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WELCOME TO TODAY'S LIVE BROADCAST

THE NEW DEFINITION OF SUBPRIME:  
DETERMINING HOW MUCH SUBPRIME IS IN YOUR PORTFOLIO

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**AMERICAN BANKER.**  
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# FDIC Risk-Based Assessment System for Large Insured Depository Institutions

*Definition of Higher-Risk Consumer Loans and Securities*

*Notice of Proposed Rulemaking, March 2012*



# *Disclaimer*

*The FDIC does not endorse the scoring system or score-to-default rate mapping of VantageScore or any other score provider. Banks may use an internally developed or third party provided mapping to estimate the two-year probability of default for a consumer loan or security provided that the mapping methodology meets the final rule specifications.*

# *Background*

- Final Rule on Large Bank Pricing, Assessments issued in February 2011.
- Industry feedback on related Call Report changes, issued for comment in March 2011.
- Transition guidance.
- NPR with new definitions for higher-risk C&I and consumer loans and securities issued in March 2012.

# *Purpose of the Proposed Rule*

- To revise the definitions of leveraged and subprime loans in order to...
  - improve the accuracy and consistency in identifying and differentiating higher-risk concentrations among institutions;
  - reduce the reporting burden by incorporating recommendations by the industry and better aligning the definitions with measures used by the industry;
  - more accurately price institutions during favorable periods based on expected performance during stress periods.

# *Proposed Definition*

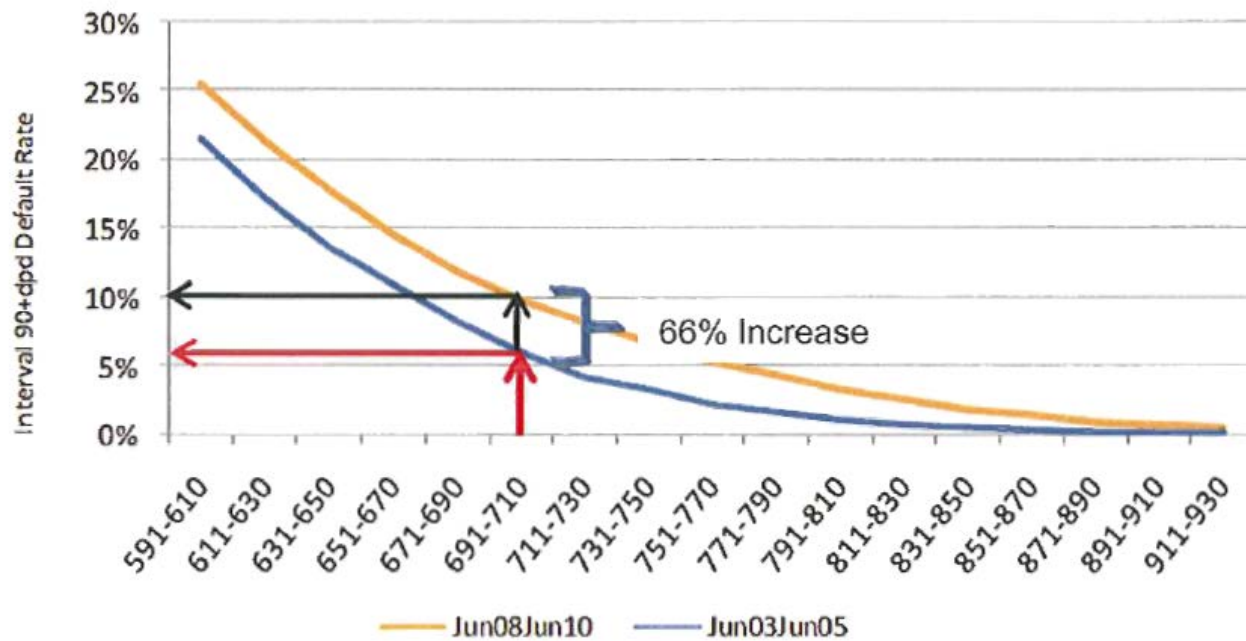
- Higher-risk consumer loans and securities would be defined as:
  - a) All consumer loans where, as of origination, or, if the loan has been refinanced, as of refinance, the probability of default within two years was greater than 20 percent, excluding those consumer loans that meet the definition of a nontraditional mortgage loan; and
  - b) Securitizations that are more than 50 percent collateralized by consumer loans meeting the criteria in (a), except those classified as trading book.

# *Why a PD-Based Definition?*

- Subprime/Higher-Risk measures aimed at capturing higher relative risk versus PD as an absolute risk measure.
- Distinct purpose from Basel II methods.
- Challenges associated with using a definition based on consumer credit scores.
- PD, defined prescriptively, as a means of uniformly mapping scores from different systems to a comparable measure of risk. [\(see chart\)](#)

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## New Accounts - 90+ Days Past Due: All Loan Types





# *Requirements for PD Estimation*

- *“...based on the observed, stress period default rate for loans of a similar product type made to consumers with credit risk comparable to the borrower being evaluated.”*
  - 1) Assessment of credit risk based on an EDDSS scoring system. 12 CFR 202.2(p)(2011).
  - 2) Default rate as the proportion of loans active at the beginning of the observation period that became 90+ days past due, charged-off, or entered bankruptcy from July 2007-June 2009 and July 2009-June 2011.

# *Requirements for PD Estimation*

- 3) Default rate calculated using a random sample of loans stratified by credit score and product type
  - Minimum sample size is 1,200
  - Minimum number of score bands is 15
  - Linear interpolation between estimates
  - Products homogenous with respect to the factors that influence default
  
- 4) PD as the average of the two, 24-month default rates observed from July 2007 to June 2009 and July 2009 to June 2011.

# *Questions about the Specifications*

- How was the time period selected?
- One-year versus a two-year default rate?
- Why a trade line based default rate versus a consumer based default rate?
- Why are we assessing performance based on existing accounts rather than new originations?
- Rationale for choosing the 20 percent threshold?

# *Higher-Risk Threshold and Pricing*

- Loans with a PD exceeding 20 percent shall be classified as higher-risk and included in the Higher-Risk Concentration Measure:

$$HRC = \frac{(C \& D + HR \text{ Consumer} + HR \text{ C \& I} + NTM)}{\text{Tier 1 Capital} + ALLL}$$

- The concentration score receives a 17.5% weight in the calculation of an institution's Performance Score.
- The Performance Score and Loss Severity Factor determine the Total Score, which is mapped to an initial assessment rate ranging from 5 to 35 bps.

# *Feedback on the Proposal*

- Received comments from:
  - 8 trade groups, 8 insured depository institutions, 3 credit reporting bureaus, 2 consumer scoring firms, and 2 individuals.
- Comments included:
  - Provide 3 quarters notice if change the specifications for the estimation of PD or if change the PD threshold.
  - Address how a bank should map the PD of loans to borrowers with no credit history.
  - Allow for more flexibility in the data banks can use to determine whether a loan meets the higher risk definition.

# *Potential Reporting Format*

- FDIC has suggested a format that banks will use to submit data on higher-risk consumer loans in the Call Report. ([see table](#))
- Distinction between ten product types used for reporting purposes versus those used for PD estimation.
- Rationale for reporting balances by PD, as opposed to aggregate balance above threshold.
- Before the format is finalized, the regulatory agencies will publish a PRA Notice seeking industry comments.

# Outstanding Balance of Consumer Loans by Two-Year Probability of Default

Product		Two-year Probability of Default											
		? 1%	1-4%	4-7%	7-10%	10-14%	14-16%	16-18%	18-20%	20-22%	22-26%	26-30%	>30%
All nontraditional residential mortgages	1												
Closed end loans secured by first liens on 1-4 family residential properties	2												
Closed end loans secured by junior liens on 1-4 family residential properties	3												
Revolving, open-end first liens and credit lines secured by 1-4 family residential properties	4												
Revolving, open-end junior liens and credit lines secured by 1-4 family residential properties	5												
Credit cards	6												
Automobile loans	7												
Student loans	8												
Other consumer loans (incl single payment and installment) and revolving credit plans other than credit cards	9												
Consumer leases	10												
Totals													

Note: All reported amounts would exclude the amounts recoverable from the U.S. government, its agencies, or government-sponsored agencies under guarantee or insurance provisions, as well as loans that are fully secured by cash collateral.

1 As defined in the Large Bank Pricing Rule.

2 Schedule RC-C item 1(c)(2)(a), excluding loans reported as nontraditional residential mortgages.

3 Schedule RC-C item 1(c)(2)(b), excluding loans reported as nontraditional residential mortgages.

4 Part of Schedule RC-C item 1(c)(1), "Revolving, open-end loans secured by 1-4 family residential properties and extended under lines of credit."

5 The portion of Schedule RC-C item 1(c)(1) not reported as revolving, open-end senior liens.

6 Schedule RC-C item 6(a)

7 Schedule RC-C item 6(c)

8 Part of Schedule RC-C item 6(d) "Other consumer loans".

9 The portion of Schedule RC-C item 6(d) not reported as student loans, plus item 6(b) "Other revolving credit plans."

10 Schedule RC-C item 10(a)

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# Links to Important Information

- Notice of Proposed Rulemaking:  
*[www.fdic.gov/regulations/laws/federal/2012/2012-03-27\\_proposed-rule\\_01.pdf](http://www.fdic.gov/regulations/laws/federal/2012/2012-03-27_proposed-rule_01.pdf)*
- FDIC Assessment Rate Calculator:  
*[www.fdic.gov/deposit/insurance/calculator.html](http://www.fdic.gov/deposit/insurance/calculator.html)*

# Example – Large Bank Scorecard

Large Institution Pricing Scorecard								
Components	Score Card Measures	Risk Measure Value	Score	Weight to Component	Contribution to Component	Weight to Score	Contribution to Score	
CAMELS	<b>Weighted Average CAMELS</b>	<b>2.200</b>			<b>50.600</b>	<b>x 30%</b>	<b>= 15.180</b>	
Ability to Withstand Asset-Related Stress	Tier 1 Capital Ratio	<b>6.980</b>	86.000	x 10%	= 8.600			
	Concentration Measure (green highlighted measure used)		100.000	x 35%	= 35.000			
	Higher Risk Concentrations	<b>162.000</b>	100.000	Concentration Measure				
	Growth-Adjusted Portfolio Concentrations	<b>43.620</b>	76.190					
	Core Earnings/Average Total Assets	<b>0.670</b>	66.500	x 20%	= 13.300			
	Credit Quality Measure (green highlighted measure used)		100.000	x 35%	= 35.000			
	Criticized and Classified Items	<b>114.000</b>	100.000	Credit Quality Measure				
	Underperforming Assets	<b>34.250</b>	97.730					
	<b>Total ability to withstand asset-related stress score</b>				<b>91.900</b>	<b>x 50%</b>	<b>= 45.950</b>	
Ability to Withstand Funding-Related Stress	Core Deposits/Total Liabilities	<b>60.250</b>	32.622	x 60%	= 19.573			
	Balance Sheet Liquidity Ratio	<b>69.580</b>	73.483	x 40%	= 29.393			
	<b>Total ability to withstand funding-related stress score</b>				<b>48.966</b>	<b>x 20%</b>	<b>= 9.790</b>	
	<b>Total Performance Score</b>						<b>70.920</b>	
Potential Loss Severity	Potential Losses/Total Domestic Deposits	<b>23.620</b>	84.357	x 100%	= 84.357		84.357	
	<b>Loss Severity Factor</b>						<b>1.197</b>	
Total Performance Score x Loss Severity Factor								84.890
Total Score								84.890
<b>Initial Base Assessment Rate</b>								<b>29.99</b>

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# Creating the PD Maps

VANTAGESCORE SOLUTIONS  
JUNE 2012

Presented by:

Sarah Davies

SVP, Analytics, Product Management & Research

VantageScore Solutions

# OUTLINE

- Context: Industry Performance (Odds) Chart
- Building the PD Map: Standardized Design
- VantageScore PD Map observations
- Obtaining the PD Maps

# CONTEXT: INDUSTRY PERFORMANCE CHARTS

		CUMULATIVE %		90+ RATE		CO+ RATE	
INTERVAL (A)	SCORE RANGE (B)	TOTAL (C)	GOOD (D)	INTERVAL (K)	CUMULATIVE (L)	INTERVAL (M)	CUMULATIVE (N)
1	971-990	1.90%	2.00%				
2	951-970	3.20%	3.50%				
3	931-950	5.60%	6.10%				
4	911-930	10.00%	10.90%				
5	891-910	17.00%	18.50%				
6	871-890	25.80%	28.00%				
7	851-870	34.20%	37.10%				
8	831-850	41.30%	44.80%				
9	811-830	47.30%	51.30%				
10	791-810	52.50%	56.80%				
11	771-790	57.30%	62.00%				
12	751-770	62.20%	67.10%				
13	731-750	67.40%	72.60%				
14	711-730	72.10%	77.30%				
15	691-710	76.70%	82.00%				
16	671-690	81.50%	86.60%				
17	651-670	85.60%	89.10%				
18	631-650	89.10%	92.30%				
19	611-630	92.30%	94.80%				
20	591-610	94.80%	96.70%				
21	571-590	96.70%	98.70%				
22	551-570	98.10%	99.40%				
23	531-550	98.90%	99.70%				
24	501-530	100.00%	100.00%				

FDIC: Loans with an interval default rate of 20% or greater are defined as 'Higher Risk'

What is the credit score that corresponds to the 20% Probability of Default (PD) rate?

Interval 90+dpd Rates

	2004-6	2007-9	2009-11
<b>651-670</b>	12.50%	16.48%	15.23%
<b>631-650</b>	17.26%	21.73%	19.50%
<b>611-630</b>	22.94%	27.57%	25.29%

**20% PD = 611-650      631-670      611-650**

## BUILDING THE PD MAP: STANDARDIZED DESIGN

- **Probability of default:** Two-year probability of default for loans where,
  - Qualifying loans are defined as
    - Active, with a positive balance during the 12 months prior to the beginning of the observation window,
    - Not in default at the beginning of the observation window.
  - Default loans are defined as loans that are 90 or more days past due, bankrupt or charged-off.
- Default rate (DR) = 
$$\frac{\text{Active loans with at least one default}}{\text{Total active loans}}$$
- PD = 
$$1 - \sqrt{(1-DR_{2007})(1-DR_{2009})}$$

## VANTAGESCORE PD MAPS

- VantageScore PD Map observations
  - Based on **proposed** rule
  - Subject to revision, pending final rule



# VANTAGESCORE PROBABILITY OF DEFAULT MAPS: BANKCARD

Higher risk bankcard loans have a VantageScore of 622 or lower

Score Range	Default Range		Volume Range	
	Low	High	Low	High
641 - 650	14.3%	16.5%	18.8%	20.8%
631 - 640	16.8%	19.3%	16.7%	18.6%
<b>621 - 630</b>	<b>19.6%</b>	<b>22.6%</b>	<b>14.8%</b>	<b>16.5%</b>
611 - 620	23.0%	26.5%	12.8%	14.6%

Score at 20%

Volume at 20%

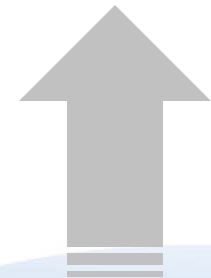
$$\left[ \frac{(22.6\% - 20\%)}{(22.6\% - 19.6\%)} \times (630 - 621) \right] + 621 = \mathbf{622}$$

**15.0%**

# VANTAGESCORE PD MAPS – REAL ESTATE

Consistent assessment of high risk loans across Credit Bureaus

	Score Range	Default Range		Volume Range		High Risk Loans	
		Low	High	Low	High	Score	Volume
CRC 1	641 - 650	18.4%	20.7%	18.8%	20.8%	<b>647</b>	<b>20.2%</b>
CRC 2	631 - 640	18.5%	21.0%	17.13%	19.0%	<b>636</b>	<b>18.3%</b>
CRC 3	641 - 650	19.3%	21.8%	18.9%	20.9%	<b>643</b>	<b>19.5%</b>



## VANTAGESCORE PD MAPS – AUTO, ‘OTHER’

Higher risk loan score cut-offs generally identified in the 590-650 range

	Score Range	Default Range		Volume Range	
		Low	High	Low	High
Auto	611 - 620	14.4%	16.4%	12.8%	14.6%
	601 - 610	16.6%	18.9%	11.1%	12.6%
	<b>591 - 600</b>	<b>19.2%</b>	<b>21.9%</b>	<b>9.5%</b>	<b>10.9%</b>
	581 - 590	22.2%	25.2%	8.0%	9.3%

Score: 594  
Volume: 9.9%

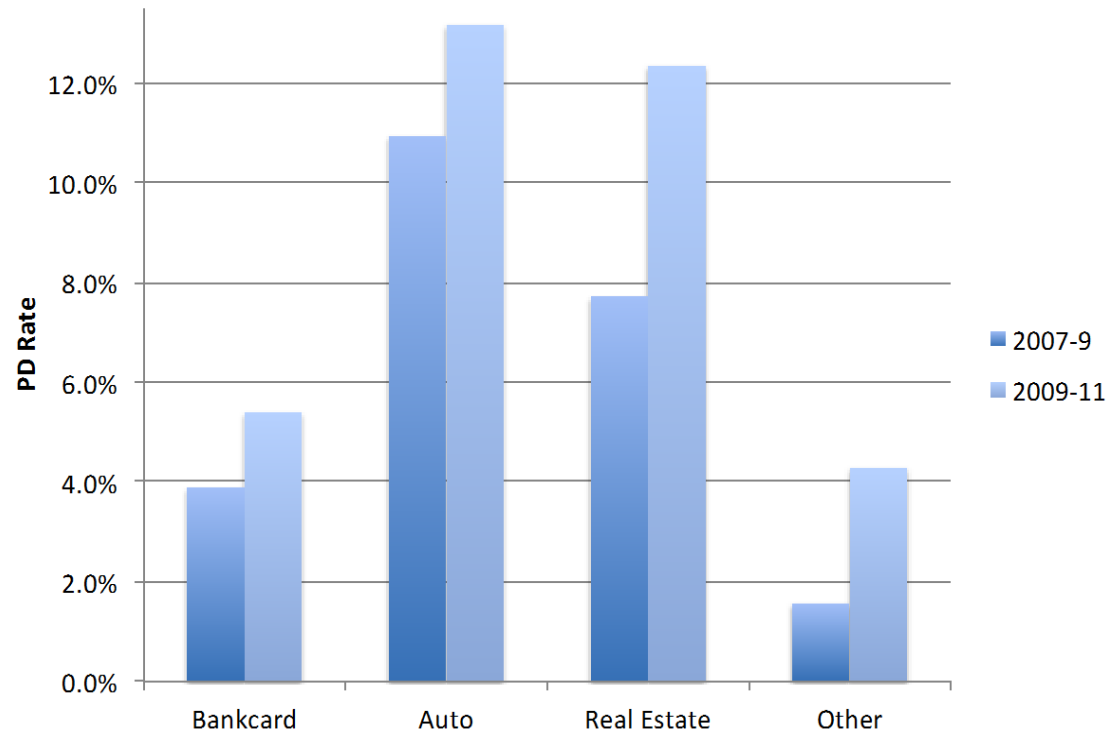
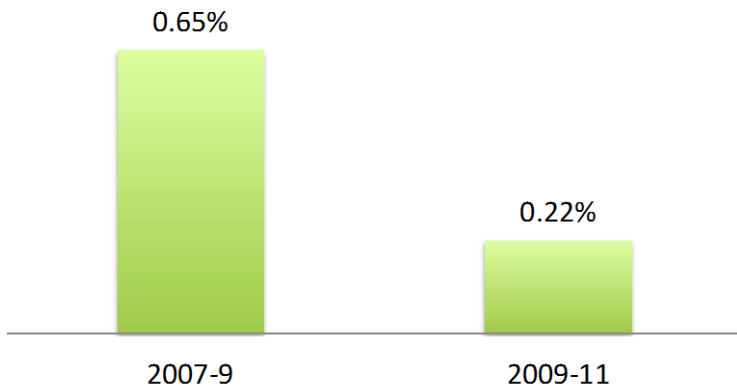
	Score Range	Default Range		Volume Range	
		Low	High	Low	High
Other	631 - 640	13.0%	15.1%	16.7%	18.6%
	621 - 630	15.4%	17.8%	14.8%	16.5%
	<b>611 - 620</b>	<b>18.1%</b>	<b>21.0%</b>	<b>12.8%</b>	<b>14.6%</b>
	601 - 610	21.3%	24.7%	11.1%	12.6%

Score: 617  
Volume: 14.0%

# VANTAGESCORE PD MAPS – UNSCOREABLES

Fewer unscorable consumers with PDs well below 20% threshold.

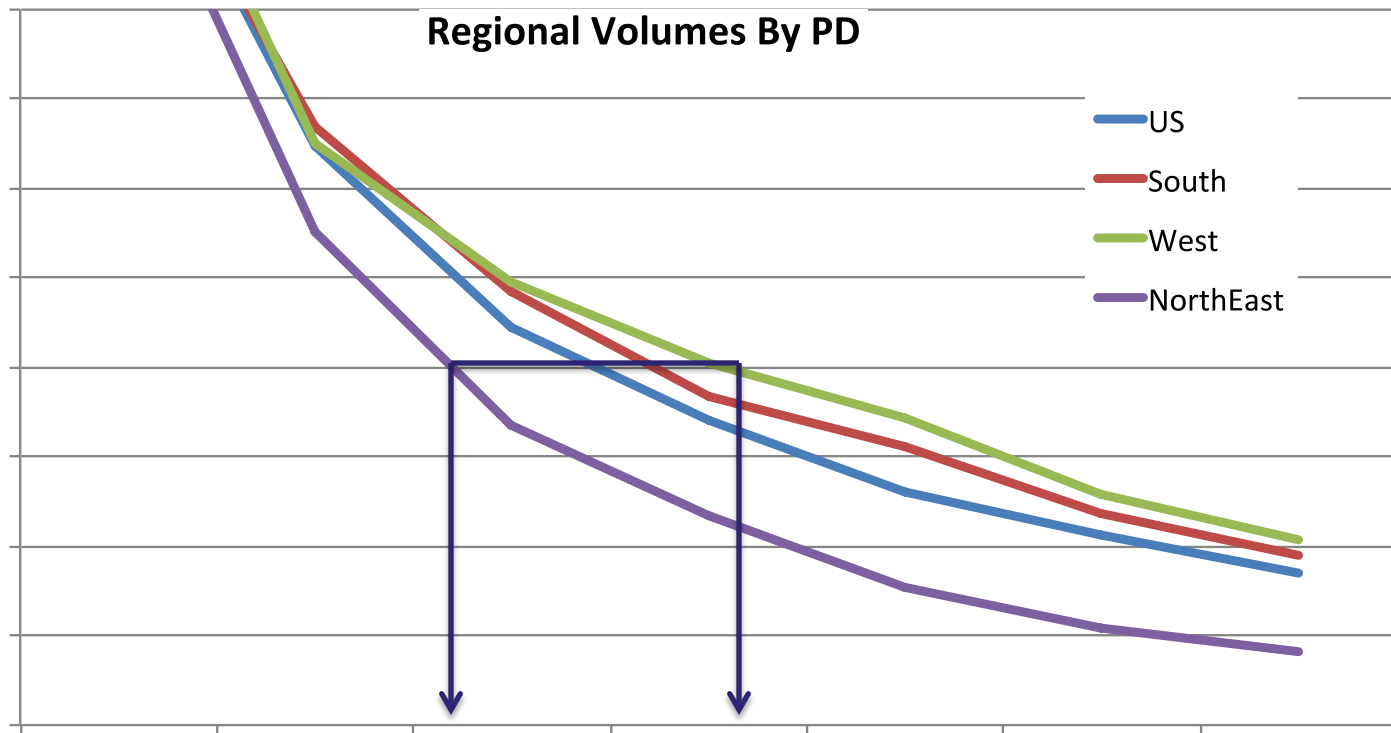
## % Unscorable\*



\*Of qualifying population

# VANTAGESCORE PD MAPS: CUSTOM OR GENERIC PD MAPS?

The volume at 20% PD rate may vary significantly given the portfolio composition



**Volume ranges from 8%-16%**

## OBTAINING THE PD MAPS

### **Contact Equifax, Experian or TransUnion for the appropriate PD Map**

- Available for generic credit scores
  - e.g. VantageScore, FICO, Bureau Scores
- Product-specific
  - Bankcard, Real estate, Auto and Other
- Population sample
  - National, Regional or Custom

## Q&A



THANK YOU FOR YOUR PARTICIPATION!