











# VantageScore<sup>SM</sup> addresses deficiencies in traditional scores in the subprime consumer sector

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## Overview

Over the past six years, the U.S. credit market has experienced a large increase in consumer debt, growing from \$6.9 trillion to \$12.8 trillion. This dramatic rise has been driven largely by mortgage and home equity financing, which grew by \$4.9 trillion dollars over the same period, an increase of more than 100 percent from year-end 2000 to year-end 2006.

During this time, credit grantors have sought innovative ways to continue to grow market share — in large part by attracting and acquiring a broader array of consumers. The strong growth in mortgage lending within the subprime consumer sector illustrates this point. From the first quarter of 2003 to the fourth quarter of 2006, the subprime sector realized a 60 percent increase in new mortgage originations.

As subprime lending has grown more prevalent, it has become clear that new scoring tools are required to create a more granular view of a creditworthy and viable population. The necessity for credit risk scores that more accurately predict risk across the consumer base using advanced segmentation techniques has become increasingly evident as the lending market slows and delinquencies increase, specifically on debt associated with consumers in the subprime risk sector. These consumers are classified as those within the lowest-scoring intervals — typically the bottom 20 percent scored —using the Experian Risk Score .

Historical methodologies employed in traditional credit risk score development have characteristically impacted the subprime consumer sector in three specific ways:

- **Scoreability:** Consumers with very little credit history or dormant credit activity were excluded from the “scoreable” population. This function of the traditional credit risk score precluded lenders from visibility to the entire subprime population while increasing the size of a consumer segment that had been limited in its access to the credit markets.

- **Accurate risk assessment:** Traditional credit risk model development methodologies typically classified consumers into a subprime risk segment using historical delinquent and derogatory payment behaviors as a key indicator of future payment behaviors, thereby eliminating the ability to separate relatively low-risk subprime candidates from the relatively high-risk subprime candidates (i.e., consumers who are most likely to drive delinquency and bad debt in the portfolio).

- **True score representation:** There is a portion of subprime credit seekers who are manipulating, or “gaming,” the traditional credit risk model methodologies for access to credit otherwise unavailable to them. Traditional credit risk models do not suppress authorized user tradelines (i.e., a consumer added to the account of a cardholder as a user). A subset of low-score or no-score consumers are using this loophole to artificially present themselves to credit grantors as prime prospects. This group of consumers is gaining access to increased credit extension amounts and favorable rates when, in fact, their risk score without these authorized user trades would suggest a higher-risk profile. This aspect of traditional credit risk scores is creating a cottage industry on the Internet and an opportunity for “would-be” credit gamers, increasing the risk in the lending portfolios of financial institutions. While this practice is not illegal, its manipulative and exploitive undertones are concerning and may be best categorized as abuse that borderlines fraudulent behavior.

The development and launch of VantageScore<sup>SM</sup> in March 2006 provided the opportunity to address the challenges posed by historical credit risk score methodologies. This paper details the findings of a recent study by Experian<sup>®</sup> that examined the impact of VantageScore in the subprime mortgage consumer segment in each of these three areas. Specifically, it demonstrates how VantageScore can expand the universe of

<sup>1</sup>According to the Federal Reserve Bureau of Statistics Z.1 report released March 8, 2007

<sup>2</sup>Data for comparison with VantageScore<sup>SM</sup> was derived from or is representative of Experian's National Risk Model. The terms “Experian Risk Score,” “traditional credit risk score” or “traditional credit risk model” are used to refer to this Experian proprietary model and data representative of its performance.





classified as “good” subprime consumers over the traditional risk model. This new scoring tool provides lenders with an opportunity for fine-tuning a policy that may have previously treated an entire portion of the portfolio in the same manner but now can be segmented for different risk-management practices.

The following tables highlight the clumping and inconsistent rank-ordering of delinquent or “bad” accounts associated with subprime consumers using a traditional credit risk score versus the relatively monotonic distribution of

bad accounts with VantageScore. The stronger rank-ordering of accounts is attributed to the segmentation techniques used in the development of VantageScore and demonstrates the intrinsic benefits of changing the way this consumer segment is scored and assessed for risk. It is especially interesting to note that approximately 20 percent of those consumers originally classified as subprime using Experian’s traditionally developed credit risk score now are classified into lower-risk categories using VantageScore.

### Subprime population percentages and bad rates

#### Experian Risk Score Kolmogorov-Smirnov statistic (KS) = 11.2 Subprime consumers

Subprime

Percent total	Percent bad	Interval bad rate	Cumulative bad rate
10.0%	9.9%	9.8%	9.8%
22.0%	17.8%	6.8%	8.2%
32.0%	25.5%	8.0%	8.1%
41.0%	34.1%	9.3%	8.4%
51.0%	41.3%	7.5%	8.2%
60.0%	52.1%	12.0%	8.8%
71.0%	63.2%	10.0%	9.0%
80.0%	73.9%	12.0%	9.3%
90.0%	100%	14.0%	10.0%
100.0%	100.0%	14.0%	10.0%

#### VantageScore KS = 15.7 Subprime consumers

Subprime

Percent total	Percent bad	Interval bad rate	Cumulative bad rate
10.0%	5.0%	4.9%	4.9%
21.0%	11.5%	6.3%	5.6%
30.0%	19.1%	8.2%	6.4%
41.0%	28.6%	9.2%	7.1%
51.0%	37.8%	9.2%	7.6%
60.0%	47.6%	10.0%	8.0%
70.0%	59.1%	12.0%	8.5%
80.0%	71.6%	13.0%	9.0%
90.0%	84.8%	13.0%	9.5%
100.0%	100.0%	16.0%	10.0%



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practice is legal today. The situation lends itself to widespread abuse in a credit market environment that is slowing down and growing more risk averse.

The use of traditional credit risk scores that take authorized user tradelines into account for underwriting purposes has downstream delinquency implications for lenders as subprime borrowers who presented themselves as prime or low-risk prospects can no longer afford the debt extended to them at loan origination. Even more troubling is the prospective use of this practice to defraud an organization, whereby fraudulent credit seekers use anonymous good credit profiles to load up on authorized user tradelines to secure access to lines of credit with no intention to pay.

In light of this loophole and the potential threat it poses to lenders, a decision was made during the development of VantageScore to exclude authorized user tradelines, both with good and bad payment histories reported on them, from the final score algorithm. This approach was taken to ensure the risk assessment of a potential borrower provided by a credit risk model represents the true credit risk of the prospect and not that of the actual borrower with whom the authorized tradeline is associated. This true credit score will allow lenders to make accurate risk decisions during the underwriting process and ensure new account originations align with internal risk policies and do not pose a threat to the overall financial health of the portfolio once acquired.

## Conclusions

As lenders seek new ways to continue to grow their portfolios while managing acceptable delinquency rates, they will require new tools to identify qualified prospects and manage risk within a portfolio more effectively. Experian's study highlights deficiencies in traditional credit risk scores in the subprime consumer segment and demonstrates how VantageScore can be used by lenders to:

- Expand the universe of creditworthy and viable consumers by as much as 11 percent in the subprime population
- Improve risk assessment through more granular separation of relatively lower-risk and relatively higher-risk subprime consumers
- Minimize new risks that are emerging in today's online economy by excluding authorized users from credit risk score calculations

As Experian's findings indicate, the use of VantageScore can play a significant role when lending in the subprime segment and, as such, represents a powerful new tool that can be leveraged to achieve the core goals of any financial institution. As the use of these new tools becomes more widespread in the lending marketplace, both financial institutions and consumers will benefit from a more accurate representation of the credit-seeking consumer base across industries and risk segments.



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