2011 topical report series

Experian-Oliver Wyman Market Intelligence Reports

Strategic default in mortgages: Q2 2011 update

OLIVER WYMAN

http://www.marketintelligencereports.com

Table of contents

About Experian-Oliver Wyman Market Intelligence Reports 3
Executive summary 4
Background 6
Defining strategic default in mortgage 7
Strategic default behavior 8
Characteristics of strategic defaulters 14
Implications 22
Managing strategic default 23
Data changes 24

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About Experian-Oliver Wyman Market Intelligence Reports

Experian® and Oliver Wyman have built and analyzed a unique, new data sample from Experian's credit bureau files to develop a range of insights on consumer credit markets. These insights can help lenders understand trends in the broad market and benchmark their portfolios to determine performance improvement opportunities. The Experian-Oliver Wyman Market Intelligence Reports are based on our analysis of this data; this is a one-of-a-kind product that covers the following asset classes:

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- Home-equity lines
- Home-equity loans
- Auto loans and leases
- Bankcards
- Retail
- Student loans
- Other personal loans

For each asset class, the Market Intelligence Reports provide a comprehensive set of metrics, which are segmented by credit score, geography and type of institution. The metrics include:

- Market size and trends
- Product penetration
- Originations
- Delinquency and attrition
- Utilization

The Market Intelligence Reports are produced quarterly and grant subscribers timely access to ongoing trends of the consumer credit industry dating back to 2008, with vintage-specific trends dating back to 2002. The comprehensive reports contain more than 400 pages, featuring more than 800 charts and tables. The reports are provided through an annual subscription.

A subscription to the Market Intelligence Reports also provides access to Topical Reports, which explore hot-button issues in consumer credit. This is the third report in the topical report series and an update to our second report on strategic default, which was released in 2010.

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Executive summary

Strategic default in mortgage continues to be an ongoing issue for many lenders, with no substantial relief in sight. With home prices hitting new lows in the first quarter of 2011 (down 5.1% from a year ago to levels not reached since 2002), prices are now 32.7% lower nationally than they were at their peak in 2006 Q1.[1] Standard & Poor's, the debt-rating agency, and other real-estate forecasters expect a 5 percent drop in home prices in the last nine months of 2011, in addition to the 4.1 percent drop recorded in the first quarter.[2]

Strategic default behavior is driven primarily by negative equity. According to CoreLogic's Q1 2011 Negative Equity Study, at the end of the first quarter of 2011, 22.7% of all residential properties with a mortgage were in negative equity. An additional 2.4 million borrowers had less than 5% equity, referred to as "near-negative" equity. Together, negative equity and near-negative equity mortgages accounted for 27.7% of all residential properties with a mortgage nationwide.[3]

In our previous reports on strategic default, we used a large sample of borrower-level credit bureau data to define the phenomenon of 'strategic default' i.e., a borrower choosing to default on his mortgage even though he seemingly has the capacity to make monthly payments. We used the borrower's payment performance on non-real-estate tradelines as a proxy for his capacity to pay. Our analysis tracked this phenomenon over time and its correlation with loan vintage, geography and number of first mortgages. This report provides the most recent update on strategic default using the most current data.

Overall, strategic defaults − as a percentage of all mortgages that met our definition of default in Q2 2010 − remained high at 17% for the first half of 2010, compared with 16% for the second half of 2009. We estimate the total number of strategic defaults in the first half of 2010 to be approximately 273,600, a 35% decline over the same window in 2009.

Vintage trends continue in the same pattern as seen in the previous reports on this topic: strategic default in the first two quarters of 2010 was almost four times more common among mortgages originated in 2006 than among mortgages originated in 2004. Delinquency was generally higher among 2006 originations, but only by a factor of 2.7.

We continue to find more strategic default in geographies such as California and Florida, which have suffered more drastic home price declines than the country in general. From

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[1] *S&P/Case-Shiller National House Price Index*

[2] http://www.housingwire.com/tag/spcase-shiller

[3] *CoreLogic Q1 2011 Negative Equity Research Trends:* http://www.corelogic.com/uploadedFiles/Pages/About_Us/ResearchTrends/CoreLogic_Q1_2011_Negative_Equity.pdf

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2005 to the first half of 2010, the number of strategic defaulters went up by 32 times in California and by 27 times in Florida.

Strategic defaulters still consist mostly of borrowers with one mortgage who are likely defaulting on loans on their primary homes. They are the most likely, out of all kinds of mortgage defaulters, to go into late-stage delinquency, foreclosure or charge-off status. A significant percentage of strategic defaulters, however, own two or more homes. The incidence of dual homeownership among strategic defaulters is far higher than in the population at large. Strategic default also remains the most prevalent form of mortgage default amongst super-prime borrowers.

With home prices continuing to decline and a lack of successful mortgage relief programs in place, mortgage lenders need to be able to identify strategic defaulters early in order to make the best use of their resources and preempt strategic default where possible. In response to this need, Experian recently developed a suite of mortgage strategic default products that identify the behaviors of strategic defaulters and cash flow managers (borrowers who are facing mortgage-delinquency issues because of temporary distress but continue to make payments on all other credit obligations). These products will be addressed in the conclusion of this paper.

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Background

In the previous versions of this report, we defined strategic default as default behavior in which the borrower has the ability to make monthly payments on his mortgage, but chooses not to do so – most likely for reasons of negative equity. We argued that understanding strategic default behavior was very important in that context, where public policy – and taxpayer money – has been focused on reducing foreclosures by offering homeowners loan modifications. Such modifications typically reduce monthly payments, giving the borrower more incentive to stay in his home. However, a strategic defaulter is not interested in keeping his current home and will likely re-default on his modified loan. We argued that loan servicers will be better off by prescreening these borrowers and developing tactics that attempt to convince them to change their mind.

The government has made an effort to tackle the problem of negative equity through various programs within the Making Home Affordable (MHA) program. This includes the Home Affordable Modification Program (HAMP), which requires servicers to evaluate homeowners with significant negative equity. As part of this program, lenders are encouraged to work with underwater borrowers to write down at least 10% of first mortgage principal and reduce total mortgage debt to a maximum of 115% of current home value.[4] It is important to note that although a servicer is required to evaluate the borrower for a HAMP modification, which includes principal reduction, it is not obligated to actually modify the loan with principal reduction. Furthermore, this program is not available for homeowners who have mortgages held by Fannie Mae or Freddie Mac[5]. In addition to government programs, several large servicers have voluntarily started their own principal reduction programs.

As we've argued previously, while primary market research on homeowner attitudes is insightful, it has certain limitations when it comes to analyzing the national problem of strategic default – in particular, sample size. Another limitation is that primary research surveys report attitudes that often differ from observed behavior. As in our previous papers, the Market Intelligence Reports use a very large, representative sample of credit bureau data showing the actual performance of millions of borrowers over the 2004 – 2010 time period and use a direct behavioral definition of mortgage default.

This updated report on strategic default will address the following questions:

- How can we identify strategic default behavior?
- What does this borrower segment look like? i.e., how characteristics of strategic defaulters are different from other types of mortgage defaulters.
- How can lenders identify strategic defaulters early in order to manage this behavior?
- What tools exist to address strategic default within decisioning?

[4] Source: "*FHA Refinance of Borrowers in Negative Equity Positions*" March 26, 2010 http://www.hud.gov/offices/adm/hudclips/letters/mortgagee/files/10-23ml.pdf

[5] www.makinghomeaffordable.gov

Defining strategic default in mortgage

We continue to define strategic defaulters as follows: borrowers who rolled straight from 60 days past due (dpd) to 180+ dpd, while staying less than 60 dpd on their auto loans and less than 90 dpd on their bankcards, retail cards, and other personal loans, for 6 months after they first went 60 dpd on their mortgage. This definition was used to overcome the challenge of not having data on assets, income and LTV. The fact that they made payments on non-real estate trades for 8+ months strongly suggests an absence of distress and availability of some form of income; the real estate default then is primarily driven by negative equity.

Such borrowers made up 17% of all borrowers who went 60 dpd on their mortgage in 2010 Q2. This incidence of strategic default has declined from its peak of 20% in 2008 Q4.

We also used the same definitions for other mortgage delinquency behaviors that do not fit under the "strategic" definition, and these are summarized in Table 1.

Table 1: Mortgage default customer segments

Segment	Mortgage delinquency behavior	Non-RE delinquency behavior
Strategic default	60 dpd on mortgage, then straight roll to 180+ dpd	No serious delinquency 6 months after 60 dpd on mortgage
Cash flow managers	60 dpd on mortgage; no straight roll	No serious delinquency 6 months after 60 dpd on mortgage
Distressed default	60 dpd on mortgage; including straight roll	Delinquent on at least 1 non-RE trade within 6 months after 60 dpd on mortgage
Paid off	60 dpd on mortgage; paid down loan after delinquency	N/A
No non-real-estate trades	60 dpd on mortgage	No non-real-estate trades

Strategic default behavior

As expected, we continue to see a high incidence of strategic default in recent time periods, as home prices are much lower than they were at the peak of the market. This supports our negative equity hypothesis, as does the fact that this behavior was barely noticeable in 2004.

Figure 1: Mortgage default customer segments by quarter of 60 dpd

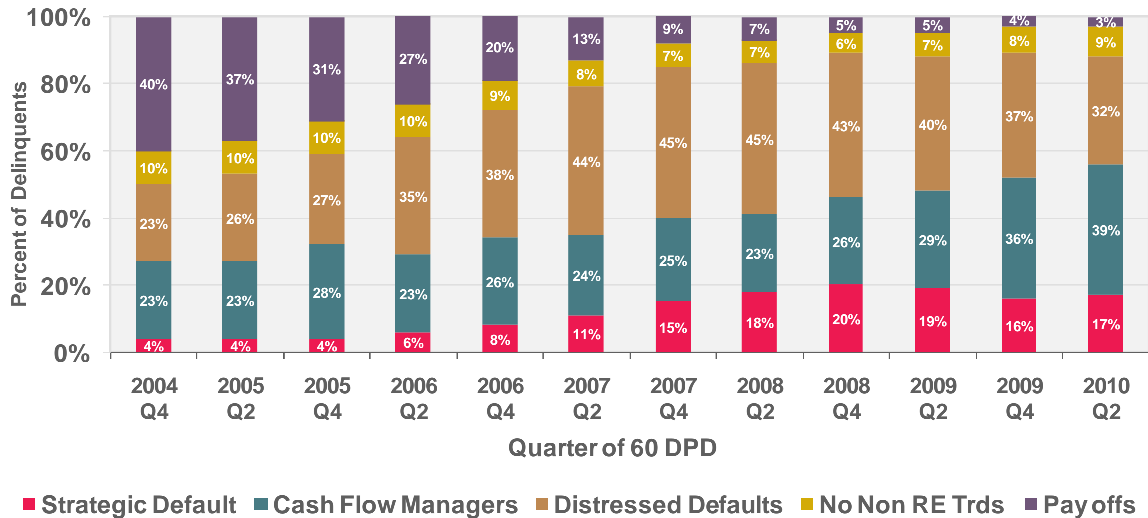

Figure 1 shows the incidence of strategic defaulters growing rapidly from the prerecession years, peaking in 2008 Q4 at 20% of all mortgage defaults and then decreasing slightly in the succeeding quarters, although only gradually. Distressed defaulters, on the other hand, have grown significantly during the recession, peaking in late 2007/early 2008 at 45% and then decreasing in more recent quarters to 32% in our latest quarter. Cash flow managers increased from 29% in 2009 Q2 to 39% in 2010 Q2, as distressed defaulters began to make periodic payments and recover from the recession. Payoffs have declined from 40% to 3% – a remarkable yet expected drop, since most of these were likely to be driven by loan refinancing.

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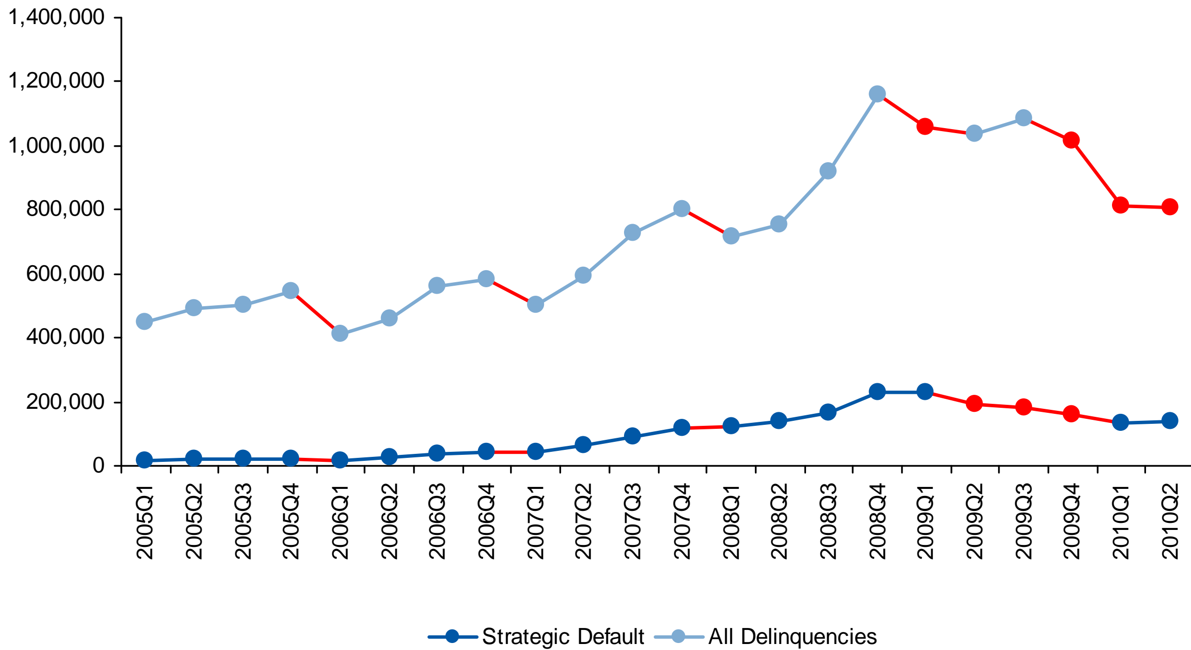
Figure 2: Number of strategic defaulters and mortgage delinquencies (60 dpd)



The estimated number of strategic defaulters in the first half of 2010 declined 35% over the number of strategic defaults in the first half of 2009. While Figure 2 shows that the initial decline in strategic defaults that began in 2009 continued in the first half of 2010, it is likely that many strategic defaulters are currently waiting out the market in the short term for signs of improvement.

Although strategic default as a percentage of total defaults still remains high, it is possible that both total mortgage delinquency and number of strategic defaults may have peaked in 2008 Q4. We do not anticipate these percentages declining much until residential housing prices increase and remain at higher levels. Homeowners will have to see for themselves that their neighbors' houses are selling for higher prices. So far, home prices nationwide still appear to be dropping. In the first two months of 2011, home values fell 1.3 percent and 1.1 percent, respectively, as reported by Zillow.com research, with further drops expected for the remainder of 2011.

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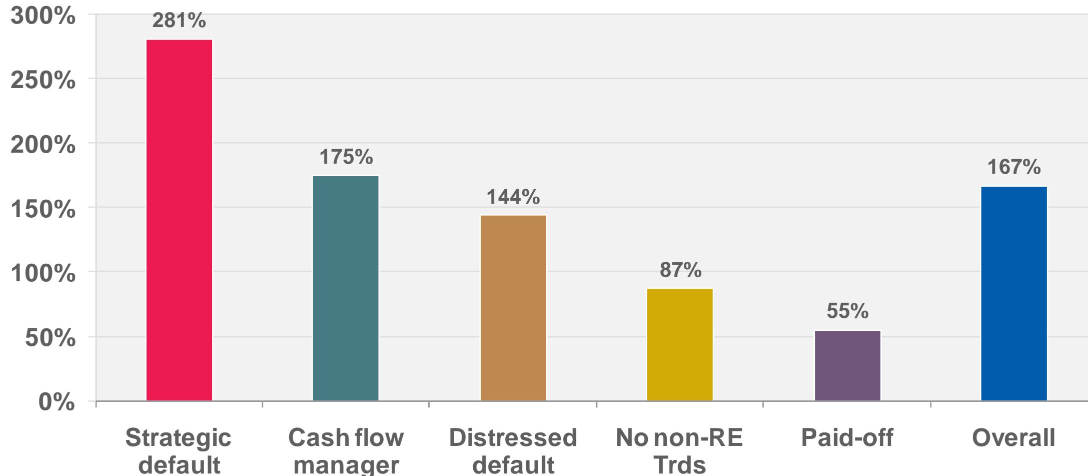
Figure 3: Vintage differences by segment, 2010 delinquencies
2006 vintages compared to 2004 vintages



*Indexed to 2004

Consistent with the findings from our previous reports, we see more strategic defaults among loans from recent vintages. Comparing vintages controls for income distress to a large extent, but not for decline in home prices. So while mortgage delinquencies in the 2006 vintage were more than 150% higher compared with the 2004 vintage, strategic defaults were almost 300% higher, as shown in Figure 3. Cash flow managers and distressed defaults grew roughly in line with strategic defaults, and payoffs showed materially lower growth, as expected.

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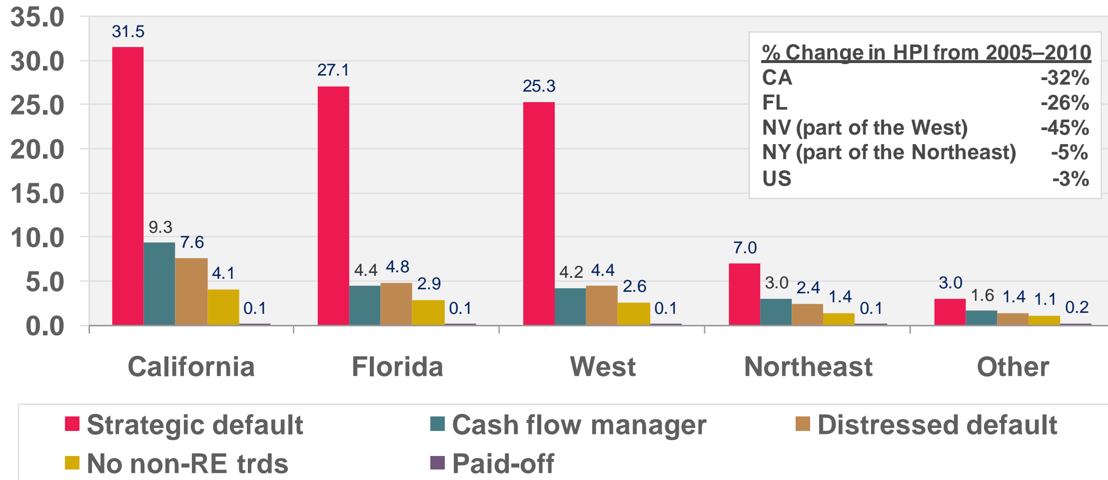
Figure 4: Growth in mortgages entering delinquency (60 dpd) by segment and geography

2010 versus 2005

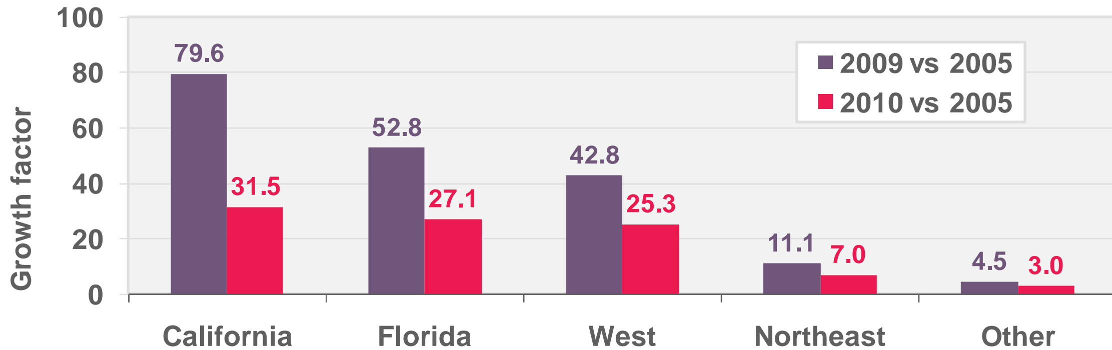


Additionally, we continue to see a higher incidence of strategic default in geographies like California and Florida, which suffered a high decline in home prices, as shown in the percent change in Home Price Index (HPI)[6] chart above. Figure 4 shows this to be the case – strategic defaults in California were 32 times *higher* in the first two quarters of 2010 compared with 2005, with the decrease in HPI for California also at 32%. Florida shows a similar trend with strategic defaults 27 times higher in the first two quarters of 2010 as compared to 2005, which is directly tied to an HPI decrease of 26%.

Cash flow managers and distressed defaults increased too, but by much lower factors and closer in line with overall growth in delinquencies. These segments are less affected by negative equity; hence, we would expect them to keep pace with the overall increase in delinquencies, which seems to be the case.

[6] Home Price Index data provided by the Federal Housing Finance Agency

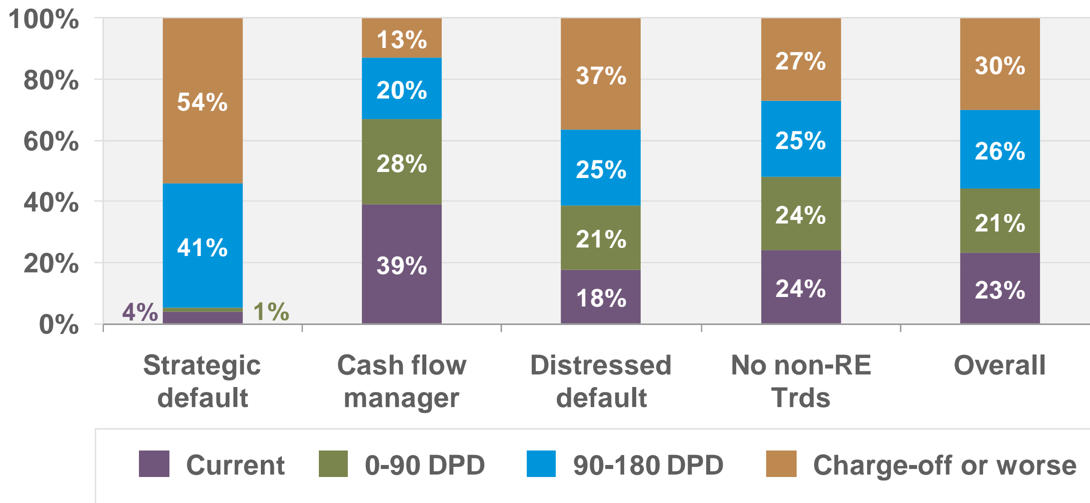
Figure 4.1: Growth in strategic defaulters entering delinquency (60 dpd) by geography



While the incidence of strategic defaults in these geographies is high when comparing 2010 versus 2005 (Figure 4), the rate of increase is significantly lower than it was when comparing 2009 with 2005, as shown in Figure 4.1. California's strategic default growth rate was less than half of its 2009 strategic default growth, while Florida was at approximately half of the previous year's strategic default growth rate.

This may appear to be good news at first glance; however, it is important to note that the home price depreciation rate from 2009 to 2010 did slow down when compared to the beginning of the housing meltdown. Many underwater homeowners who are considering strategic default may be waiting to see what will happen with the housing market over the next 12 to 18 months or may be trying to stay in their home as long as possible. Additionally, there are many homeowners who are currently attempting to have their loans modified or trying to short sell their home and may walk away if neither of these solutions works out. Based on this, it is likely that we will continue to see strategic defaults for some time—particularly in the geographic areas with the highest HPI decreases.

Figure 5: Status of mortgage trade six months after entry into delinquency (60 dpd) 2010 Q1-Q2



Finally, consistent with their definition, strategic defaulters are more likely to charge-off on their mortgage as compared to other segments. As shown in Figure 5, 95% of strategic defaulters had charged off or were in late-stage delinquency, 6 months after becoming 60 days past due. The remaining 5% are potentially the beneficiaries of a loan modification, some of whom seem to have re-defaulted on the modified loan as well. In contrast, 67% of cash flow managers cured or didn't get materially worse; even those who eventually charged off made at least one payment. This is consistent with behavior we would expect of this segment – trying to get their finances back on track with the clear intention of keeping possession of their home.

Characteristics of strategic defaulters

As we discussed in the first part of this report, strategic defaulters and cash flow managers look very similar in early-stage mortgage delinquency – both are delinquent on their mortgage and are not delinquent on any other trades. However, it is critical to distinguish between these segments at that point since cash flow managers are more likely to cure and may well benefit from a loan modification. Strategic defaulters, on the other hand, are most likely to charge-off and a loan modification will probably result in wasted effort and unnecessary cost.

While comprehensively identifying borrower characteristics that can predict strategic default is beyond the scope of this report, we have analyzed certain characteristics that may be used as predictive attributes. These include:

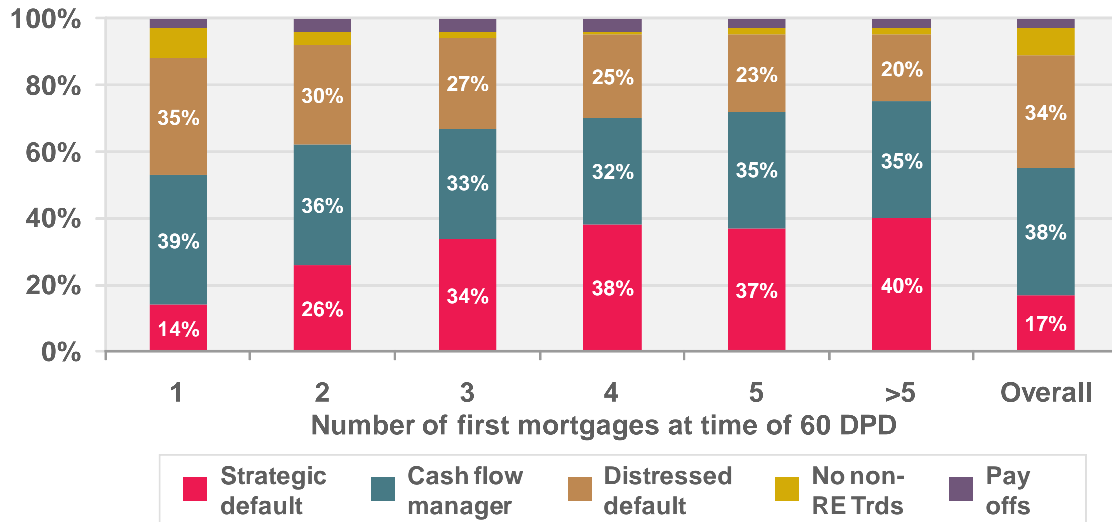
- Number of first mortgages (as a proxy for identifying investors)
- Origination VantageScore®
- Origination mortgage balance
- Income
- Additional behaviors

In addition, current loan-to-value (LTV) should be a good predictor, consistent with our hypothesis.

a) Number of first mortgages

We again find that borrowers with multiple first mortgages, i.e. investors, show higher incidence of strategic default as shown in Figure 6.

Figure 6: Distribution of mortgage default customer segments by number of first mortgages: 2010 Q1-Q2



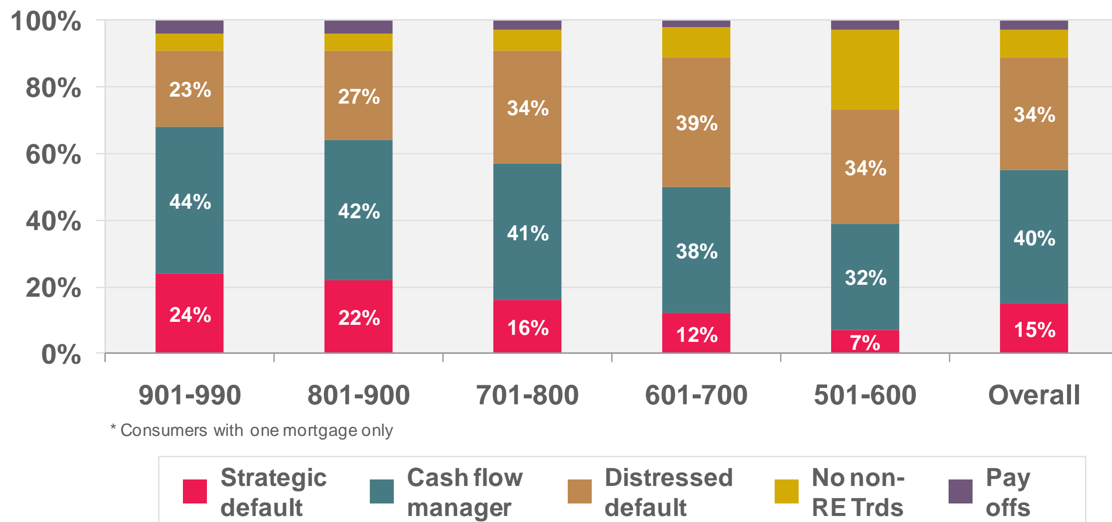
The presence of multiple first mortgages – while a sign of greater wealth and hence ability to pay – also increases the likelihood that one or more of them is an investment property, whereby the owner is speculating the property value will increase. If a borrower is underwater on an investment property, he is more likely to default on it and continue to fulfill his other obligations, including the first mortgage on his primary residence. Consistent with this hypothesis, we find that of borrowers with multiple first mortgages, more than 77% stay current on at least one of them, which is likely to be the one secured by their primary residence.

However, strategic default is not limited to investors. In the first half of 2010, 71% of all strategic defaulters had one mortgage only, implying that they were walking away from their primary residence. The second part of this report showed that this number was 69% of all strategic defaults in 2009 – meaning that a high percentage of those who are defaulting on their mortgages are homeowners walking away from their primary residence.

b) Origination VantageScore

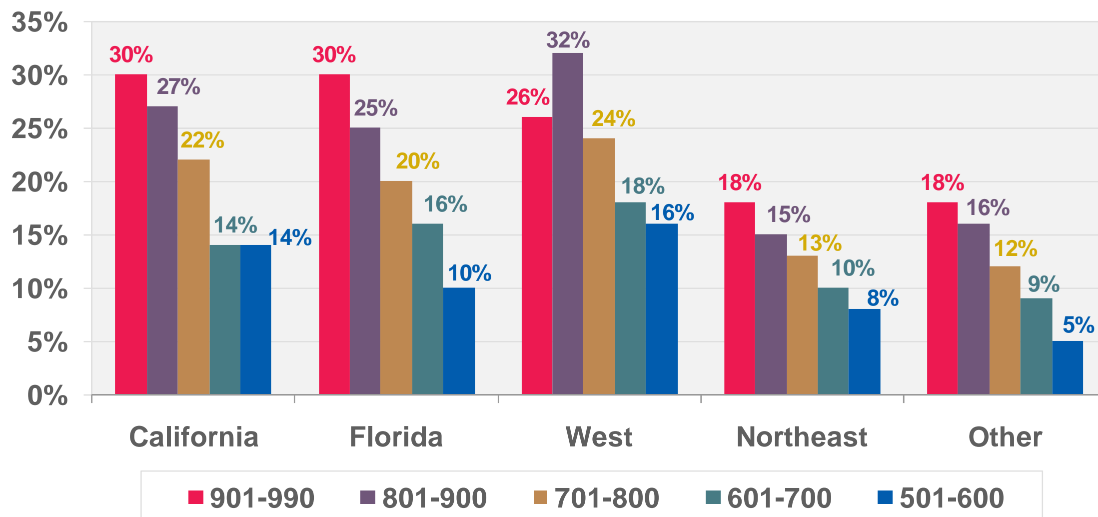
In the first part of this report, we observed that strategic defaulters are more likely to be credit-worthy borrowers, though such borrowers have lower default rates overall. For example, customers with VantageScores between 901 and 990 (prime) had 30% of all mortgage trades in 2010 Q2 but accounted for only 5.3% of all mortgages entering delinquency (60 dpd). However, in the first half of 2010, 24% of these defaulters were strategic, as compared with 15% for the overall population (Figure 7). This is after excluding investors, since they're likely to be more creditworthy and hence may bias the sample.

Figure 7: Distribution of 2010 Q1-Q2 mortgage default customer segments by VantageScore bands (customers with one mortgage only)



Note that we have considered VantageScore at the time of origination, so this conclusion has potential implications for underwriting in that credit-worthy borrowers are more likely to make the financially strategic decision of walking away from their home should a real-estate correction put the deal underwater. Borrowers with higher origination VantageScores were more likely to be approved for mortgages with high LTVs and are therefore more likely to be deep underwater in the current market. This borrower segment is also more likely to be financially savvy and capable of realizing the cost of continuing to hold an underwater mortgage. That said, a very small percentage of these high credit score borrowers are likely to default in most scenarios; the strategic default behavior would only be evident in a severe environment, as we are facing now. We have tested various ways to truly predict strategic default at the point of origination and due to the fact that it is highly correlated with a high wealth, low credit risk consumer, it is challenging, at best. We will address strategic default solutions at the end of this paper.

Figure 8: Incidence of strategic default by geography and VantageScore bands for 2010 Q1-Q2 (customers with 1 mortgage only)



Additionally, even though the higher VantageScore bands are concentrated in geographies such as California and Florida (which we have shown as having a higher incidence of strategic default), this trend holds within these specific geographies too as shown in Figure 8.

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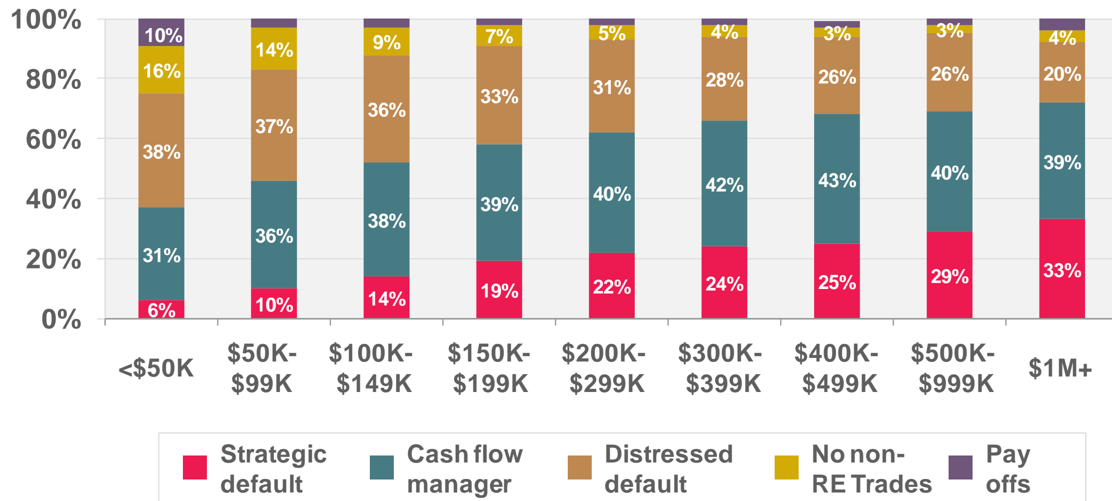
c) Origination mortgage balance

Customers with higher mortgage origination balances are more likely to be strategic defaulters, even after controlling for geography, VantageScore and number of first mortgages (Figure 9).

Figure 9: Distribution of 2010 Q1-Q2 mortgage default customer segments by origination balance



This result is intuitive because otherwise good customers would have a greater incentive to walk away from their mortgage if the dollar amount of the loss, or difference between their mortgage balance and home value, they are facing is higher. Additionally, higher mortgage origination balances are likely to be correlated with higher LTVs, which is a key driver of strategic default.

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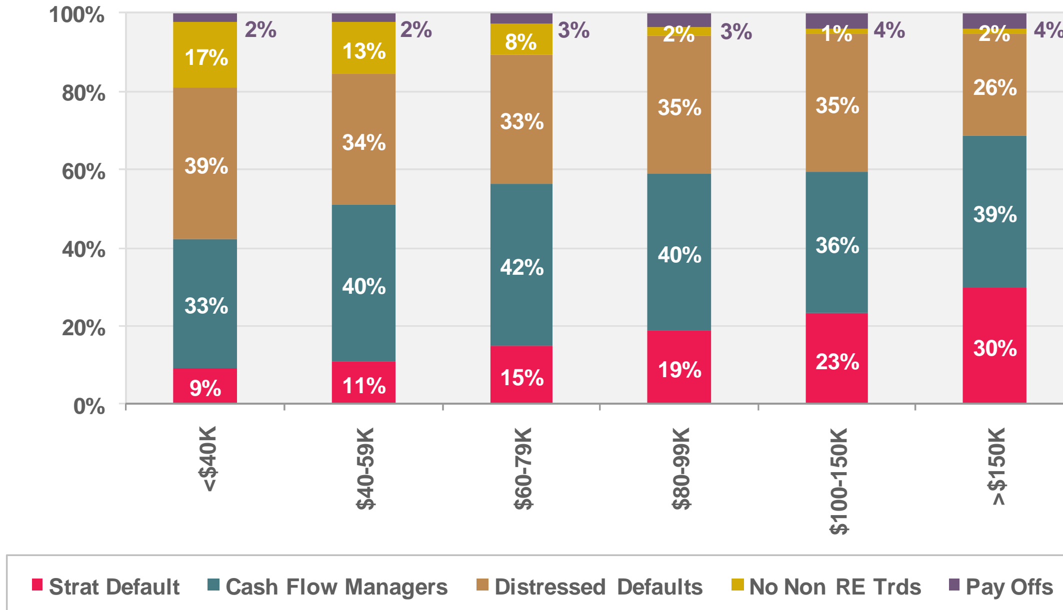
d) Income

Figure 10: Mortgage default customer segments by borrower's income during the 2010 Q1-Q2 delinquency event



Customers with higher income are also more likely to be strategic defaulters. Customers with higher incomes may also be more financially savvy, resulting in a higher rate of strategic default. At an annual income of less than $40,000, only 9% of mortgage default customers were strategic defaulters, compared to 30% for those making more than $150,000. Conversely, distressed defaults were highest for the lowest income tier (39%) and the lowest for the top income tier (26%).

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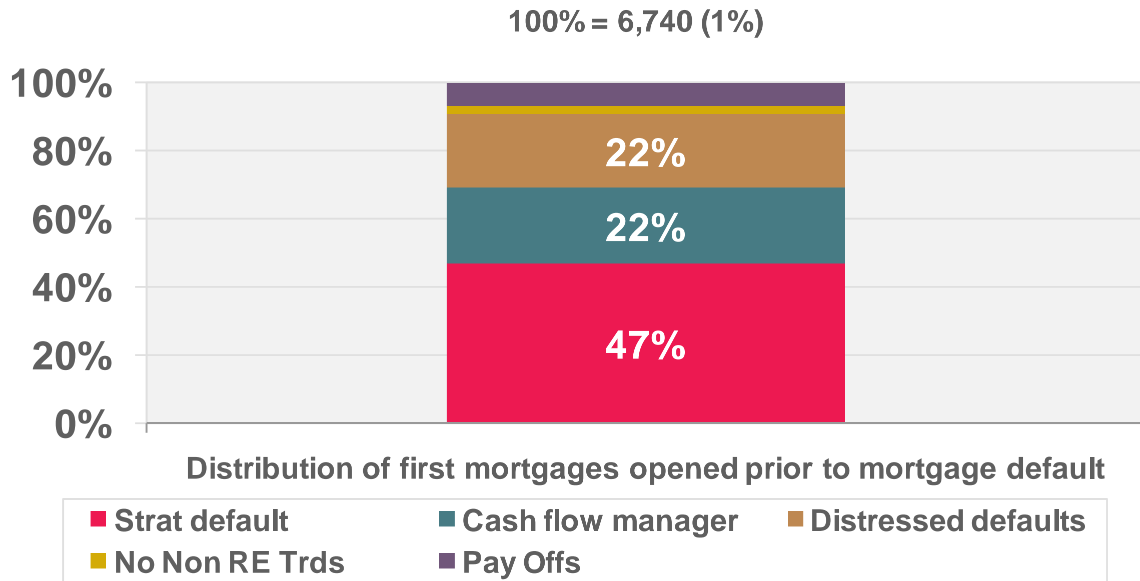
e) Additional behaviors

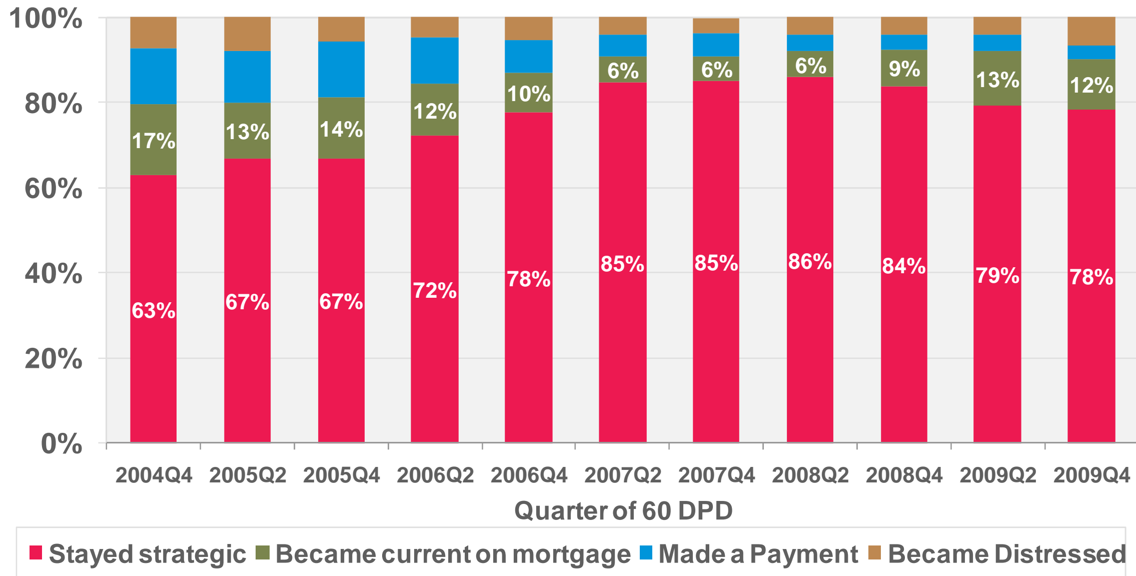
In addition to the key borrower characteristics already mentioned, our analysis of the following strategic behavior characteristics yielded interesting results.

Figure 11: Distribution of first mortgages opened by mortgage delinquents in the six months prior to the delinquency event



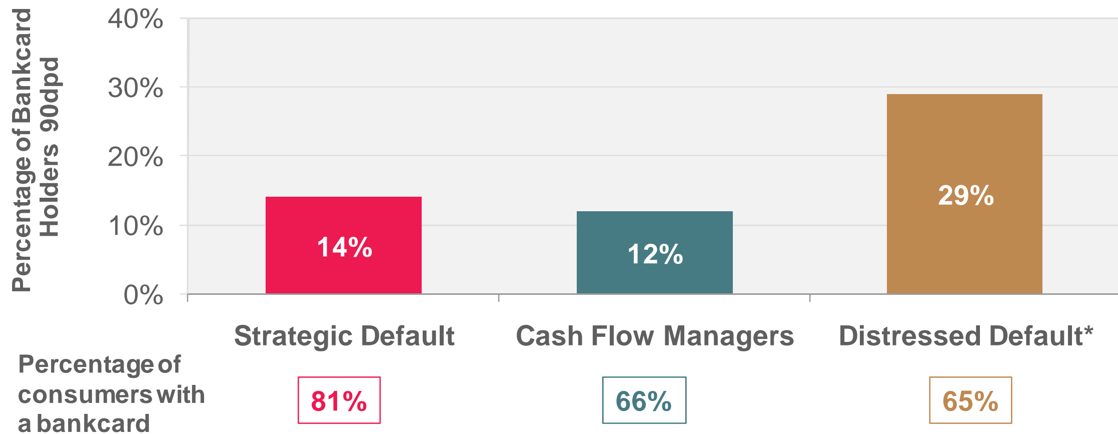
Based on the number of new mortgages opened in the six months prior to strategic default, we confirmed that strategic defaulters carefully plan ahead of time before defaulting in order to purchase another home prior to leaving their current home. Although the overall incidence is low − only 1% of mortgage delinquents open a mortgage prior to going delinquent, the findings suggest that the strategy is certainly in place. Strategic defaulters account for nearly half (47%) of all new mortgages opened prior to defaulting on their mortgage.

Figure 12: Strategic defaulter behavior in 6-12 months following mortgage delinquency event



In our most recent study, we evaluated payment behavior an additional six months after the initial performance window to see how many of our strategic defaulters remained strategically delinquent. As of the most recent quarter, nearly 80% remained strategic defaulters. This reaffirms that the behavior is "strategic".

Figure 13: Incidence of bankcard default 6-12 months after the mortgage delinquency event



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We evaluated the payment performance of strategic defaulters on their other accounts, namely their bank card account, in the six month window following the initial performance window. If a strategic defaulter were truly strategic in nature they would continue to make payments on their bankcard, despite their mortgage delinquency status. Our results indicate that strategic defaulters were more likely to have a bankcard (81% vs. 65%) however were only half as likely to default on their bank card when compared to a distressed consumer (14% vs. 29%) as shown in Figure 8. This data is further evidence of the payment pattern of a strategic defaulter.

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Implications

Many of the implications from the two previous strategic default topical reports are still relevant. Strategic defaulters are a big problem for lenders − they seem to not fit the profile of the "confused borrower" and are likely to take advantage of loan modification programs, trying to stay in their homes as long as possible while making as few payments as possible. They will have a high propensity to re-default, and design of a loan modification program should attempt to limit such abuse. Servicers should develop screening algorithms for such borrowers, based on analysis of characteristics that can predict this behavior as early as possible. This becomes even more important as servicers introduce principal reductions in their loan modification programs.

Cash flow managers, on the other hand, should be key targets of loan modification programs. They are likely to be in temporary distress, and may also have financial resources which allow them to continue to pay their non-mortgage obligations. This clearly demonstrates willingness to pay, and a loan modification that makes their mortgage payments more affordable is likely to be very effective.

Distressed defaulters will likely require more aggressive modifications and help managing finances. They're likely to have been recently unemployed or be facing some other form of distress. Modifications for these borrowers will require aggressive reductions in monthly payments, and even these may not be sufficient to prevent re-default.

These borrower segments raise some interesting questions for non-real estate lenders too. For example, if a credit card issuer knows that a particular customer is a strategic defaulter, should it reduce the customer's line on his card based on the mortgage default? In addition to unemployment or some other form of income distress, under what conditions will these customers default on their card? In today's environment, all card issuers are devoting a lot of time and energy to such pre-delinquency actions, and they need to determine the best course of action for each of these segments.

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Managing strategic default

Mortgage lenders need to be able to identify strategic defaulters in order to best employ their resources and set different strategies for consumers that have defaulted on their loans. Experian has developed a suite of mortgage strategic default solutions that identify the behaviors of strategic defaulters and cash flow managers (borrowers who are facing mortgage-delinquency issues because of temporary distress but continue to make payments on all other credit obligations).

One Experian solution is the Strategic Default Indicators^{SM} which are designed to help lenders identify suspected strategic default behavior as early as possible. There are two ways to identify strategic defaulters. The first set of indicators captures strategic defaulters who were current on their mortgage and then straight rolled to 180 dpd or greater and were current on all non-mortgage trades for either six or 12 months after the initial delinquency. The second set of indicators identifies cash flow managers who were delinquent on their mortgage but did not straight roll (they made a periodic payment) and were current on all non-mortgage trades for either six or 12 months after the initial delinquency.

Experian also offers custom strategic default analysis which consists of a comprehensive analysis based on lender requirements. Lenders can replicate and extend the Experian-Oliver Wyman analysis covered in this paper on their own portfolio. The analysis can incorporate LTV (for a more accurate read on whether a borrower has negative equity) and other account level details. Additionally, the study can evaluate mortgage delinquency and the impact to other products (i.e. bankcard).

In addition, when possible, servicers should evaluate strategies to pre-empt strategic default behavior, including offering equity-risk agreements and incentive plans including incentives such as long-term lower payments or reducing principal loan balances. A carrot-and-stick approach may also work well (e.g. borrower agrees to provide a deed in lieu of foreclosure in case he re-defaults on the modified loan).

Lenders should use processes and attributes that will identify behavior associated with cash flow managers to assess qualification for loan modification and restructuring plans. These recommendations can be combined with one or more of Experian's strategic default solutions to develop the optimal account-management program.

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Data changes

We created the analysis for this update with the newest Experian data extract. Readers will find some differences in the same-quarter numbers between the two reports, reflecting slight differences between the two data extracts. There are several reasons why same-quarter numbers can change, including:

- Loan modifications in the marketplace have led to file changes and status changes
- Lower interest rates have led to an increase in refinance activity, resulting in an increase in the incidence of payoffs.
- Revised lender reporting
    - Reporting changes can occur when one company acquires another, and there have been some significant changes of ownership over these time periods
    - Lenders at times revise previous historical status reports
    - Lenders change reporting standards and methods as widespread changes continue to occur in the financial industry

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