

NEW DEFINITION OF HIGHER-RISK CONSUMER LOANS AND SECURITIES... FORMERLY KNOWN AS SUBPRIME:

FDIC Risk-Based Assessment System for Large Insured Depository Institutions



In February 2011, the FDIC published a new method for assessing higher-risk loans at large banks with more than \$10 billion in assets. The FDIC's purpose for the new method is to redefine how risk is calculated for a large lender's FDIC Deposit Insurance Assessment. As a result of extensive feedback from the industry, the FDIC issued a series of revisions to the original rule incorporated in a Notice of Proposed Rulemaking (NPR) initiated in March 2012. In October 2012¹ the FDIC finalized the rule and it became effective in April 2013.

The new rule defines higher-risk loans as consumer loans where, as of origination—or if the loan has been refinanced as of the refinance date—the probability of default within two years was greater than 20 percent, excluding those consumer loans that meet the definition of nontraditional mortgage loans.

The intent of the rule is to revise the definitions of leveraged and subprime loans in order to:

- Improve accuracy and consistency in identifying and differentiating higher-risk concentrations among institutions
- Reduce the reporting burden by incorporating industry recommendations for probability of default rate definitions with measures used by the industry
- More accurately price deposit insurance premiums for institutions during favorable periods based on expected performance during stress periods

In June 2012, the FDIC and VantageScore Solutions presented a webinar to explain the new method and discuss its impact. The content of the webinar is presented here:

<http://www.vantagescore.com/resource/37>

The FDIC's new rule is a major innovation in the method for determining the volume of higher-risk loans by using loan-level probability of default (PD). The innovative method assesses loan risk using probabilities of default that are reflective of recent economic trends and allows lenders to use any statistically valid credit score model, commercially or internally developed.

WHY A PD-BASED DEFINITION?

Historically, loan risk has been identified simply by using the credit score obtained at the time of the loan's origination. Clearly over the last several years, the industry came to understand that a score of 660² for a loan originated in 2005 has a very different probability of default (PD) than a loan with the same score that was originated in 2009. Figure 1 shows that a VantageScore credit score of 660 in 2009 reflects over twice the risk for a loan with the same score in 2005. To maintain the 2005 level of risk for loans originated in 2009, the minimal acceptable score would need to be increased to 700. In other words, the PD for a score is not absolute and varies according to the results of underlying economic conditions. Simply, the risk behind a credit score changes over time.

Additionally, the need for improved predictive capabilities resulted in the arrival of new credit scoring tools from credit score model developers and through internal lender development. PD, defined prescriptively, provides a means of uniformly mapping scores from different models to a comparable measure of risk. A prescriptive PD-based definition for higher risk loans allows lenders to capitalize on the most accurate tools available to the marketplace.

STANDARDIZING PROBABILITY OF DEFAULT METRICS: CREATING PD MAPS

As mentioned, the new rule allows lenders to use any valid credit score model, provided the model has been aligned with the FDIC-prescribed probability of default data, known as a **PD Map**. Simply, a PD Map is an enhanced version of the traditional odds or performance charts that credit score developers, such as VantageScore Solutions®, provide to their users. Performance charts provide the relationship

between a score range and the probability of default. Credit score bands at the top of the range, e.g., 830 to 850, have low PDs, indicating that consumers with high scores are unlikely to default. Credit score bands at the bottom of the range, e.g., 300 to 320, have high PDs, indicating that consumers have a high likelihood of defaulting.

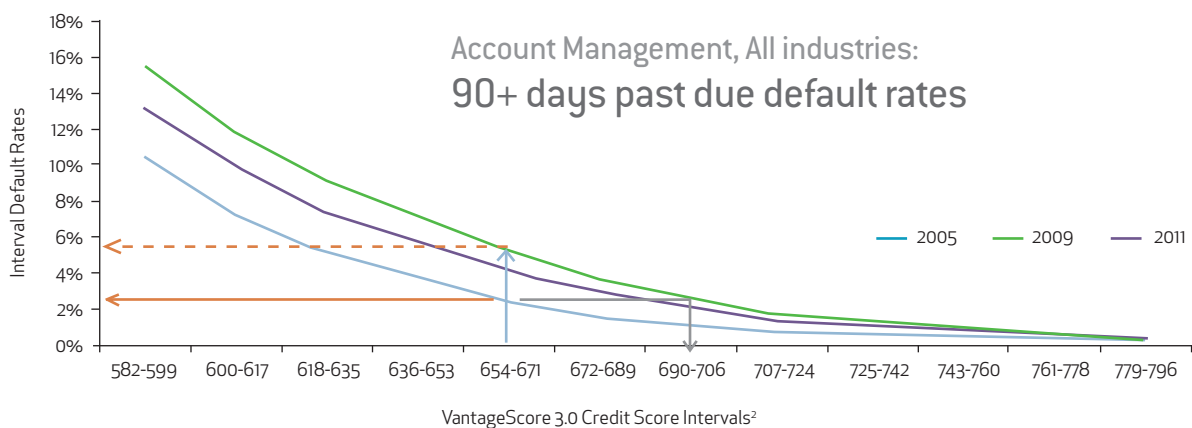
Using such a performance chart as a starting point, the FDIC has provided specific guidance regarding the product types, credit score model design, calculation of the PD and time periods of data to be used in the calculation. Using this guidance, PD Maps can be generated which uniformly align any credit score to a standard interpretation of probability of default. Consequently, risk can be measured consistently for any portfolio and for any lender.

THE PD MAP ATTRIBUTES:

The final rule comprehensively defines all the attributes of the PD Map. Primary attributes are presented here:

- PD Maps will be created by lenders for a number of products. **Products** will be defined as homogeneously as possible. Initial product definitions have been given for real estate, auto, bankcard and 'other,' a catch-all category.
- The **Credit Score Model** used must be empirically derived, demonstrably and statistically sound, satisfying FDIC guidelines and internal governance procedures (Credit Risk assessment tool [12 CFR 202.2(p)]).
- Two **performance windows** of default-rate data are equally blended, July 2007- June 2009 and July 2009- June 2011.
- The **default rate** is defined as the proportion of loans active at the beginning of the observation period that became **90+**

FIGURE 1



¹FDIC, Notice of Proposed Rulemaking, 2012, www.fdic.gov/deposit/insurance/2012_10_31_rule.pdf

²The VantageScore 3.0 scale is 300-850. For the purposes of the example in Figure 1, only 600-800 are shown.

days past due, charged-off, or entered bankruptcy from July 2007-June 2009 and July 2009-June 2011. The default rate is the average of the two time periods.

More details regarding the design and structure of the PD Maps can be found in the 2012 VantageScore webinar³ and in the October 31, 2012 edition of the Federal Register⁴.

PD Maps will be made available to the industry by the three credit reporting companies (CRCs), Equifax, Experian, and TransUnion, in partnership with credit score model developers for each product.

INDUSTRY QUESTIONS

The following are answers to a number of questions related to the new method and PD Mapping:

WHAT PERCENTAGE OF LOANS ARE CLASSIFIED AS HIGHER-RISK UNDER THIS NEW METHOD?

VantageScore Solutions has applied the FDIC method to a randomly sampled population of 5 million anonymous U.S. consumers in order to understand the percentage of loans

FIGURE 2 Higher risk loans. Probability of default is 20% or higher

VantageScore credit score	Auto	Real Estate	Bankcard
	515	558	544
% of population	10%	10%	7%

that are now classified as higher-risk.

PD Maps were generated for real estate, auto and bankcard products. The percentages of loans that qualified as higher-risk are shown in Figure 2.

As expected, the resulting credit score cut-offs and volumes from this method fall well within industry expectations, providing confidence that the method is well aligned while additionally offering flexibility and reference to contemporary economic conditions.

ARE THESE RESULTS CONSISTENT REGARDLESS OF WHICH CRC GENERATES THE MAPS?

Looking at auto PD Maps for all three CRCs, VantageScore Solutions sees a highly consistent interpretation of higher risk (Figure 3). This is due, in large part, to the fact that the VantageScore 3.0 model is identical as applied across all

three CRCs. In other words, a default is assessed in the same way at each CRC. As a result, the only reason a consumer can receive a different credit score is when their credit file data is different.

FIGURE 3 Auto: Higher-Risk Loans

VantageScore credit score	Auto	Real Estate	Bankcard
	519	521	515
% of population	9%	12%	10%

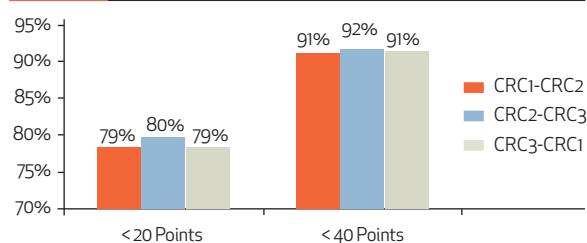
Score cut off and population scoring as higher risk by credit bureau

VANTAGESCORE 3.0 LEVELED CHARACTERISTICS

To yield consistent and equitable attribute definitions across multiple sources of information, the VantageScore 3.0 model uses a patented characteristic leveling process. This ensures that when the same data is present in multiple sources—at least two CRCs—it is interpreted the same way, even though there still may be differences in how the data is defined.

For lenders, a model that levels credit behavior characteristics creates a more consistent picture of a consumer's credit payment behavior, regardless of which CRC provides the data. Figure 4 demonstrates the value of leveled characteristics for risk assessment: 80% of consumers have a score that varies by less than twenty points when the scores are determined by credit bureau 1 and 2.

FIGURE 4 Consumer Score Consistency



DOES THE VOLUME OF LOANS ASSESSED AS HIGHER-RISK VARY SUBSTANTIALLY BY REGION?

Several regional portfolios were created in order to understand how higher-risk loan volumes varied by region, given the divergent impact of the recession across regions of the country (Figure 5). Between 8 percent (Northeast) and 16 percent (West) of a regional portfolio was assessed as higher-risk. Loans in the West carried higher risk, while

³VantageScore, New Definition of Subprime webinar, 2012: <http://www.vantagescore.com/resource/37>. Note that the webinar was developed before the final rule took effect in April 2013 and before the launch of the VantageScore 3.0 credit scoring model.

⁴FDIC, Notice of Proposed Rulemaking, 2012, www.fdic.gov/deposit/insurance/2012_10_31_rule.pdf

⁵FDIC, Notice of Proposed Rule Making, 2010, www.fdic.gov/deposit/insurance/2010-29138.pdf, Congressional Record page 72629

⁶FDIC, Notice of Proposed Rule Making, 2010, www.fdic.gov/deposit/insurance/2010-29138.pdf

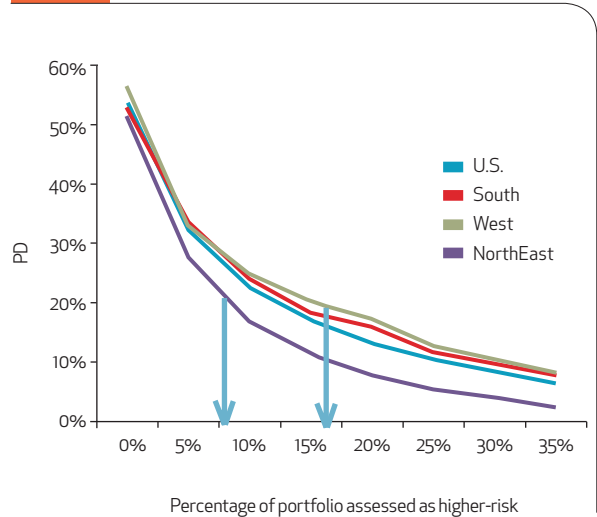
loans in the Northeast carried much lower risk. Based on the composition of their portfolios, lenders might consider developing a custom PD Map specifically on their customers.

HOW WILL THIS INFORMATION BE USED IN THE FDIC ASSESSMENT?

Broadly speaking, the new methodology is focused on deposit insurance premium pricing. More specifically, using the PD Maps, lenders can identify the volume of loans in their portfolios that have a PD that exceeds the 20 percent threshold. The loans will be classified as higher-risk and included as a variable in the Higher-Risk Concentration (HRC) score. The formula for the HRC is provided in the October 2012 Final Rule⁵. The HRC score is a direct input into an institution's Performance Score, which is a measure of financial performance and ability to withstand stress. The Performance Score and Loss Severity Factor, a measure of the relative impact to the FDIC in the event of a large bank's collapse, defines the Total Score, which ultimately determines a large bank's assessment rate⁶.

The new method for identifying higher risk loans improves the quality and accuracy of the assessment process while offering lenders increased flexibility.

FIGURE 5 Regional Portfolios




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The entire web seminar, including many more graphs and participant questions, is available online: www.VantageScore.com/research.

