Trended Solutions℠:

Fueling profitable growth

An Experian white paper

Experian®

Executive summary

The economic crisis revealed that the traditional approach to portfolio management is flawed. The “post model adjustment” method of calibrating risk models — applying a generic adjustment to predict future risk — confirms there are additional tools needed to manage losses. Today’s marketing models designed to target profitable consumers are too correlated to risk, and are unable to identify quality prospects who will deliver revenue. The old model was unable to keep pace with the rate of change and failed to be predictive as the economy recovered. The new regulatory environment caused additional strain by rendering large portions of lending portfolios unprofitable. New regulations mean limited options to increase revenue in an attempt to compensate for poor risk management and marketing strategies. These factors all lead to an undesirable return on capital.

Because lenders have been focused on managing risk, acquisition strategies have become very conservative and lenders are primarily targeting prime and super-prime consumers. This tendency has increased competition in these segments, but often at the expense of profitability to the overall portfolio. To achieve confident growth, prospecting, acquisition and portfolio management strategies will need to be updated to create a new understanding of a consumer’s risk and revenue potential.

This white paper demonstrates that a different way of understanding consumer behavior is the key to creating the necessary strategies to create a profitable portfolio. It will show that considering only a current view of consumer credit does not provide the necessary and precise knowledge about how to market to or underwrite that consumer. You will discover that a “trended” view of the consumer will provide the information required to redefine static lending approaches and to create the breakthrough strategy that will deliver profit.

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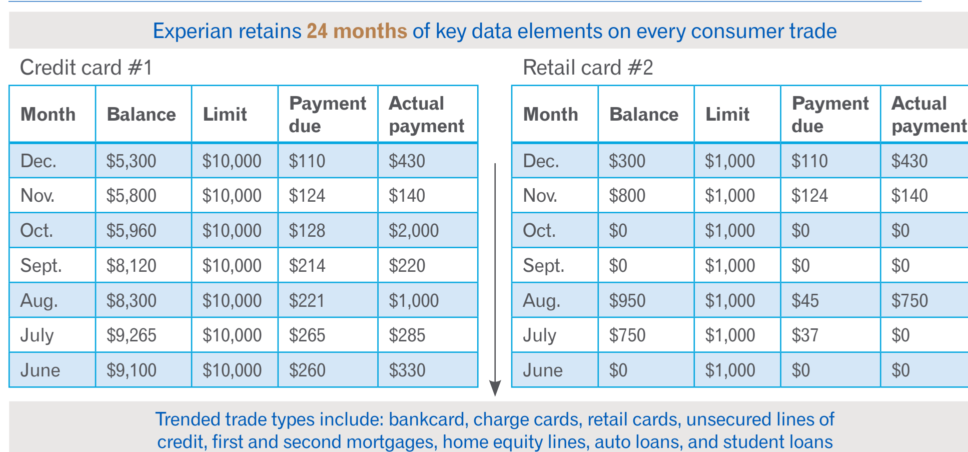
Part one — credit risk

What is trended credit data?

It is much more than payment history. When basic principles are applied against a broader set of historical data, important consumer behaviors are apparent, and these behaviors can be integrated into decision strategies like any piece of criteria or credit attribute. Trended data can reveal a consumer's profitability and risk beyond any existing model.

Figure 1: What is trended credit data?



Experian retains **24 months** of key data elements on every consumer trade

Credit card #1

Month	Balance	Limit	Payment due	Actual payment
Dec.	$5,300	$10,000	$110	$430
Nov.	$5,800	$10,000	$124	$140
Oct.	$5,960	$10,000	$128	$2,000
Sept.	$8,120	$10,000	$214	$220
Aug.	$8,300	$10,000	$221	$1,000
July	$9,265	$10,000	$265	$285
June	$9,100	$10,000	$260	$330

Retail card #2

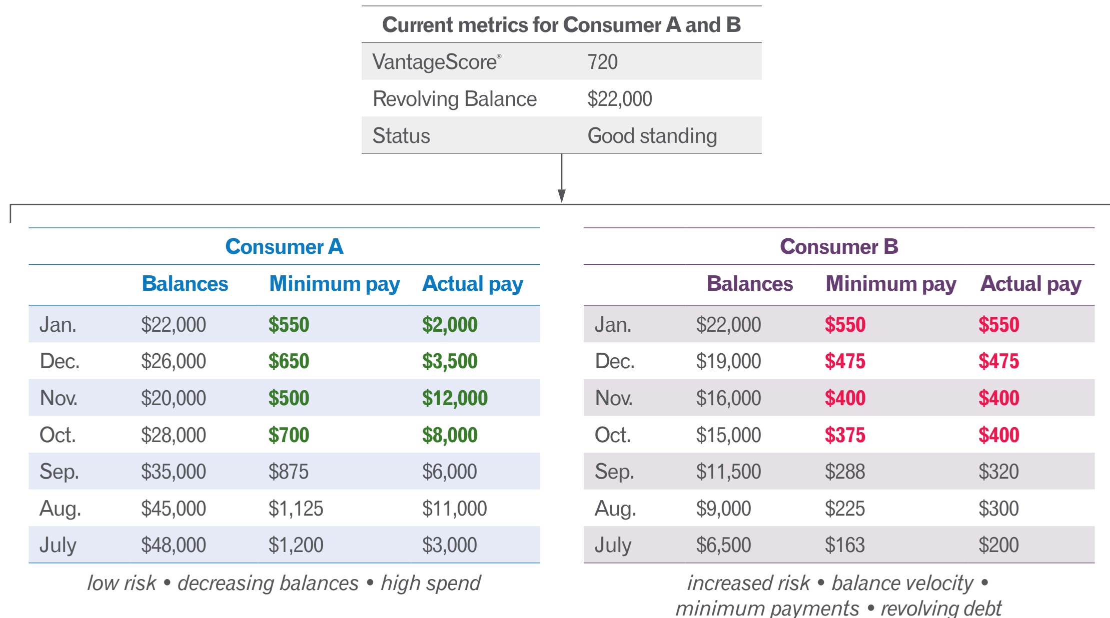
Month	Balance	Limit	Payment due	Actual payment
Dec.	$300	$1,000	$110	$430
Nov.	$800	$1,000	$124	$140
Oct.	$0	$1,000	$0	$0
Sept.	$0	$1,000	$0	$0
Aug.	$950	$1,000	$45	$750
July	$750	$1,000	$37	$0
June	$0	$1,000	$0	$0

Trended trade types include: bankcard, charge cards, retail cards, unsecured lines of credit, first and second mortgages, home equity lines, auto loans, and student loans

What does trended credit data reveal?

Figure 2 (on the next page) reveals how a trended view differentiates consumers who appear to have similar credit risks. Imagine these two consumers apply for a loan — both have the same risk score, the same revolving balances and neither has been delinquent. Should risk and marketing models treat them identically? Looking back over time would suggest significant differences in their ability to pay, their risk and the credit products they would be interested in. Integrating trended data to quantify these differences will support differentiated lending, pricing and product decisions. For example, given the insight that these trends provide, how might you change your credit decision, your pricing, your credit limits, your product offer?

Figure 2: The value of trade-level trended data.



Current metrics for Consumer A and B	
VantageScore®	720
Revolving Balance	$22,000
Status	Good standing

Consumer A

	Balances	Minimum pay	Actual pay
Jan.	$22,000	**$550**	**$2,000**
Dec.	$26,000	**$650**	**$3,500**
Nov.	$20,000	**$500**	**$12,000**
Oct.	$28,000	**$700**	**$8,000**
Sep.	$35,000	$875	$6,000
Aug.	$45,000	$1,125	$11,000
July	$48,000	$1,200	$3,000

low risk • decreasing balances • high spend

Consumer B

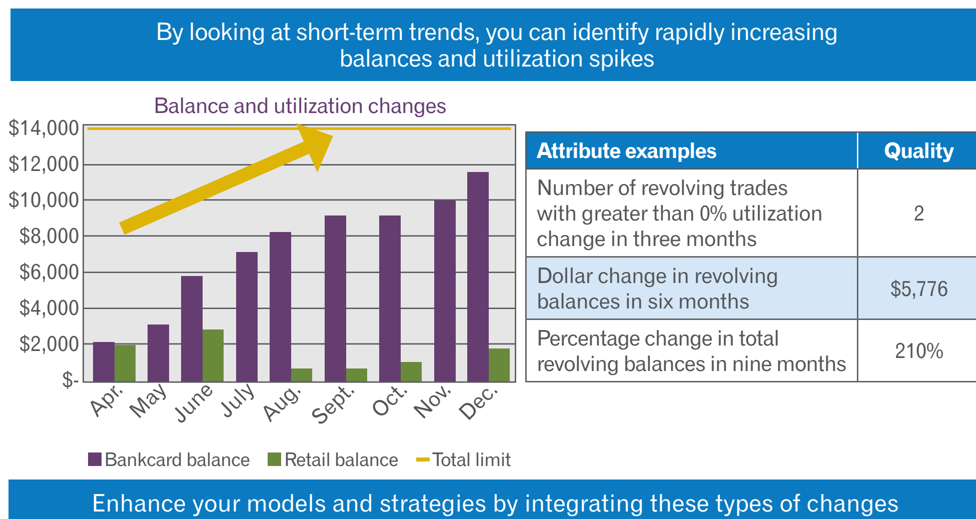
	Balances	Minimum pay	Actual pay
Jan.	$22,000	**$550**	**$550**
Dec.	$19,000	**$475**	**$475**
Nov.	$16,000	**$400**	**$400**
Oct.	$15,000	**$375**	**$400**
Sep.	$11,500	$288	$320
Aug.	$9,000	$225	$300
July	$6,500	$163	$200

increased risk • balance velocity • minimum payments • revolving debt

Quantifying balance and utilization changes

Quantifying changes in balance and utilization identifies risk more accurately than a snapshot view. Trended attributes can provide an added dimension beyond simply considering existing balance levels — you can identify if balances are increasing or decreasing, the actual dollar amount of balance change, the change in utilization, the number of trades that had a utilization spike, etc. Using these types of changes within risk strategies can identify consumers likely to go delinquent before their risk score changes.

Figure 3: Quantifying balance and utilization changes



Attribute examples	Quality
Number of revolving trades with greater than 0% utilization change in three months	2
Dollar change in revolving balances in six months	$5,776
Percentage change in total revolving balances in nine months	210%

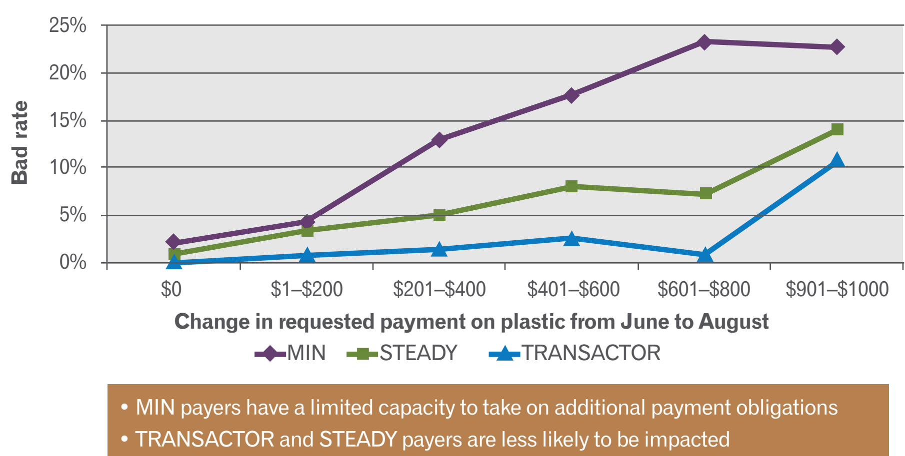
Trended data and payment stress

In addition to identifying balance changes, you can also capture the trend of a consumer's payment history.

Using actual payment data allows lenders to segment consumer risk more effectively. Experian® conducted an analysis that grouped consumers based on how they paid their credit card balances — minimum payers ("MIN payers") paid up to five percent of their balance, "STEADY payers" paid between five percent and 99 percent of their balance and "TRANSACTOR payers" paid their balances off in full.

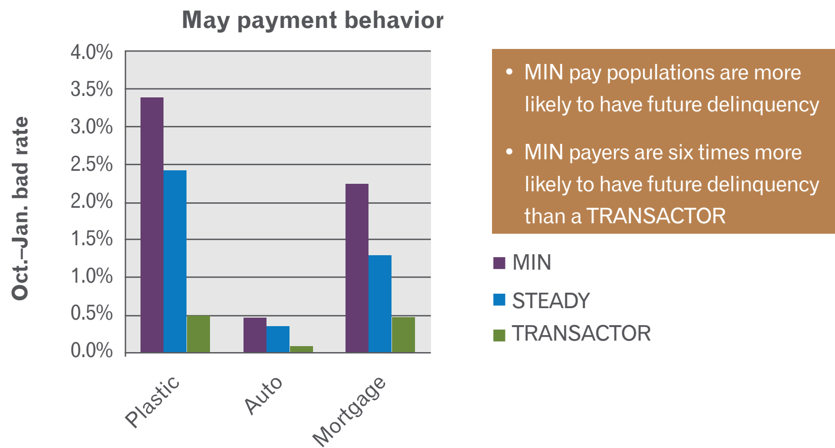
As indicated in Figure 4, MIN payers have limited capacity to assume additional payment obligations on credit cards. On the other hand, TRANSACTOR and STEADY payers are less likely to default as they take on more card debt. This key piece of information is not captured in today's generic risk scores.

Figure 4: MIN payers default more frequently because they are unable to manage increased payment obligations.



Additionally, Figure 5 shows the direct correlation between MIN payers and the propensity to go past due on bankcard, auto and mortgage loans.

Figure 5: MIN pay populations are higher risk.



The study further indicated that changes in payment behavior over time — specifically where risk scores were unchanged in that same time period — became a leading indicator of risk. As depicted in Figure 6, STEADY payers who over time become MIN payers were more likely to go delinquent than those who consistently made minimum payments. *Trended attributes can capture changes in payment behavior to identify payment stress that is not detected in traditional risk scores.*

Figure 6: Changes in payments identify financial stress undetected by risk scores.

Population with < 10 point VantageScore change

	September 2011 behavior		
May 2011 behavior	TRANSACT	STEADY	MIN
TRANSACTOR	0.14%	0.33%	0.73%
STEADY	0.24%	1.51%	**1.99%**
MIN	0.73%	2.35%	**1.65%**
Grand total	**0.21%**	**1.33%**	**1.69%**

Historical risk score changes can differentiate current credit risk

Lenders have been challenged to understand the trajectory of risk scores. Is a consumer's score improving or worsening? Experian used trended data — all displayable to the consumer — to develop a historical proxy score within each of the prior 18 months. Using the trend, you can see if a consumer's risk score has been increasing, decreasing or has remained stable over time. Figure 7 shows that consumers with stable scores present less risk than others.

Figure 7: Consumers with stable risk scores over time are less risky.

Bad rates for average change over 18 months						
Current VantageScore	Overall bad rate	Very stable	Stable	Moderately unstable	Unstable	Severely unstable
600–700	9.67%	6.20%	7.88%	10.07%	11.00%	12.58%
700–800	2.35%	1.89%	1.95%	2.29%	2.87%	3.33%

Any risk strategy will be substantially improved by incorporating the history of consumer balance changes, payment behavior, and score changes. As the pioneer of developing and delivering compliant solutions using trended data, Experian can easily aggregate and deliver these important data elements.

Part two — portfolio profitability

Spend: Portfolio management extends beyond traditional risk assessments

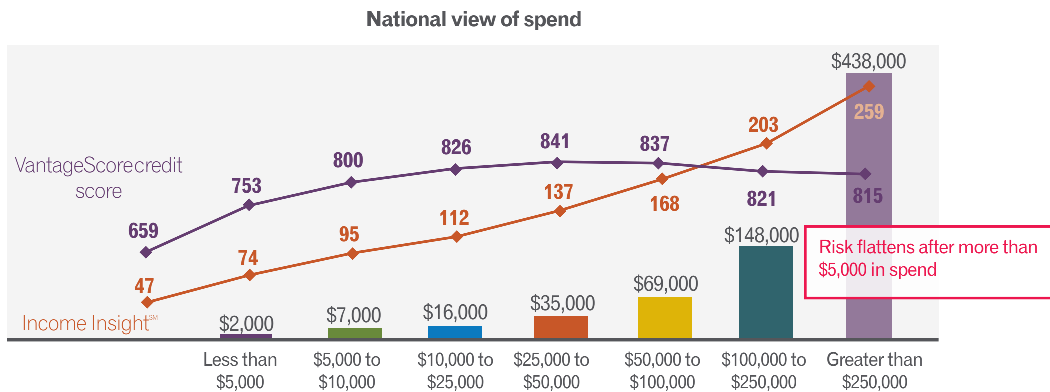
Safety and soundness in lending practices reaches beyond managing risk — there is also a component of delivering a profitable return. How do you know if a consumer will use the credit you are issuing? Wouldn't you want to know the right amount of credit to provide based on a consumer's spending history? Insight into spending levels provides a unique understanding of a consumer's credit needs. Knowing how much a consumer spends on credit cards allows you to make the right product offers, provide appropriate credit limits and optimize wallet share. It will enable you to assign high lines to the right set of customers yet still reduce a portfolio's contingent liability, limiting volatility during market downturns.

Experian uses trended data in a complex algorithm that calculates a consumer's last 12 months of credit card spend.

For too long, spend and rewards have been tied to risk score, yet scores alone are not optimal for line assignment or reward strategies and do not effectively identify spenders. Figure 8 shows how spend can add a new dimension in targeting the most profitable groups of consumers. Spend is orthogonal to risk — when spend levels exceed $5,000 annually, average risk scores flatten.

Figure 8: Why is spend important?

To identify high spending prospects, more than just a risk score is required. All low risk populations don't necessarily spend. While income is correlated to discretionary spend, it's also inclusive of low spenders.



Spend data should be a key metric in line assignment strategies in order to maximize return. As shown in figures 9a and 9b, profits are flat across spend segments when credit lines are undifferentiated. Low risk, low spending segments generate only minimal revenue. However, as spend increases, interchange revenue increases as well. Thus, knowing spend allows lenders to optimize line for expected return more efficiently, adding a new dimension in underwriting and complementing risk-based line assignment strategies.

These charts also reveal that low-spend populations (<$5,000 annually) are generating 30 percent to 40 percent less profit than other segments, regardless of risk or line, and therefore, targeting them is an ill-advised use of marketing dollars and creates unnecessary contingent liability. Simply segmenting the population by spend delivers significant value over existing strategies.

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Figure 9a: Case study: The impact of line assignment.

Profits are flat across spend segments when credit lines are undifferentiated.

The portfolio credit lines in the graph below were $8,500, regardless of spend levels.

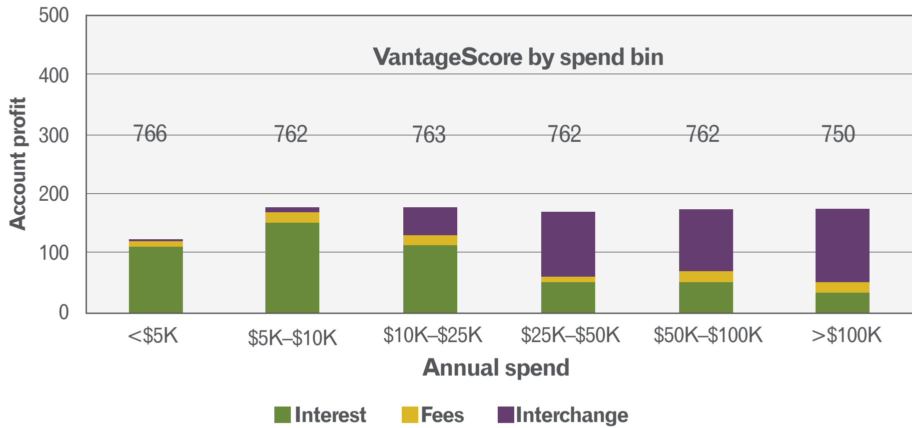
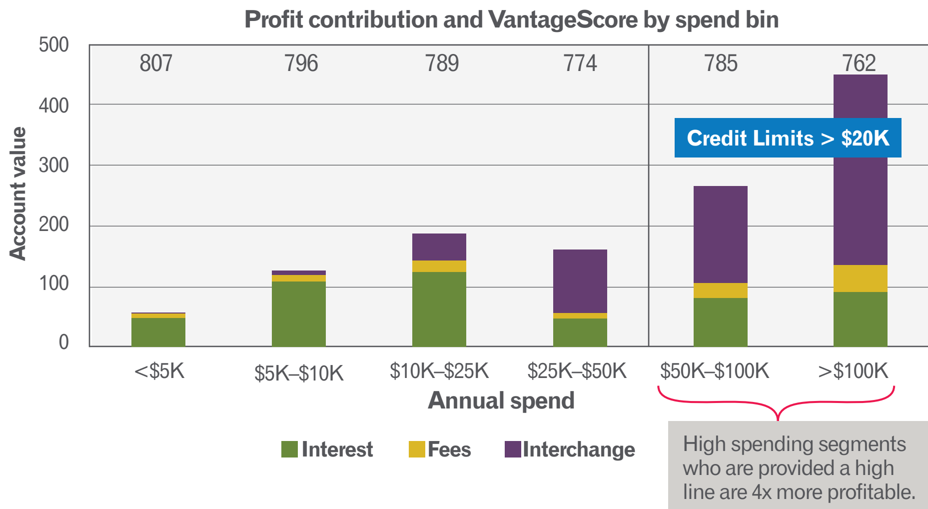


Figure 9b: Case study: The impact of line assignment.

Differentiating line will help optimize profit on high spenders.



Spend opportunity within a portfolio

The low-risk, high-spend population is highly coveted by lenders. Since spend equals interchange revenue, knowing a consumer's total spend allows for the investment in improved incentives and rewards. Adding spend and wallet share within a risk view of a portfolio adds significant value.

Figure 10 is a random sample of roughly 95,000 credit card accounts in an issuer's portfolio. The accounts are segmented first into VantageScore® bands, and then important metrics are displayed within each group. For this issuer, it had 32,542 accounts in the best risk score range — these accounts also had high income and were spending close to $30,000 annually. However, the lender was only capturing about 20 percent of the spend from this population. By understanding which consumers in this group were high spenders on other cards, the bank easily was able to target them with improved rewards programs and better credit lines. More importantly, the bank was able to avoid the need to offer expensive rewards to lower spending higher risk consumers.

Figure 10: Knowing spend also means knowing interchange revenue.

	VantageScore credit score				
Metrics	**500–599**	**600–699**	**700–799**	**800–899**	**900–990**
Accounts (% of population)	6,001 (6%)	9,526 (10%)	19,497 (21%)	26,701 (28%)	32,542 (35%)
Average VantageScore credit score	542	659	764	849	938
Average estimated income	$62,000	$68,000	$75,000	$103,000	$165,000
Average total spend	$5,979	$7,432	$10,999	$14,256	$29,003
Average wallet share	32%	30%	35%	35%	21%
Average spend "on us"	$1,892	$2,212	$3,840	$4,945	$6,133
Estimated average interchange (all)*	$99	$123	$181	$235	$479
Total interchange (all)*	$592,020	$1,168,154	$3,538,384	$6,280,716	$15,572,958
Client opportunity	**$404,680**	**$820,474**	**$2,303,054**	**$4,102,115**	**$12,279,886**

**Interchange rate assumed 1.6 percent*

- With ~35 percent of the sample having a VantageScore of >900 and "off us" spend >$29,000 annually, a high-value group is easily identifiable.
- Segmenting this group by spend level is the key to maximizing profit. Increasing investment in rewards and line for these customers will result in improved revenues.

The other half of the revenue equation in card marketing is interest and fee income. A trended view of consumer credit data can also identify the yield generated on revolving trades and, as a result, provide the effective annual percentage rate (APR) that a consumer pays on those trades.

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Figure 11 identifies the revenue generated in the U.S. by both card spend and interest (VantageScore >700). Thirty-two percent of the U.S. population generates very little income for lenders, yet this population continues to receive offers for expensive rewards programs along with high lines of credit. A unique opportunity exists to allocate marketing dollars toward acquiring the most profitable segments. Lenders will be able to invest heavily into rewards and lines for high-yield high-spending segments, while limiting offers to other populations.

Figure 11: A view of annual interest and spend on U.S. credit cards — populations with VantageScore >700

Segment average: VantageScore / Spend / Interest paid

Interest paid on all cards

2012 (card spend)	Segment average	<$75 low	$75–$500 medium	>$500 high
<$5K low	VantageScore	830	807	784
	Spend	$883	$2,255	$2,519
	Interest paid	$4	$238	$1,421
$5K–$20K medium	VantageScore	875	857	810
	Spend	$11,159	$10,946	$10,823
	Interest paid	$10	$234	$1,962
>$20M high	VantageScore	894	885	848
	Spend	$51,158	$49,979	$61,180
	Interest paid	$9	$246	$2,216

Percent of US Population

2012 (card spend)	<$75 low	$75–$500 medium	>$500 high
<$5K low	**32%**	7%	6%
$5K–$20K medium	13%	8%	9%
>$20M high	12%	6%	7%

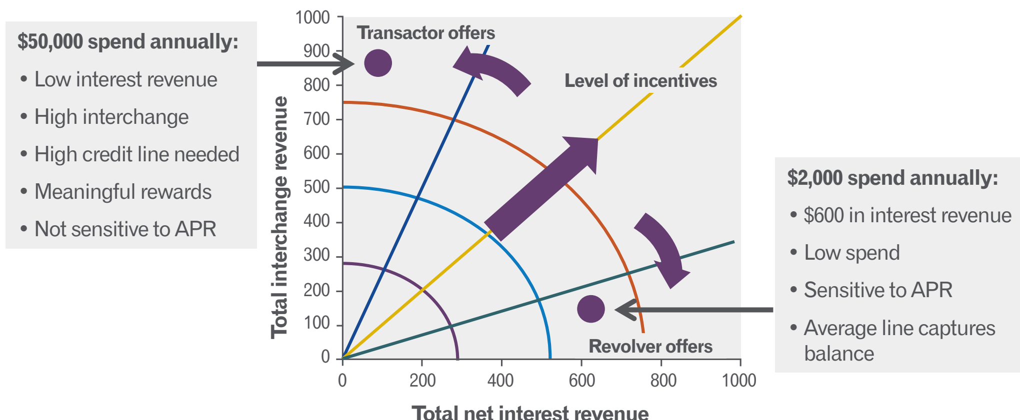
- 7% of the population generates more than $20K spend annually and greater than $500 in interest income. It would be valuable for lenders to identify this population so that they could become “top of wallet”.
- Conversely 32% of the population spends less than $5K annually and pays very little interest. Lenders need to adjust their pricing and line strategy, as “One Line/ One Price” does not fit all.

Spend, yield and targeting

Lenders can improve their targeting strategies using revenue data generated from trends to fine-tune their value propositions.

Figure 12 shows how adding an interchange and interest revenue dimension enables lenders to match the right offers to prospects — by creating incentives aligned with their behavior.

Higher spenders are attracted by different value propositions than revolvers. Aligning offers and levels of incentives with prospects becomes much easier when revenue opportunity is part of the framework.



Every cardholder in the U.S. can be mapped somewhere within this grid. It shows a consumer's total revenue generated through card spend and revolving balances. This view of the population should determine how much investment you make to acquire an account.

Summary

The economic downturn clearly indicated that a single point in time, or "snapshot," of a consumer's risk profile is insufficient to make credit decisions. Moreover, current lending practices are not generating the returns required by the market and investors.

To lend effectively and generate prerecession returns, a change equal to the impact of the regulatory environment or return on capital is required. Experian® has the experience with trended data to create the tools that lenders need for the new economic normal. Using Experian's trended data, lenders can quantify and characterize consumer behavior, which provides robust views of the consumer that can drive new and innovative strategies.

Trended data can:

- Differentiate two consumers who appear to have similar credit risk
- Identify high-risk populations before their risk score changes
- Add a new dimension in targeting the most profitable groups of consumers
- Differentiate the revenue potential of different consumers
- Add a spend dimension to segmentation
- Quantify wallet share
- Quantify the magnitude of change in payment behavior over time and group consumers by payment behavior

Experian has worked with lenders for many years to implement powerful strategies that minimize losses and increase revenues.

Trended Solutions℠ available:	
Trend View℠	Segment credit card behavior - identify revolving, transacting, balance transfer and consolidation activity
Experian TAPS℠	Quantify annual credit card spend
Payment Stress Attributes℠	Identify consumer payment behavior
Deleveraging Attributes℠	Identify consumers that are paying down balances
Quest Line Management Attributes℠	Capture credit limit changes
Short-Term Attributes℠	Quantify balance and utilization changes
Risk Stability Index℠	Determine the stability or trajectory of a consumer's risk score
Balance Transfer Index℠	Identify consumers who are likely to transfer balances within six months
EIRC for Revolving℠	Capture interest income and annual percentage rates on a consumer's credit cards

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