.0 uniquely uses a set of leveled characteristics across the three CRCs. As a result of these leveled characteristics, the identical algorithm is used to calculate a credit score at each CRC. The benefit of this single-model deployment is that both lenders and consumers receive a more consistent risk assessment when obtaining scores from multiple CRCs. As the chart in Figure 3 below demonstrates, over 80% of consumers receive scores within 40 points from across multiple CRCs, which translates into very consistent risk assessment.

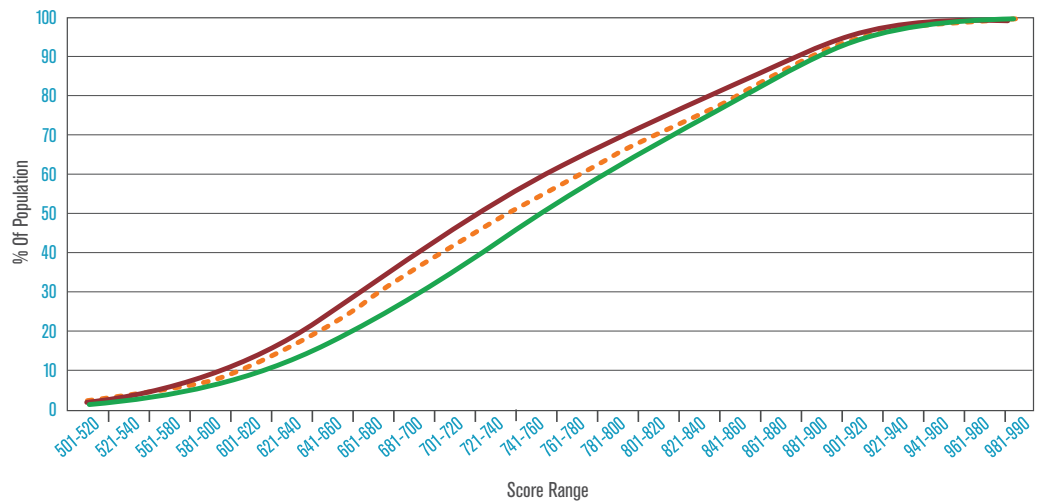
FIGURE 3

	CRC1 – CRC2	CRC2 – CRC3	CRC1 – CRC3
<20 Points	57.50%	61.90%	63.20%
<40 Points	80.10%	83.00%	84.50%

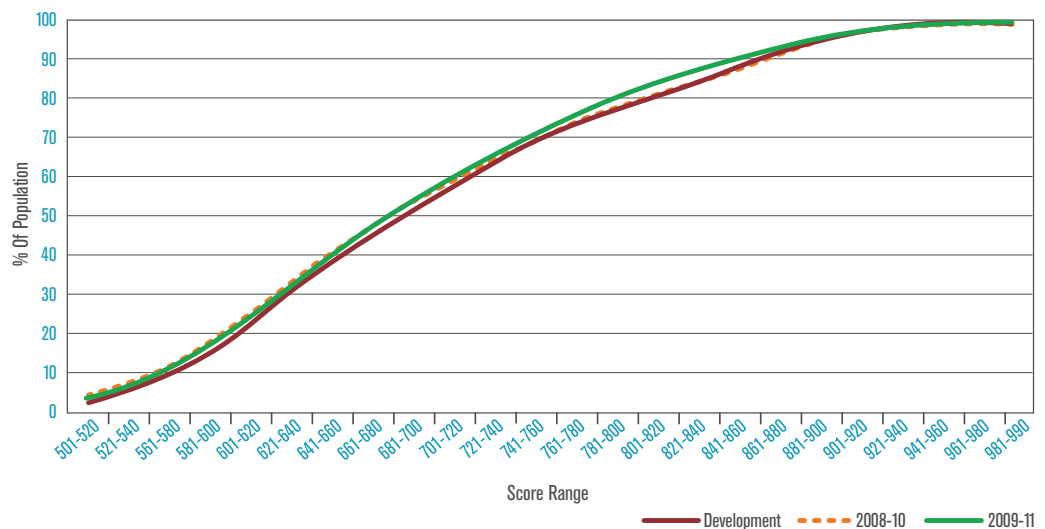
CONSUMER SCORE DISTRIBUTION

Scores for consumers originating new auto loans have trended higher over the last several validation periods.

FIGURE 4
VANTAGESCORE 2.0 SCORE DISTRIBUTION: AUTO NEW ACCOUNTS



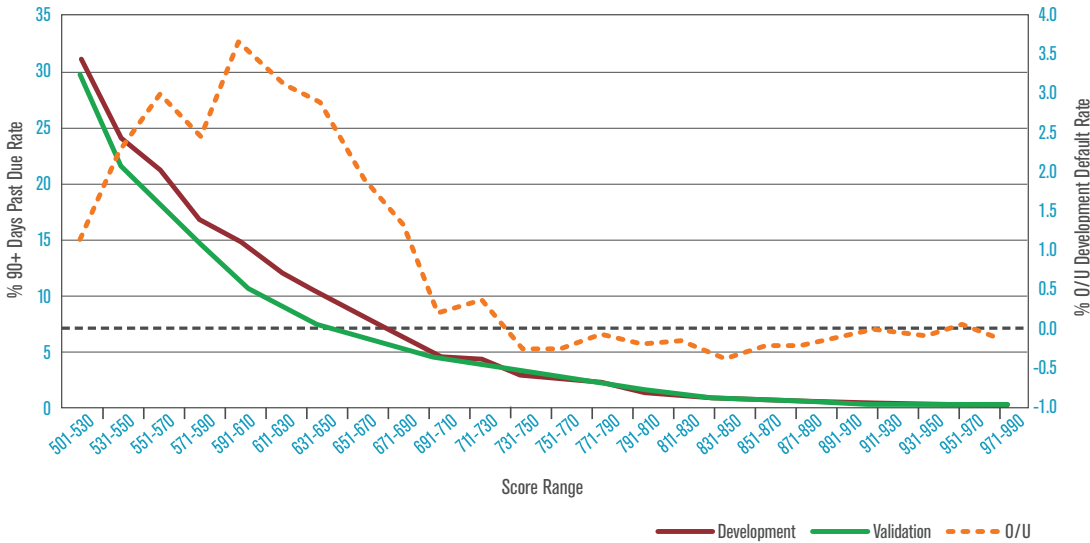
VANTAGESCORE 2.0 SCORE DISTRIBUTION: AUTO EXISTING ACCOUNTS



By contrast, risk distribution for existing account management in the auto lending sector has remained largely consistent for the last several years. As a result strategy score cut-offs continue to reflect the same degree of risk, reducing the need for ongoing score to risk realignment.

DRILL DOWN

FIGURE 5



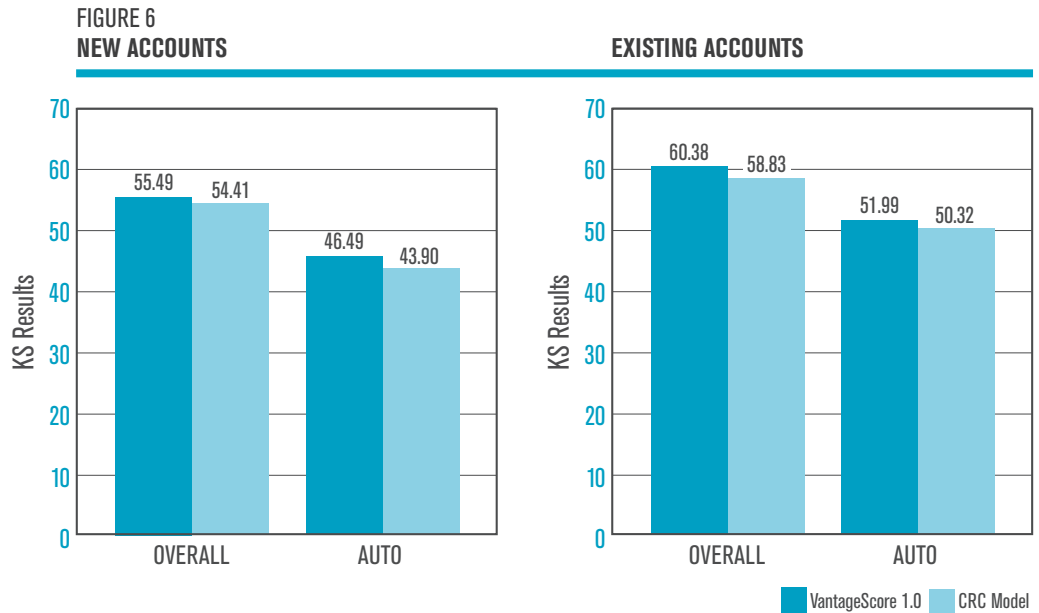
A closer examination of VantageScore 2.0’s performance in the auto lending sector reveals that performance was impacted by a contraction of risk in the non-prime tier (less than 700) of the credit spectrum.

VERSION 1.0

A validation was also performed for VantageScore 1.0 to ensure the earlier version remains predictive. The original VantageScore model was developed using data from the 2003 – 2005 timeframe and validation results demonstrate continued predictiveness.

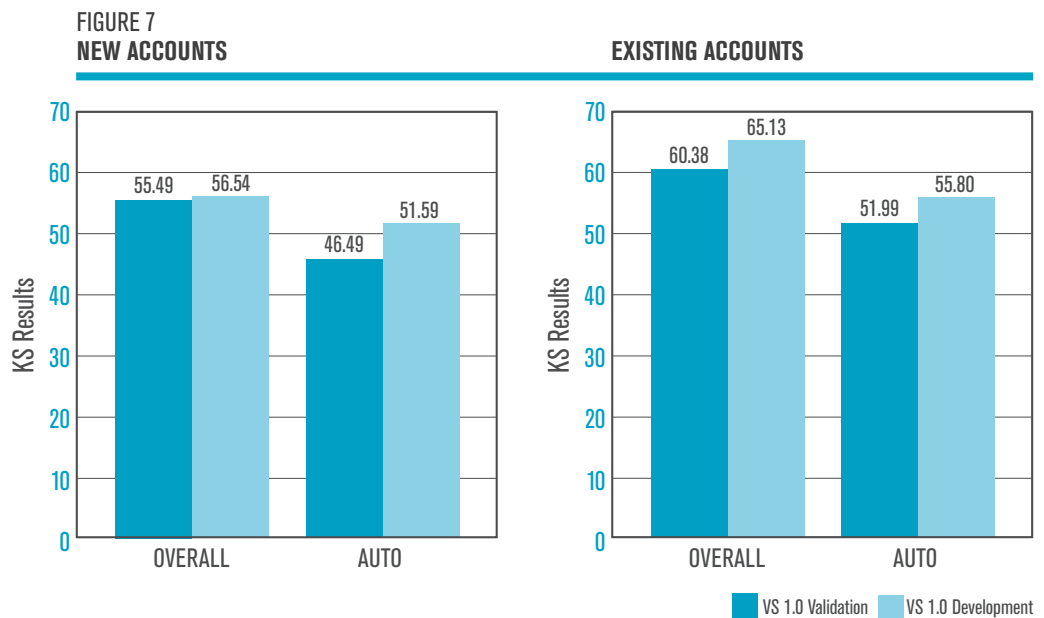
SCORE PREDICTIVE PERFORMANCE

A highly effective measurement for model validation is a comparison of KS results from models developed under the same timeframe. Figure 6 compares VantageScore 1.0 to a benchmark generic credit score model developed by one of the CRCs. Results show that KS values are higher overall and relative to the auto lending sector.



SCORE STABILITY

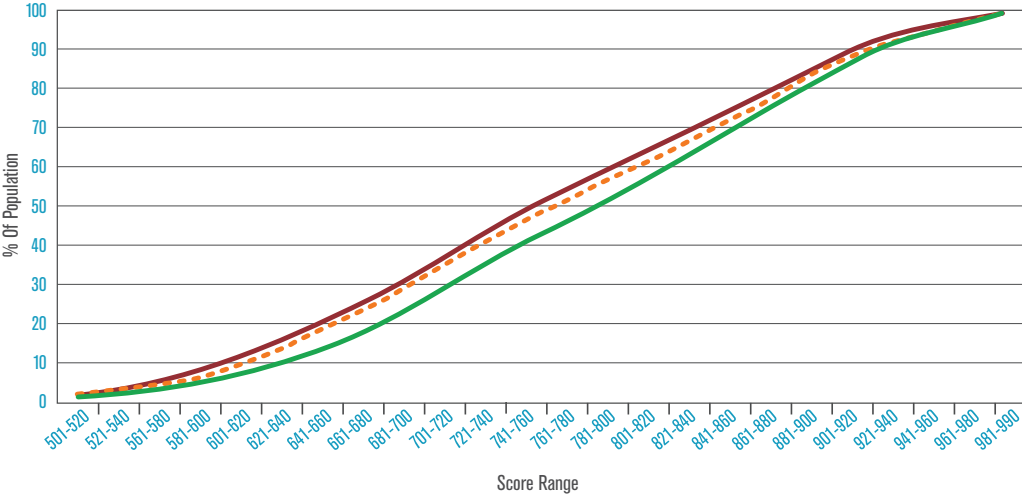
While it's natural for all models to expect some level of deterioration over time, VantageScore 1.0 continues to be an effective risk management tool. Figure 7 below compares VantageScore 1.0's performance at development versus its 2011 validation.



CONSUMER SCORE DISTRIBUTION

Similar to VantageScore 2.0, score distribution for consumers originating new auto loans have trended higher, and risk distribution for existing account management in the auto lending sector has remained consistent.

FIGURE 8
VANTAGESCORE 1.0 SCORE DISTRIBUTION: AUTO NEW ACCOUNTS



VANTAGESCORE 1.0 SCORE DISTRIBUTION: AUTO EXISTING ACCOUNTS



CONCLUSION

As the auto lending sector continues its impressive gains and competitive offerings, over-extension will enter into the picture as a concern. Housing and unemployment will continue to impact default levels; combined, these factors could rapidly alter the landscape for risk managers.

Using accurate risk assessment tools such as VantageScore 2.0 can offer lenders added confidence, knowing that the model's predictive powers will hold up under varied scenarios. Whether the auto lending sector continues down its current path or is impacted by volatility, VantageScore 2.0 can be an important tool for an increasingly competitive market.