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How Much Is US Credit Behavior Changing?

New FICO research provides answers and points to opportunities

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In recent years, industry and media perception of US consumer credit behavior has swung between extremes. At the onset of the recession, rising numbers of delinquencies were interpreted as widespread deterioration in credit behavior. Earlier this year, media headlines celebrated lower levels of delinquencies, particularly for credit card accounts, as evidence of improving credit behavior. Now, as economic turmoil continues, many lenders say they are expecting delinquencies to rise sharply again across all or most consumer credit types.

Does that mean consumer credit behavior is deteriorating again? Is consumer credit behavior really as volatile as these perceptions suggest?

To find out, FICO conducted research on movements in overall risk score distribution since the beginning of the economic crisis. We also analyzed score movement at the level of individual consumers: Whose score went up? Whose went down? Whose stayed the same? The results shed new light on the nature and extent of changing consumer credit behavior, and provide answers to such questions as:

US consumers with improving credit scores are almost as numerous as those with declining ones.

- How much has consumer credit behavior changed over these years of economic stress?
- Do shifting levels of delinquencies reflect changing behavior?
- How much impact is mortgage pressure having on bad credit behavior?
- What can we learn by looking at the characteristics of consumers whose risk scores have changed?

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» What's Going On Behind the Delinquency Numbers?

In 2011, while continued problems in the housing market brought little or no relief to mortgage lenders, there has been some good news about credit cards:

> *"More Americans are paying their credit card bills on time."* Forbes 4/29/2011
> *"Late card payments fall to pre-recession level."* msnbc 6/15/11
> *"Americans are doing a good job in keeping up with their personal credit card bills."* Consumer Reports 8/17/2011

Still, in FICO's third-quarter ***survey of bank risk managers***, respondents were overwhelmingly pessimistic. They told us they expect delinquencies to rise again not only for residential mortgages, but for auto loans, credit cards and student loans as well.

Both the positive interpretations—*that consumer creditworthiness has improved*—and the negative expectations—*that creditworthiness will dive again*—are based on perceptions that consumer credit behavior is undergoing significant change.

Are these perceptions accurate?

To find out, we first analyzed FICO® Score distributions since 2005 for a nationally representative sample of US consumers with credit bureau files. Risk scores, of course, reflect both positive impacts of credit behavior and negative impacts of behavior such as delinquencies and defaults. We wanted to see if there were discernible shifts in overall risk for US consumers leading up to and during the economic downturn. Here's what we found:

Did you know:

- » 3 million US consumers have dramatically improved their creditworthiness, and fewer than half of them have mortgages.
- » Mortgage pressure played less of a role in severe delinquencies than is widely assumed.
- » Consumers whose scores dropped recently look much different from those whose scores slid early on.

1. Consumer risk score distributions, *at a national level*, have remained relatively stable during this period of economic difficulty

This finding may seem counter-intuitive at first, especially since default rates at most score bands worsened during the economic downturn. Nevertheless, the great majority of Americans continued to pay their bills and manage their credit obligations successfully. Their scores remained high or even improved, balancing out the downward pull on national score distribution caused by people undergoing financial hardship.

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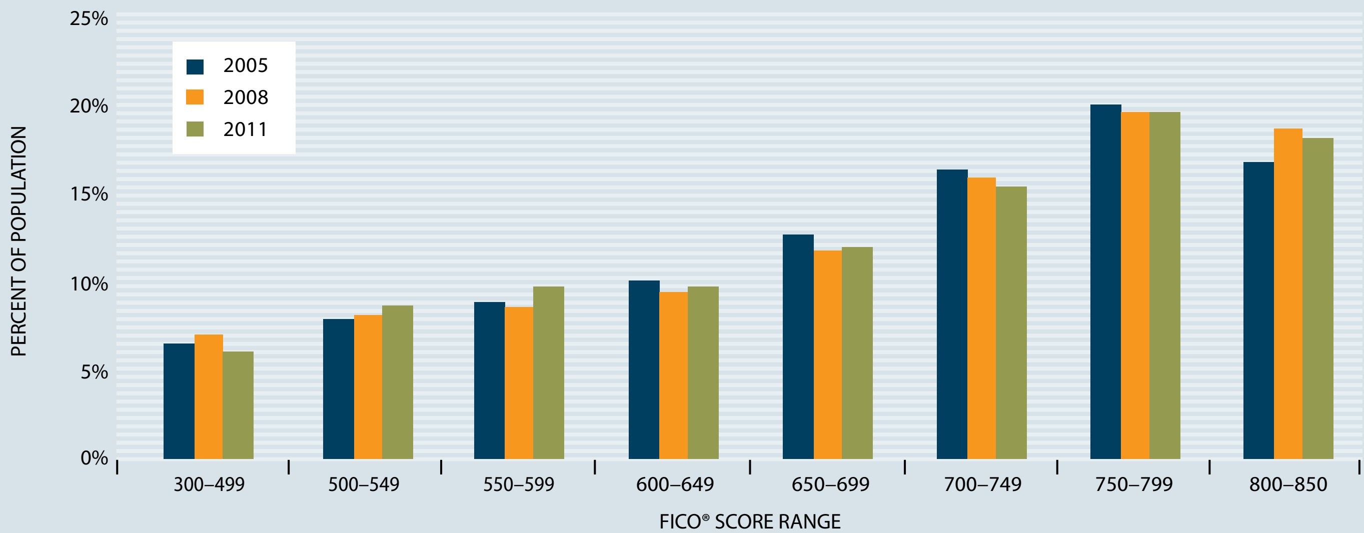
We did find that there were two distinct phases in consumer credit risk that can be seen in Figure 1. From 2005 to 2008, there was movement out toward the two extremes of the score range. The 300–499 score band, which usually has about 13 million consumers, gained an additional million. The 800–850 score band, which usually has about 34 million consumers, gained around 3 million.

Figure 1: FICO® Score distribution has remained relatively stable since 2005



Given the size and diversity of the US consumer population, it takes a momentous economic shock to produce a movement like this, so it's no surprise that this shift coincides with the onset and severest part of the recession that began in 2007. Many consumers who were at the lower-mid score range when the recession hit were already carrying high balances and had incidences of missed payments. Close to the edge, they didn't have the financial resources to weather additional economic pressures and were ineligible for additional credit to tide them over. Delinquencies mounted, sending their scores plummeting.

Many high-scoring consumers, meanwhile, became even more conservative in their behavior, paying down their existing credit obligations and avoiding new ones. Their scores climbed even higher.

We can see a second phase between 2008 and 2011 during which score distribution has moved back away from the ends of the range. The 550–599 and 600–649 score bands have gained a total of 2.8 million additional consumers. The fact that this increase is at the low-middle part of the range suggests that many people are working through serious credit problems, which take time to erase.

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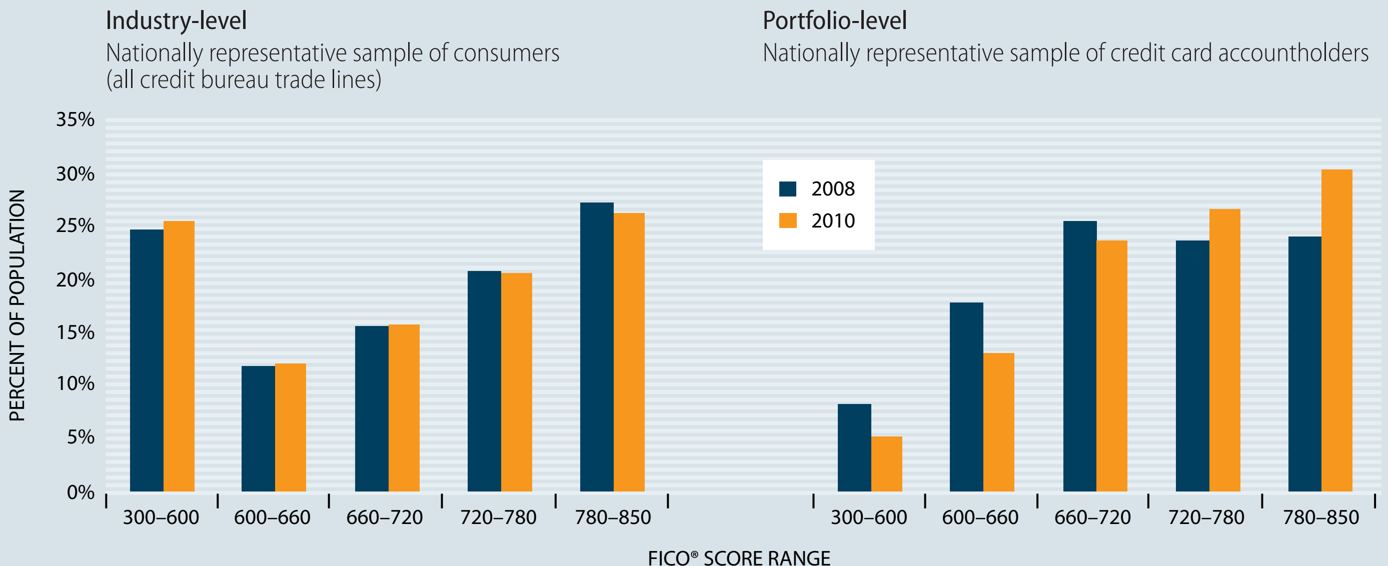
What does this data tell us about the recent improvement in credit card delinquencies? According to reports from the nation's top six issuers, during 2011 late payments and defaults on credit cards both dropped, in some cases to pre-recession levels.[1] But because overall risk score distributions have remained relatively stable, and the odds of default have not fully rebounded to pre-recession levels in the general population, improving consumer credit behavior cannot be the primary driver of this trend. We need to look somewhere else for what's behind the lower delinquency numbers.

To identify driver(s), FICO studied the behaviors of a second nationally representative population sample. This time, we looked just at consumers who currently have a credit card, drawn from a pool of large US bankcard portfolios. Our analysis led us to this second key finding:

2. Recent improvements in credit card delinquencies are being driven less by changes in consumer behavior and more by changes in creditor policies

We can see the impact of these policies in strikingly different FICO® Score distributions for our two population samples. The graph on the left side of Figure 2 shows score distributions for our national sample of consumers with credit bureau files, which includes all trade lines. The graph on the right shows score distributions for our national sample of credit card accountholders. The credit card portfolio risk is much lower.

Figure 2: Comparing industry-level and portfolio-level risk



[1] *"Late card payments fall to pre-recession level," msnbc, 6/15/2011*

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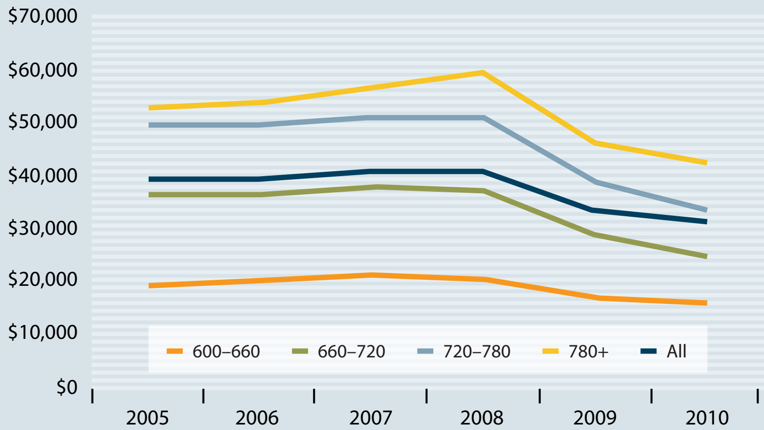
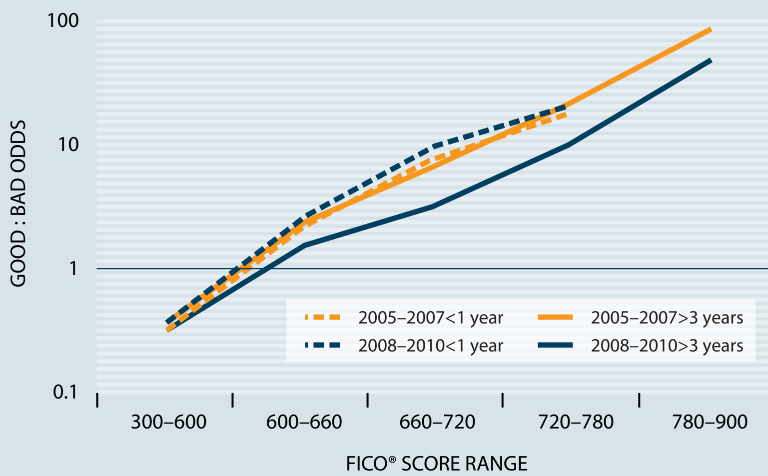




While the dramatic shift to better-scoring portfolios might suggest consumers are handling their credit better, we could also attribute the improvement to actions that the lenders were taking to curb their own risk by cleaning up their portfolios and bringing in consumers likely to weather the economic downturn. For instance, lenders have reduced credit limits dramatically since 2008, nearly $10,000 for the average consumer, which would naturally prompt many consumers to stop using that credit card. This reduction is shown by the "All" dark blue line in Figure 3.

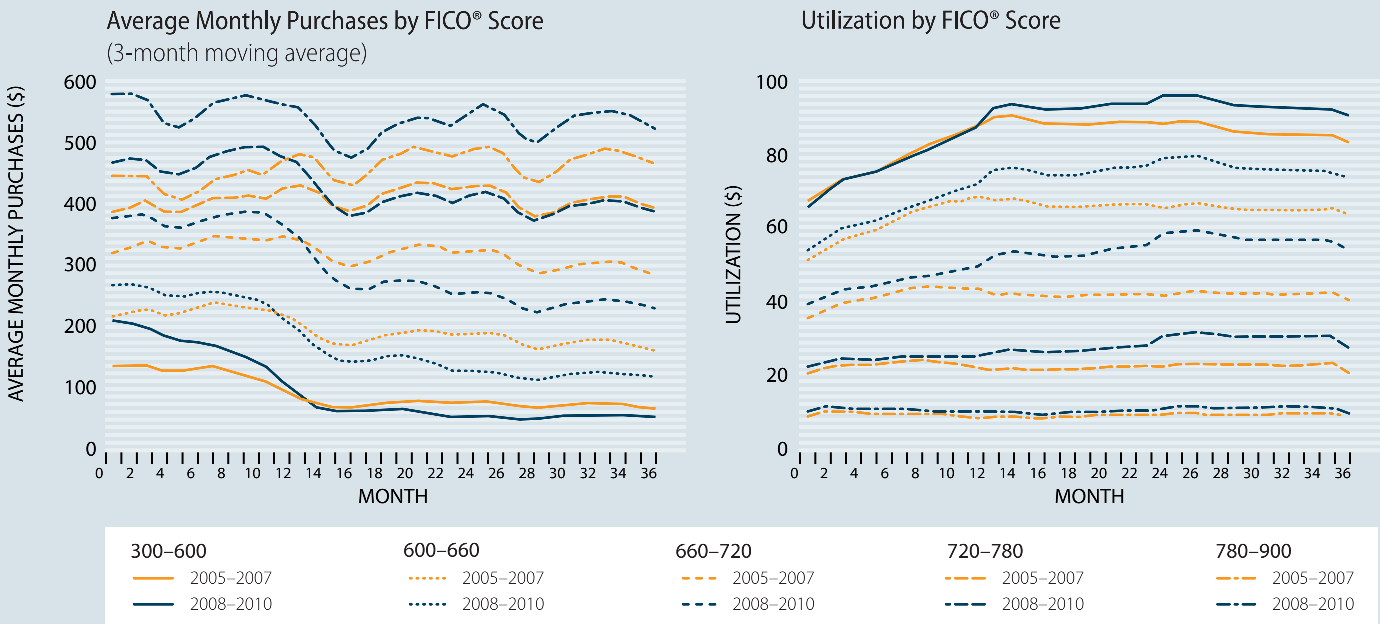
While closing off and reducing existing credit lines, lenders have granted new cards only to a very small "cherry-picked" population. We can see this in Figure 4, which shows the results of comparing a sample portfolio population's new accounts (less than one year on the books) with its existing accounts (more than three years on the books) at two points in time: 2005 and 2008. The performance of these accounts was measured based on a two-year window: 2005 to 2007 or 2008 to 2010, respectively.

The striking change here is shown by how close the orange dotted line is to the orange solid line vs. how far apart the blue dotted line is from the blue solid line. This indicates that in 2005, credit card lenders were originating new accounts (dotted orange) that turned out to have very similar good-bad odds as their existing accounts (solid orange). But in 2008, there's a change. At that point, existing account (blue solid) performance has deteriorated, reflecting the impact of economic stress on many consumers with credit cards. But the performance of new accounts is substantially better, the result of careful lender selection.

3. Lower spending is the most striking overall change in consumer behavior

While our analysis indicates some improvement in portfolio-level score distribution could be driven by lender actions, there were also some distinct consumer behavior reactions. One significant behavioral change can be seen across almost all score levels: Spending is way down. The chart on the left in Figure 5 shows spending trends for our national sample of credit card accountholders during two periods: 2005 to 2007 and 2008 to 2010.

Figure 5: Despite higher utilization, overall spending is down



This finding might seem contradictory since, as shown in the chart on the right, utilization is up in the mid-range to upper score bands. Several points need to be made about utilization: First, since utilization is one of the key factors affecting credit risk scores, the fact that credit card portfolio risk score distributions are improving *despite higher utilization by a significant part of the population*, underscores the role being played by lender policies to cleanse existing accounts and cherry-pick new ones. Second, utilization has not increased for mid-low and low scoring ranges, which represents an even larger part of the population. Third, could the trend toward higher utilization be the result of lower payments and consequent build-up of interest? We think not, since balances were generally heading downward during 2008 to 2010. We believe that the closing of credit lines and stricter new originations policies have resulted in many consumers increasing their utilization of the fewer cards now available to them. This tightening of credit has, along with economic pressures, driven spending down.

A key question for credit card lenders is whether this behavioral change is likely to be a long-term trend. If creditors increase the availability of credit at some point, is spending likely to rise in

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response? This kind of behavioral response is fundamental to the traditional approach of using credit line increases to drive balances and revenue.

No one knows yet if this is a long-term trend. But if spending doesn't rebound, especially at the 700 to 780 score range, card issuers will have to compete harder than ever for a share of wallet from these low-risk consumers. Creditors that can figure out what these prime consumers are spending their money on will have the advantage. As we pointed out in our Insights paper on the ***"New Normal"*** (#53), by analyzing spending patterns, some card issuers are already working on developing innovative products and offers that lure wallet share by giving consumers better deals and easier ways to purchase items they're likely to buy.

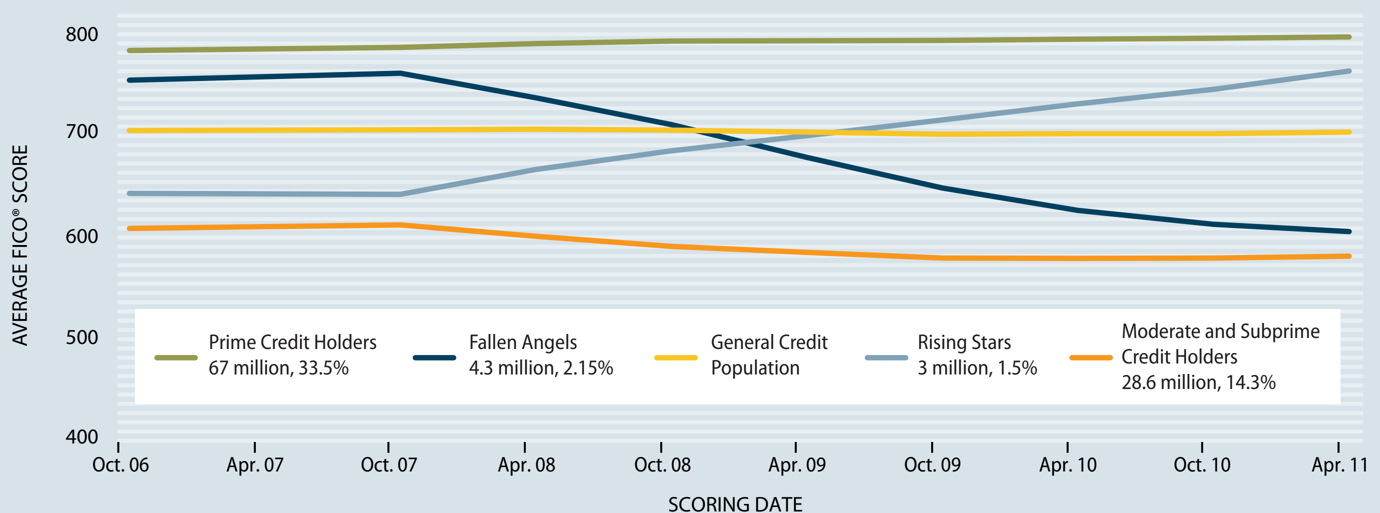
Additionally, if spending doesn't rebound, it's not only card issuers who will have to work harder to "cherry-pick" new accounts. To increase the size and profitability of their portfolios, all lenders will have to reach beyond the "low-hanging fruit" of low-risk consumers for which everybody is competing. To do that, they'll need additional insights into consumer behavior, including not only risk but also willingness and capacity to spend and ability to recover from credit problems.

» Insights from Individual Consumer Score Movement

Additional insight for risk differentiation can be gained by looking beneath overall movements in score distribution to consumer score migration patterns. What can we learn by exploring whose score went up, whose went down and whose stayed the same?

New FICO research analyzes score movement from October 2006 to April 2011 in a national random sample of 10 million consumers with credit bureau files (all trade lines). As shown in Figure 6, we identified four behavioral segments of particular interest. These segments, which together accounted for just over 51% of the sample population, are defined in the sidebar on the next page. Numbers of consumers in each segment are based on an extrapolated population of 200 million.

Figure 6: FICO® Score movement of four behavioral segments
Based on random US credit sample with 10 million consumers



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Here are our key findings for each behavioral segment:

Fallen Angels (4.3 million or 2.15%) are consumers whose scores fell more than 150 points.

- The size of this segment is smaller than public perception fed by massive press coverage of delinquencies and defaults.
- Mortgage pressure played less of a role in these severe delinquencies than is widely assumed. For almost 72% of Fallen Angels, mortgage issues were not the cause of their problems.
- 40% of Fallen Angels had no mortgage.
- Of the nearly 60% of Fallen Angels with mortgages, 53% had not defaulted on their mortgage. These accounts, however, may represent serious future risk for creditors if employment and housing markets do not improve soon.
- 34% of Fallen Angels with defaulted mortgages look to be strategic defaulters, since they defaulted only on mortgages while continuing to pay other credit obligations.

Rising Stars (3 million or 1.5%) are consumers whose scores rose more than 100 points.

- There are nearly as many Rising Stars as Fallen Angels. In other words, there is a healthy segment of people who have taken steps to significantly improve their credit worthiness—only slightly smaller than the size of the Fallen Angel segment.
- Many of these Rising Stars have improved their credit scores while taking on significant additional debt obligations, as shown in Figure 7. Between May 2009 and April 2011:
  - 22.7% opened new auto loans
  - 33.6% opened new credit cards
  - 39.4% opened new installment loans
  - 64.8% opened at least one type of credit account
- Only 45% of Rising Stars have mortgages.

Prime Holders (67 million or 33.5%) are consumers whose scores remained in low-risk ranges.

- Fully a third of the credit population has managed to maintain a stable level of high credit worthiness during a severe economic downturn.
- 52% (about 34.8 million) of Prime Holders have a mortgage.

Segment Definitions

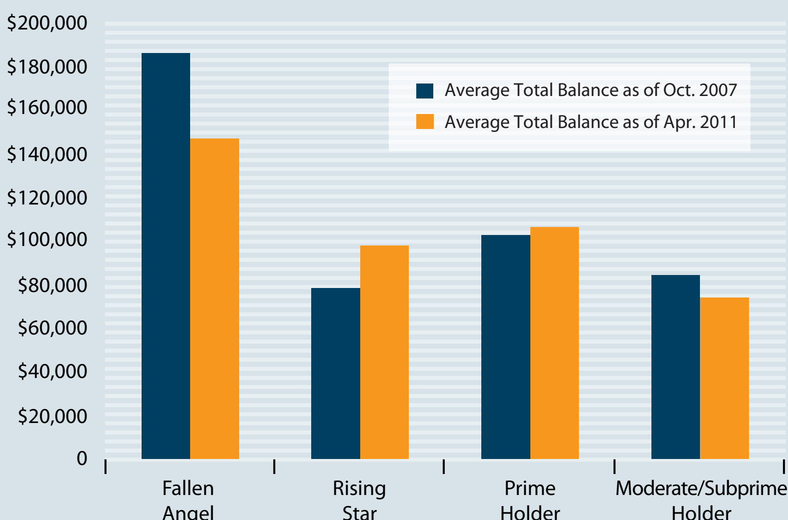
Fallen Angel
FICO® Score stable (within 50 pt. range) Oct. 2006–2007; above 700 as of Oct. 2007; drops 150 pts. or more between Nov. 2007 and April 2011

Rising Star
FICO® Score stable (within 50 pt. range) Oct. 2006–2007; below 700 as of Oct. 2007; rises 100 pts. or more between Nov. 2007 and April 2011; above 700 as of April 2011

Prime Holder
FICO® Score stable (within 50 pt. range) Oct. 2006–2007; above 700 as of Oct. 2007; within 50 pt. range between Nov. 2007 and April 2011; above 700 as of April 2011

Moderate & Subprime Holder
FICO® Score stable (within 50 pt. range) Oct. 2006–2007; below 700 as of Oct. 2007; within 50 pt. range between Nov. 2007 and April 2011; below 700 as of April 2011

Figure 7: Debt change—average total debt balance by segment



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Moderate and Subprime Holders (28.6 million or 14.3%) are consumers whose scores remained in medium-risk and high-risk ranges.

- There remains a significant segment of the population that continues to struggle with credit management.
- An alarmingly large number of Moderate and Subprime Holders, 39%, have mortgages, and 63.8% of them have not yet defaulted on those mortgages though they have problems on other trade lines. This exposure represents a continuing major source of risk for lenders if economic conditions do not improve.
- Only 6% of this segment with defaulted mortgages appear to be strategic defaulters, since they defaulted only on mortgages while continuing to pay other credit obligations.

» Opportunities for Portfolio Growth

Three of the four behavioral segments offer lenders potential for relatively low-risk portfolio growth.

Rising Star opportunities. These individuals have proven their creditworthiness despite a difficult economy. While relatively small in number, they are, nevertheless, a significant pocket of opportunity for portfolio growth. Only 45% of Rising Stars have mortgages, and it's reasonable to assume that a fair number of these individuals have made the effort to clean up their credit rating in preparation for a home purchase. Lenders, of course, will want to monitor their performance closely across trade lines to be sure that improvements in credit behavior stick.

Prime Holder opportunities. These individuals have proven they can continue to successfully manage their credit obligations under changing economic conditions, and many were even able to achieve modest improvements. During the recession, some of them saw their excess credit lines closed or tightened; others saw no change but didn't receive the offers for additional credit one would expect at this level of risk. As a result, they're likely to be good candidates for careful, deliberate credit expansion. Spending levels, however, may not rise under the stimulus of new credit offers alone; lenders must develop innovative products and offers to win wallet share from today's more cautious consumers.

The 48% who don't have mortgages are clearly a substantial opportunity for lenders. Those who already have mortgages, however, could be a hidden source of risk going forward, especially for strategic default, if falling housing prices continue to put more and more homeowners "underwater."

Fallen Angel opportunities. This segment includes many individuals who were good credit risks before being adversely impacted by the economy. There is hidden opportunity here for lenders who can differentiate those with good potential to recover from others in risky score bands.

Insights can be drawn from the consumer's behavior patterns prior to the economic downturn: debt consolidator vs. debt carrier, timely payer vs. careless payer, amount of open credit, etc. In addition, lenders need to try to answer the question: "What caused the fall?" by analyzing behavior patterns leading up to delinquencies and determining whether mortgage pressure played a major role. For insights into recovery potential, lenders can build a more complete view of the consumer by pulling additional data sources—lifestyle, life stage, purchase style, assets, income, net worth, geography, educational level, occupation, age—into their analysis.

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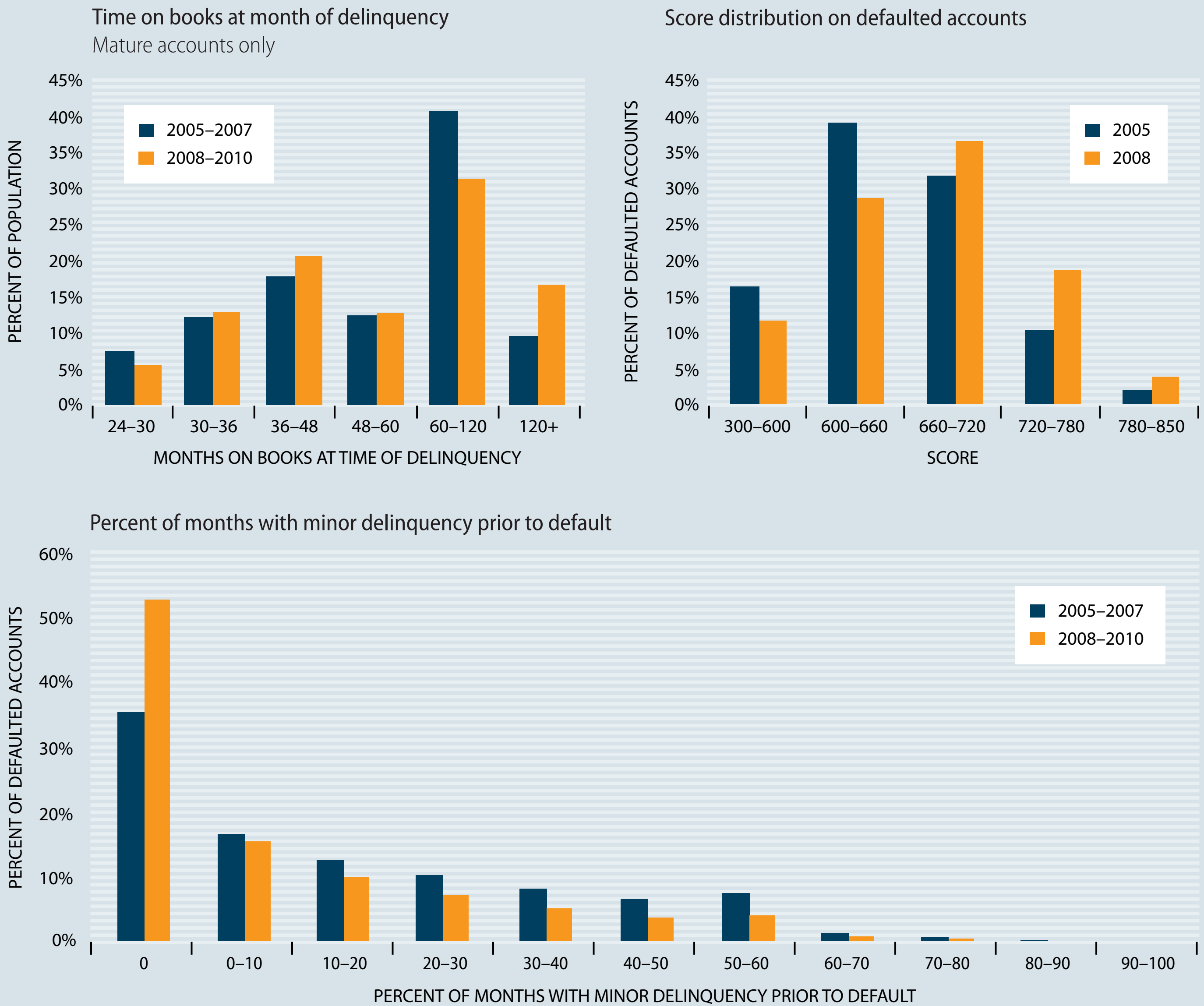
In addition, when the default took place may be helpful in risk differentiation. As shown in Figure 8, FICO research shows that consumers who defaulted after 2008 look more like good consumers than those who defaulted between 2005 and 2007. They were on the books longer, had fewer months of minor delinquency prior to the default, and have higher scores even after the default. They also defaulted for more money: The average balance on defaulted accounts in 2008–2010 was $5,543 compared to $4,935 in 2005–2007.

Figure 8: More recent defaulters have less risky profiles



Delinquency on consortium card
Accounts with 24 months on books or longer with default in 2007

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» Conclusion

How much is US consumer credit behavior changing? Not as much as many of us may have thought.

As recent FICO research shows, despite severe economic stress, consumer credit behavior is actually far less volatile than commonly presumed. Most Americans continue to pay their bills regularly and manage their credit responsibly. As a result, FICO® Score distributions have remained relatively stable over the past half-decade.

Nevertheless, there is much to be learned from analyzing the score movements that have occurred. Lenders have collected detailed consumer behavioral data during an unprecedented economic downturn. We now have the opportunity to analyze that data to better understand how consumers responded to these pressures, as well as to changes in creditor policies.

At the industry and portfolio levels, we now have data on shifts in actual default rates that occurred at specific score bands. With this data, we can build models that describe the relationship between expected default rates and macroeconomic conditions. The output of these models enables lenders to forecast how much default rates at each score band are likely to move up or down under various economic scenarios, and nudge score cutoffs in advance of these changes.

Similarly, at the level of individual consumer decisions, there's the potential for lenders to gain more decisioning insight by analyzing past score movements that coincided with macroeconomic conditions. Eventually, we may be able to go as far as identifying what caused a consumer's credit behavior to change and predicting the likelihood of future behavioral changes under specific conditions. At that point, we gain real insight into individual credit risk in a dynamic economy.

Learn more:

- ***Download*** the Insights white paper about banking innovators using analytics to seize opportunities in dynamic markets (#53: A "New Normal" Is Emerging—But Not Where Most Banks Expect).
- ***Download*** the Insights paper about modeling economic impact on credit risk (#26: How Do Economic Changes Impact Consumer Risk?).
- Subscribe to the ***FICO Banking Analytics Blog*** for the latest updates on FICO® Score trends and other new FICO research.

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For more information	US toll-free	International	email	web
	+1 888 342 6336	+44 (0) 207 940 8718	info@fico.com	www.fico.com

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