



Credit Scores: The gateway to credit and how the scoring landscape is changing

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Today, Consumers can receive many scores

VantageScore

- Newest model introduced March 2013
 - Range is 300-850
 - 3 models total in marketplace

FICO (Fair Isaac)

- Launched generic score model in 1989
- FICO®
 - Range is 300-850
 - 49 models in marketplace

Credit Reporting Companies (CRC)

- Each CRC has multiple products
 - Designed for each unique database
 - Score ranges vary

Other third-party developers

- CoreLogic, LexisNexis, L2C, Clarity, others
 - Score ranges vary

Industry based models

- Auto, credit card, mortgage

Custom Models

- Many large lenders create their own custom credit score models

VantageScore Quick Facts

- Introduced by the three major Credit Reporting Companies in 2006:
 - Equifax, Experian, TransUnion
- New models developed by independent company, VantageScore Solutions
- VantageScore is provided to both lenders and consumers by the CRCs
- Reflects consumer data contained in credit files present at the CRCs

Lenders now using VantageScore

Many of the nation's top lenders, including national and regional banking institutions, credit unions, mortgage companies and credit card issuers, use the VantageScore model.



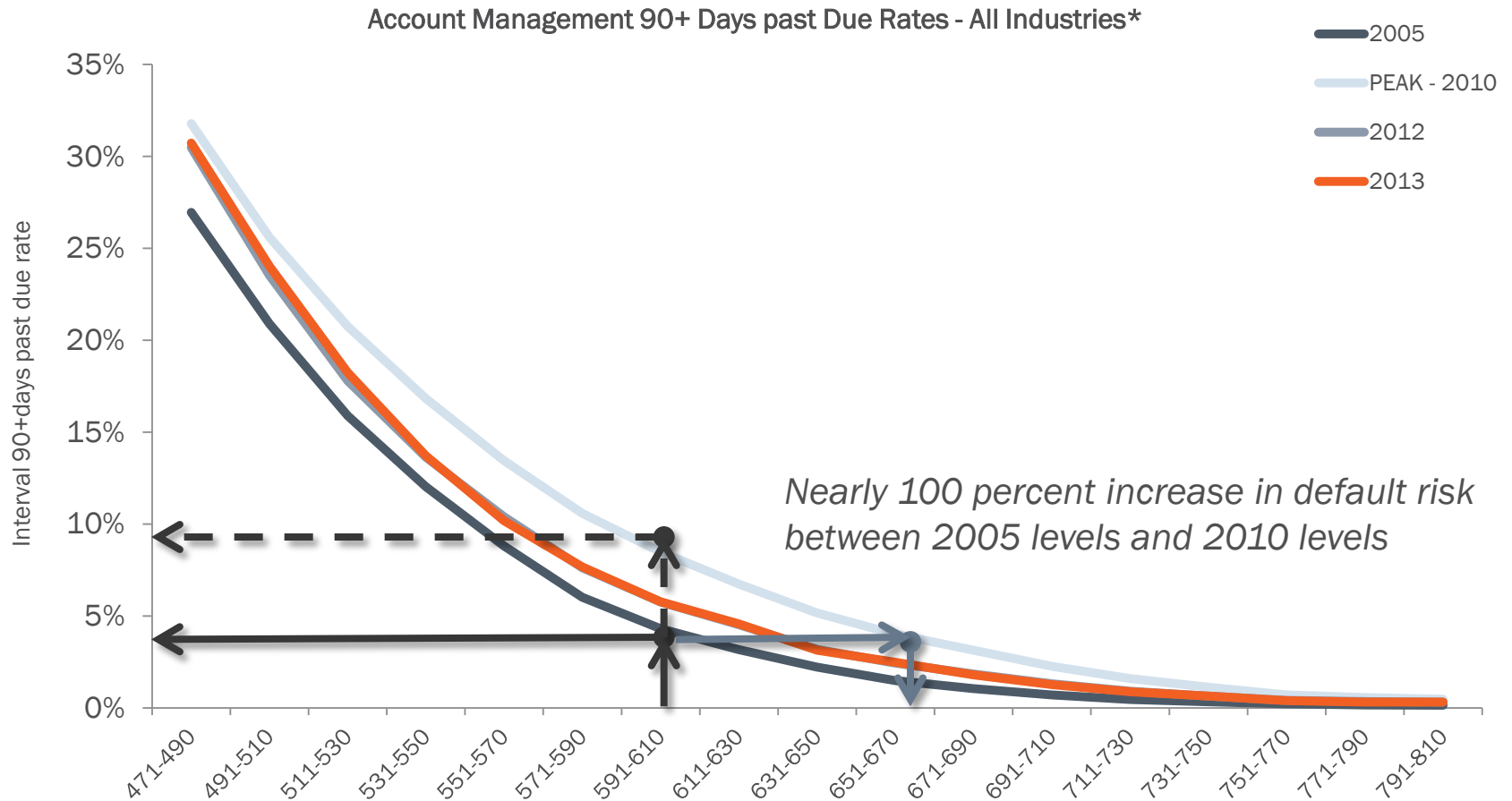
VantageScore is also embedded into all the major industry platform standards.

- MISMO; SFIG and AFS ABS Data Fields; CFPB-FHFA mortgage data base; FHFA's Common Securitization Platform
- Major vendors that provide the software necessary for lenders' systems to communicate with the credit bureaus' systems



Risk shift trends and how the interpretation of credit scores changes over time

Risk shifts over time

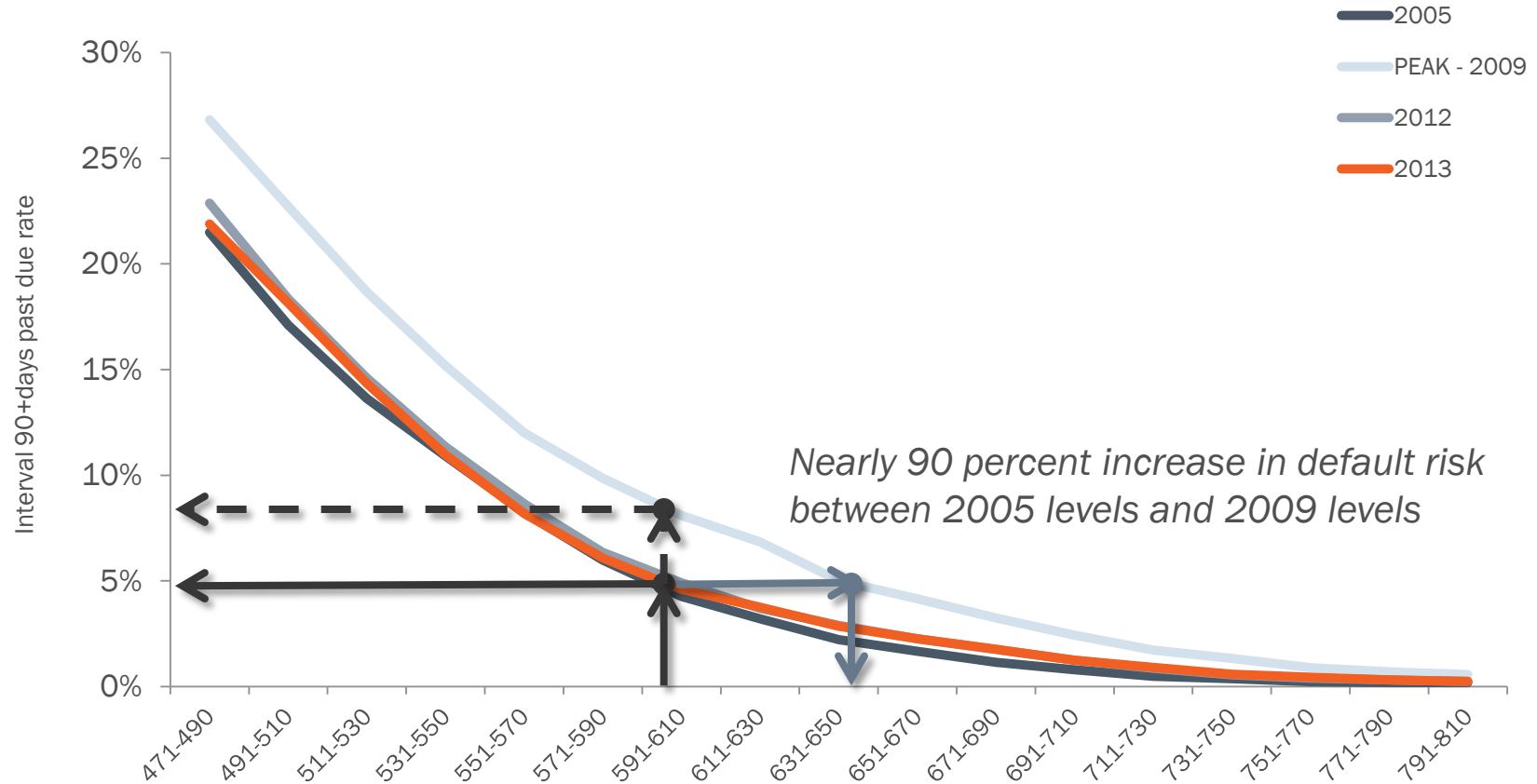


- Lenders using a 4.5% default strategy in 2005 would have set a cutoff of 600 for a VantageScore credit score (solid black arrow).
- In 2010, the same score cutoff would have resulted in an 8.5% default scenario (dashed black arrow).
- To maintain 4.5%, lenders would need to move the cutoff to VantageScore 660 (gray arrow).
- Default levels have dropped from their peak in 2010, with 2013 levels (orange line) unchanged from 2012 levels.

*All Industries where credit scores are mainly used. Results based on the scale used for the VantageScore 3.0 model where the full score range is 300-850.
Account management: accounts that are at least two years old at the time of performance measurement.

Risk shifts over time

Originations 90+ Days past Due Rates - All Industries*

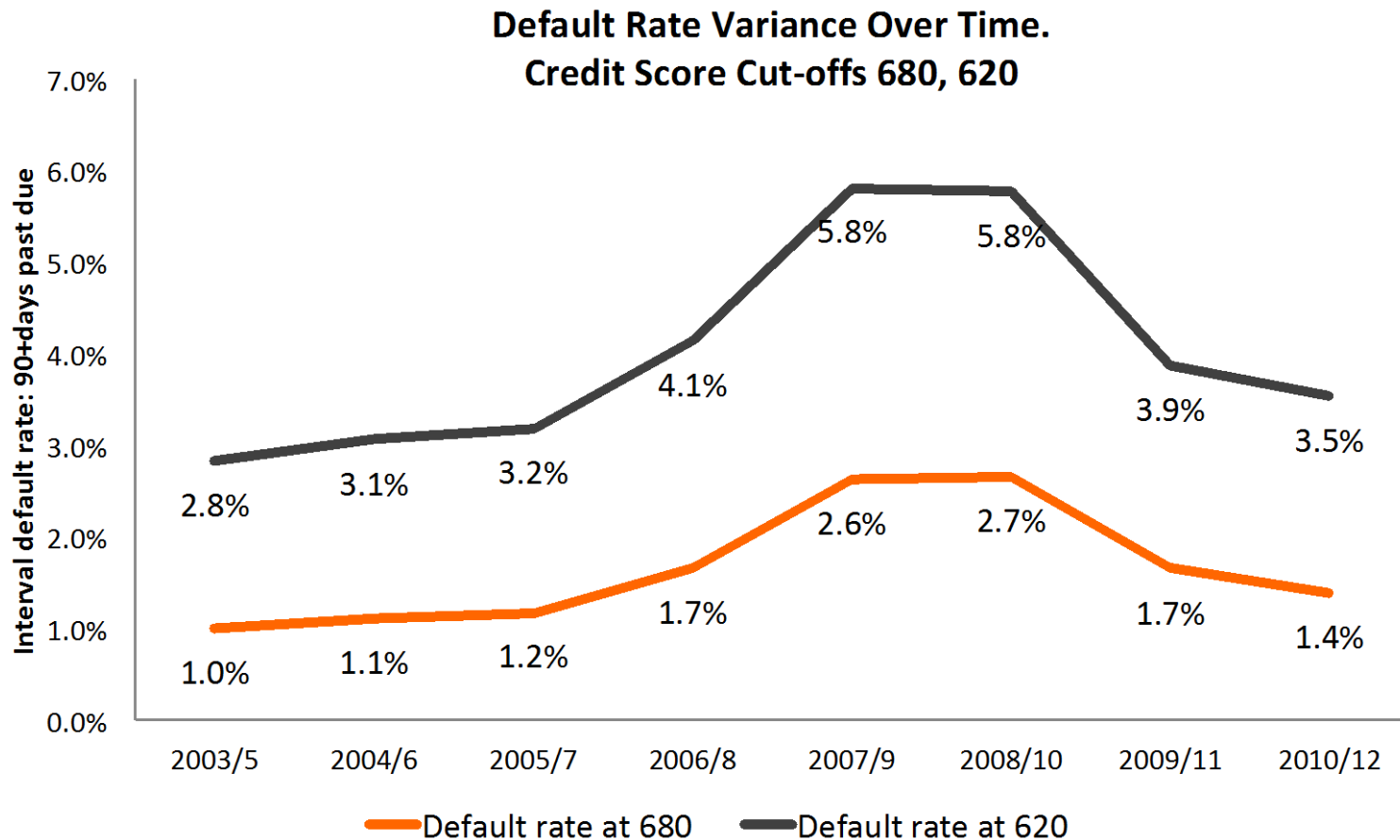


- Lenders using a 4.25% default strategy in 2005 would have set a cutoff of 600 for a VantageScore credit score (solid black arrow).
- In 2009, the same score cutoff would have resulted in an 8.1% default scenario (dashed black arrow).
- To maintain 4.25%, lenders would need to move the cutoff to VantageScore 660 (gray arrow).
- Default levels have dropped from their peak in 2009, with 2013 levels (orange line) virtually returning to 2005 levels.

*All Industries where credit scores are mainly used. Results based on the scale used for the VantageScore 3.0 model where the full score range is 300-850. Originations: accounts that were opened within the 3 months prior to the time of performance measurement.

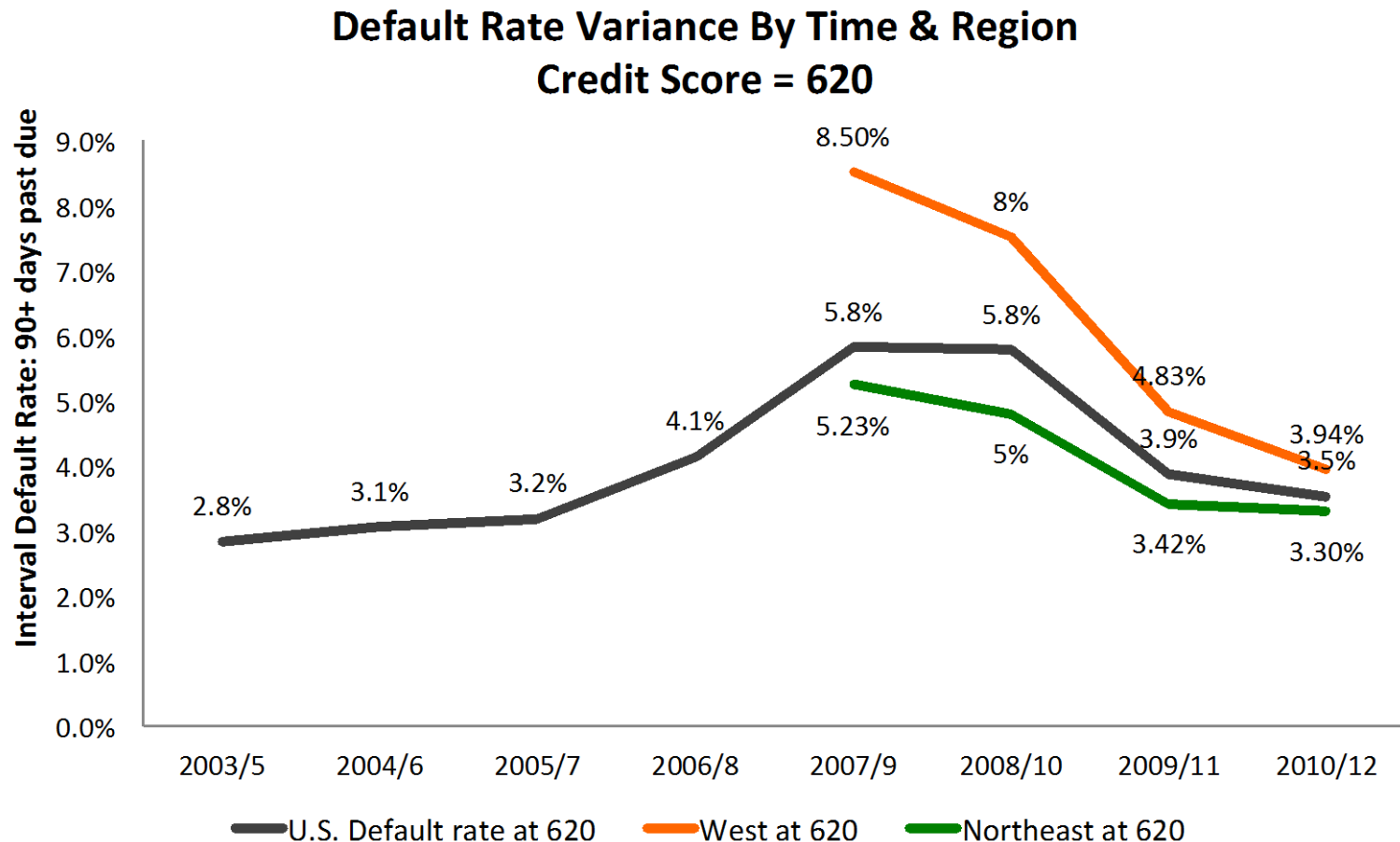
One size fits all may not fit anyone...

- Risk levels for a given credit score more than doubled during the recession



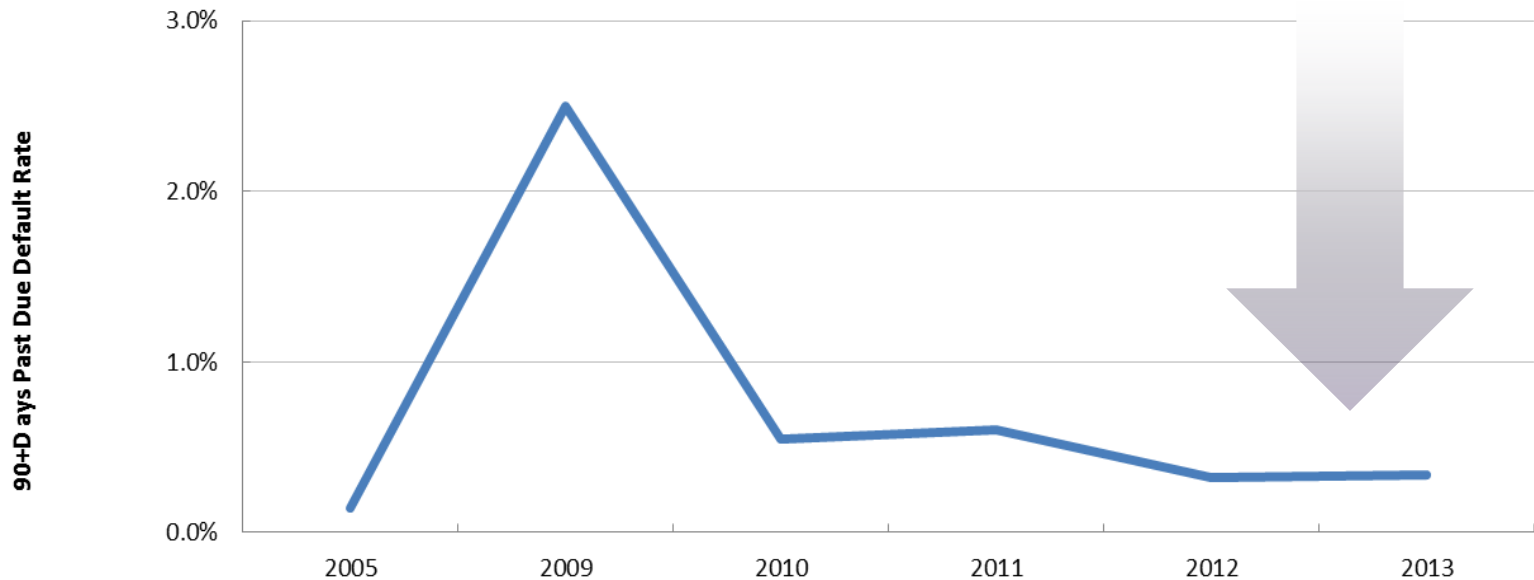
One size fits all may not fit anyone...

- Regionally-based lending at a given credit score reflected even higher risk levels



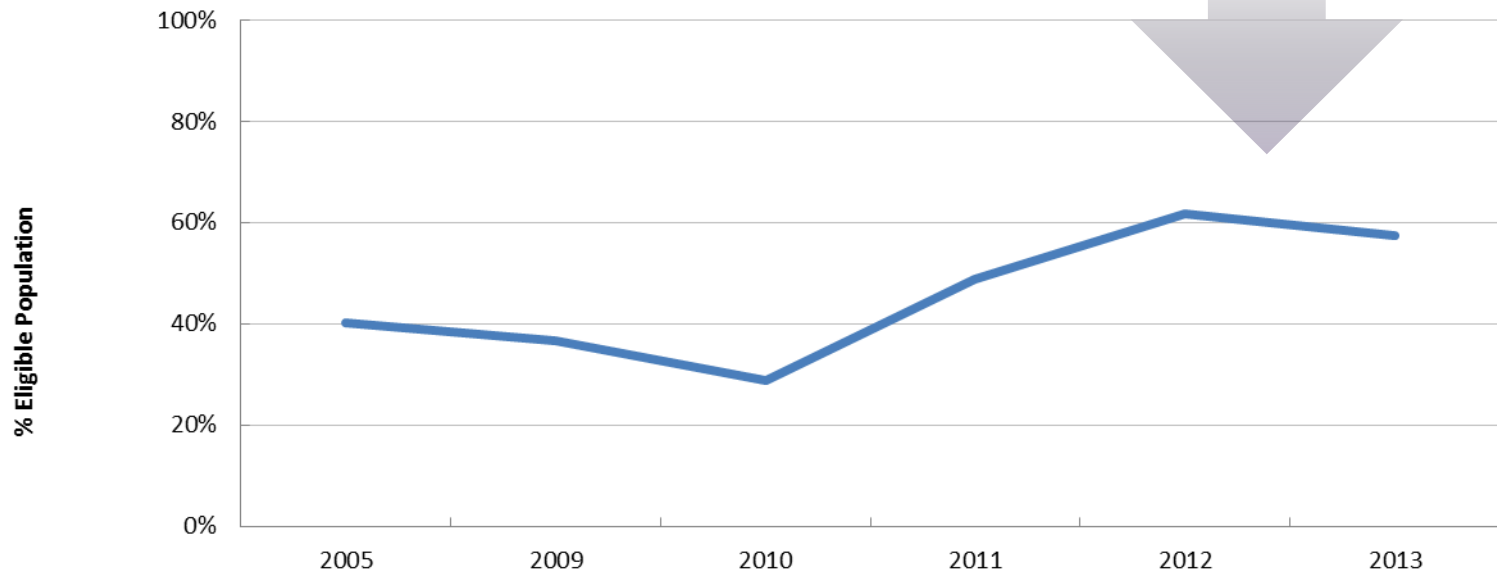
Credit Quality: Mortgage Originations

Probability of default for consumers with a score of 760 remains at low levels



Credit Quality: Mortgage Originations

Similar percentage of consumers continue to score as prime credit quality (760 or above)



Credit scores are the gateway to credit

Opening the Credit Box, Zandi/Parrott:

A 50 point reduction in credit score cut-offs equates to 12.5 million households.

Urban Institute: Average credit score for loans sold to the GSEs is currently 752. But 13 million people have credit scores between 580 and 680. And one in five individuals has a credit score of 640 or lower.



AND THERE ARE OTHER WAYS TO EXPAND THE UNIVERSE OF CREDIT WORTHY BORROWERS WITHOUT CHANGING ANY OTHER CREDIT CRITERIA THROUGH THE USE OF MORE INCLUSIVE SCORING MODELS.

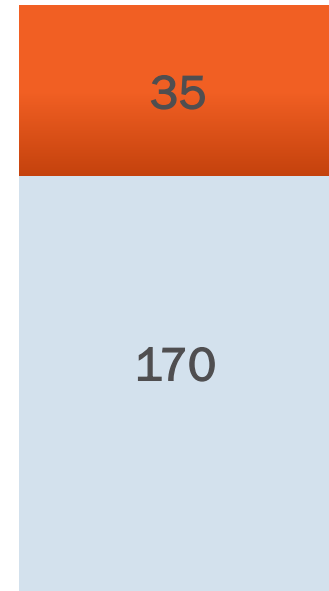
Universe expansion

VantageScore 3.0 scores 30-35 million more consumers over conventional models

- VantageScore 3.0
 - Infrequent credit
 - New entrant
 - No recent activity
 - No open trades

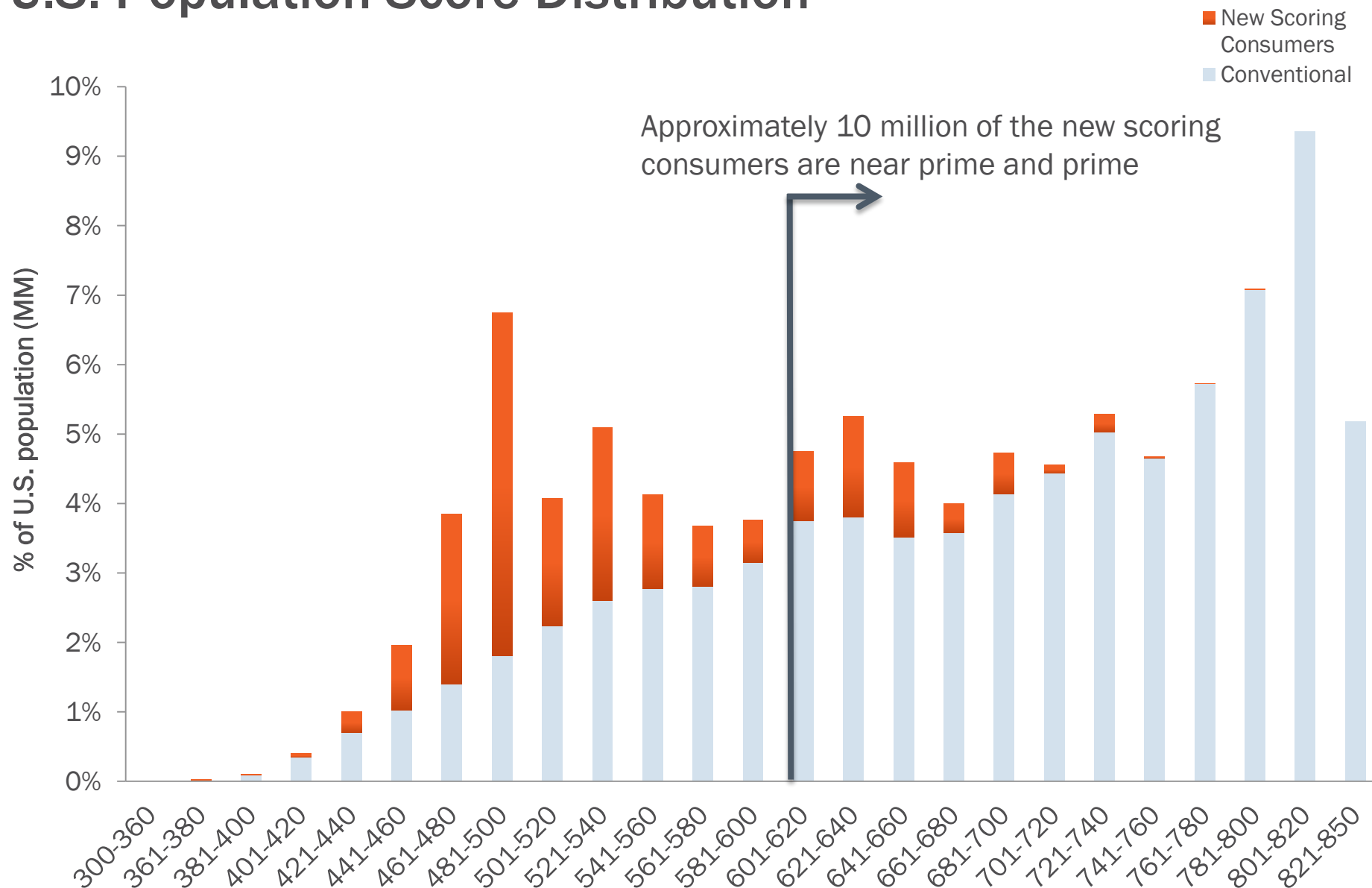
Scoreable Universe

■ Conventional Models ■ New Model



U.S. Consumers (MM)

U.S. Population Score Distribution



Traits of the new scoring consumers

New Entrants

- Less than 6 months of credit history

Infrequent Credit User

- Sparse users of credit, at least 6 months of no activity

No Recent Activity

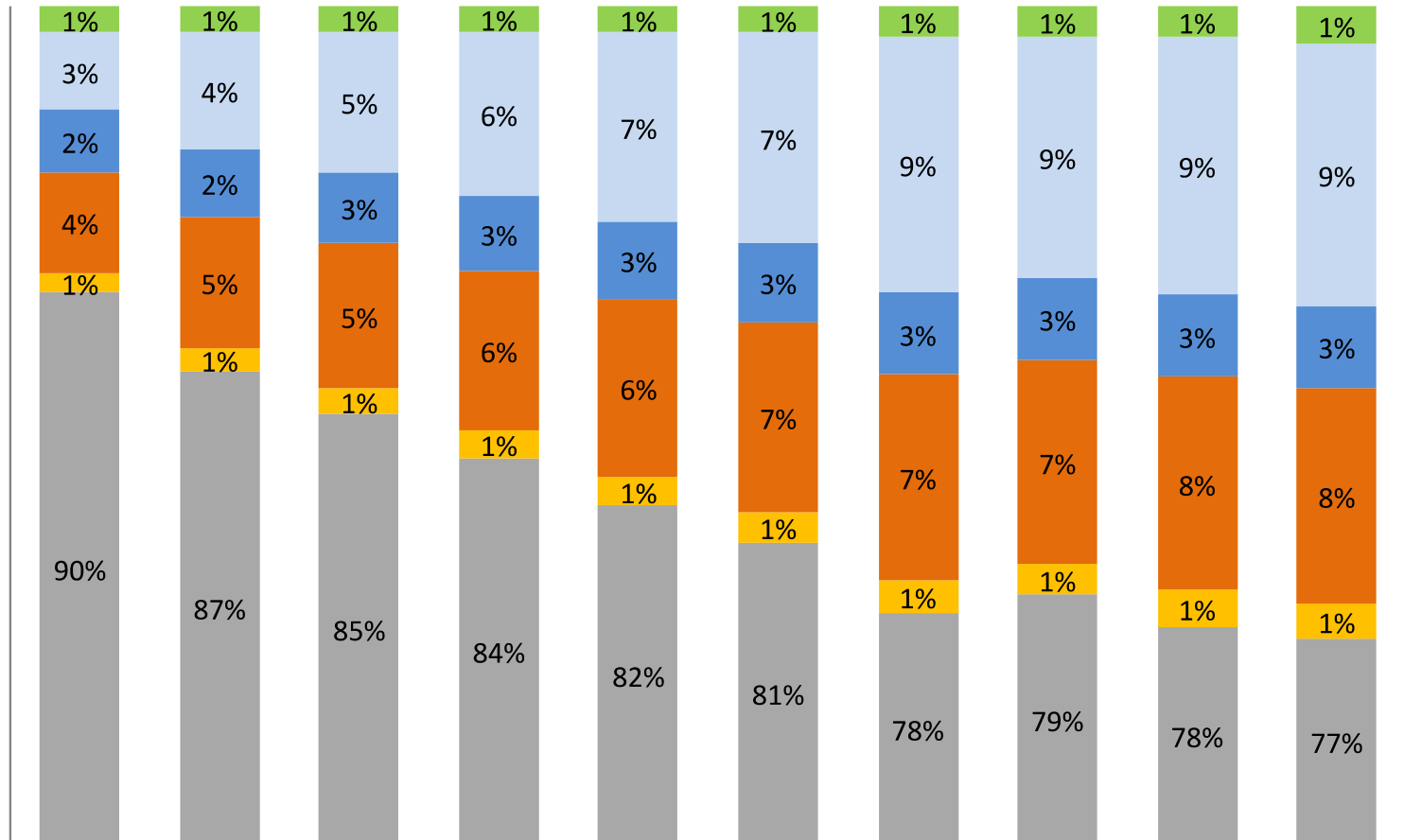
- At least 24 months since activity

No Open Trades

- Only closed trades, public records and collections information available



Newer credit score models can score these consumers, avoiding bias exposure



Groupings of zip codes by concentration of minority population

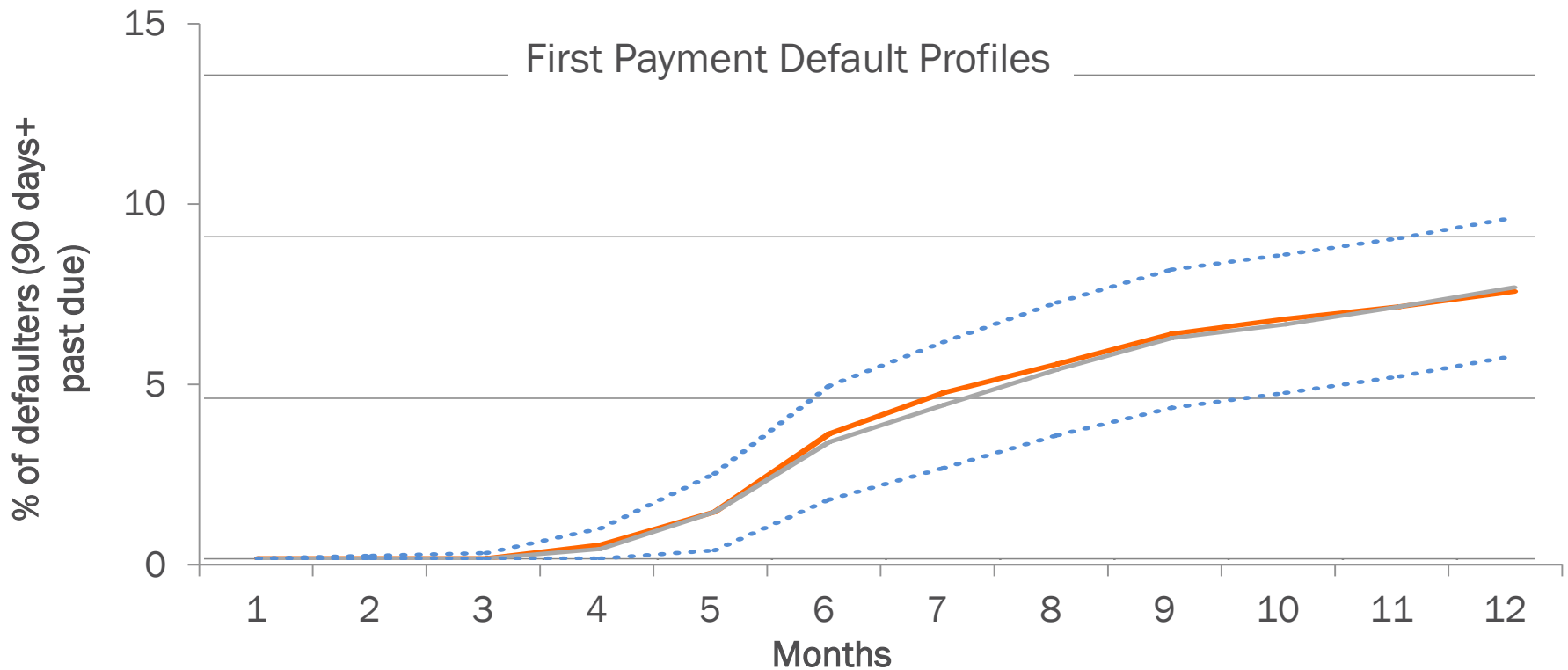
redit User No Open Trades No Score

Scoring marginal populations

Does a conventionally scored consumer exhibit the same risk profile as a new scoring consumer?

- New scoring consumers default with a similar first payment default profile as conventionally scoring consumers

— New scores
— Conventional
- - - 95% Lower Interval
- - - 95% Upper Interval

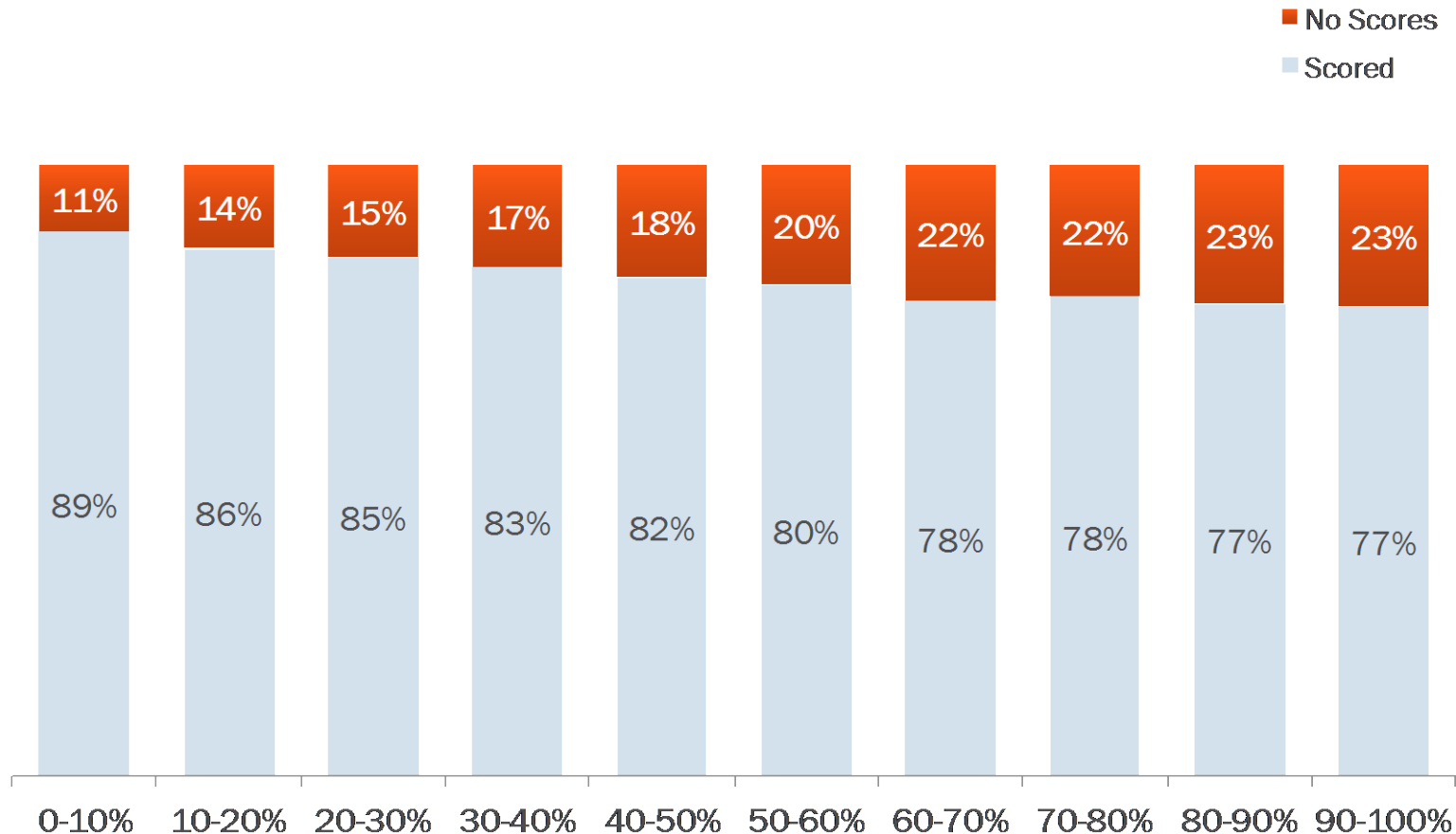


Fair lending implications

- What if the underlying model design causes consumers of a particular sub-population to actually become unscorable?
- As a result of the recession, many consumers have reduced their credit usage in terms of number of open accounts and frequency of usage
 - If the frequency of usage falls below a threshold level necessary to be scored by certain models then the consumer becomes unscorable.

Real World Example

- For higher concentration regions, 20%-23% of African American consumers are unscorable by conventional scoring models



Groupings of zip codes by concentration of minority population

The Facts

- A total of 30-35 million consumers, typically not scored by conventional models, can now be assigned an effective probability of default.
 - 10 million of these consumers have scores of 600 and above
- The risk levels of the new scoring consumers are aligned with consumers exhibiting conventional credit management behaviors.
- From a fair lending perspective, 9.5 million of the newly scored consumers are African American or Hispanic
 - 2.7 million of these consumers have a credit score above 600

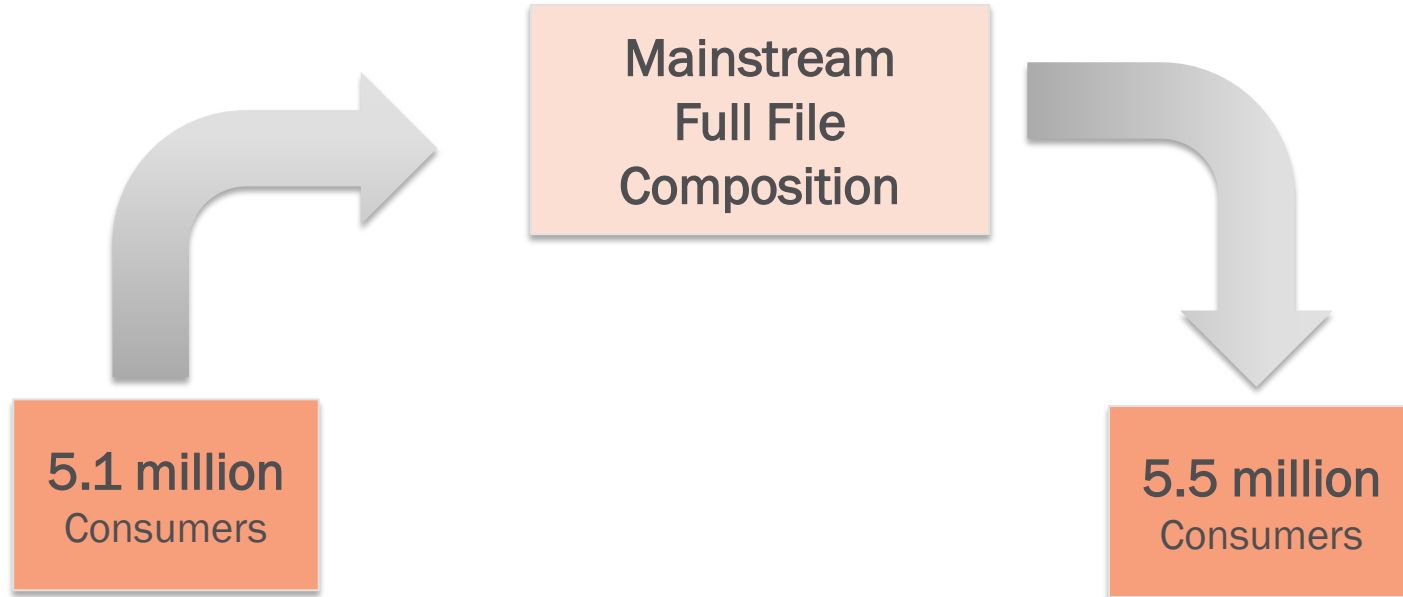
Approximately 5.1 million people move from being thin file to full file and 5.5 million move out of the full file, mainstream population and back into the thin file population.

Gain 5.1 million consumers

- Open accounts
- More intense usage

Lose 5.5 million consumers

- Account closures
- More sparse use of credit



Annualized Consumer Migration



Emerging trend: Scores On Statements

Scores on statements

CFPB desires that consumers check their report

February 17, 2014: CFPB Calls on Top Credit Card Companies to Make Credit Scores Available to Consumers:

...CFPB Director Cordray recently sent letters to the nation's top credit card companies urging them to follow suit by making credit scores and related content freely available to their customers. A regularly available credit score may prompt more Americans to review their credit standing and pull their free annual credit report at www.annualcreditreport.com.

Scores on statements

2014 VantageScore Solutions/Consumer Federation of America study on consumer knowledge of credit scoring:

- Majority of consumers who obtained their credit scores also obtained their free credit report
- Those who have obtained their credit reports answered more questions correctly than those who had not obtained their credit reports.

Scores on statements

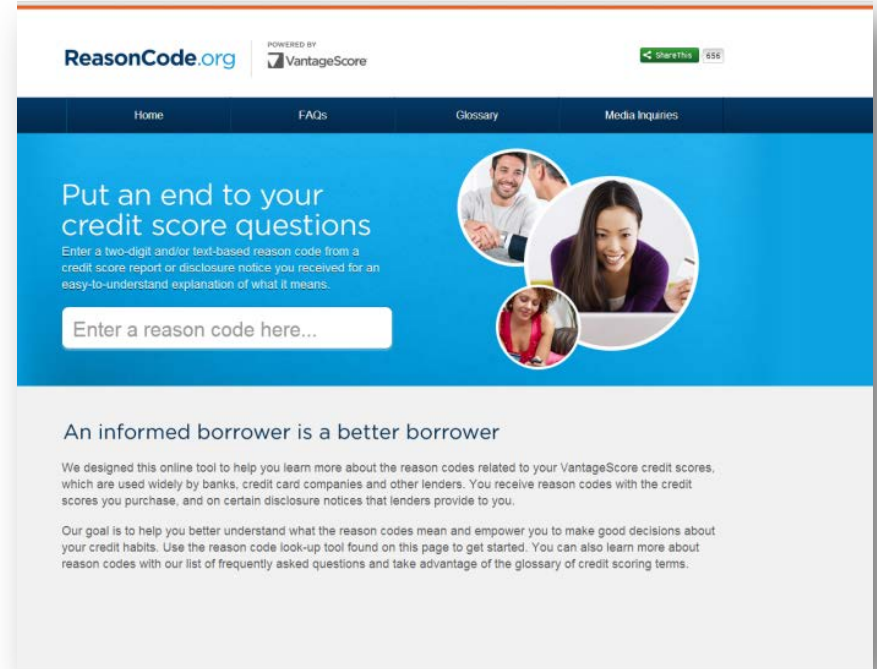
The Risks...

- May cause confusion from score variances
 - Timing differences
 - Multiple lenders
 - Different brands and versions
- Lender inability to satisfy questions regarding credit file and score calculation

Scores on statements

May achieve the CFPB goal provided there is sufficient customer support surrounding the scores

Reasoncode.org: Developed such that the website can be easily 'white-labeled' and ported to a lender's own customer-facing website.





Models are changing as well

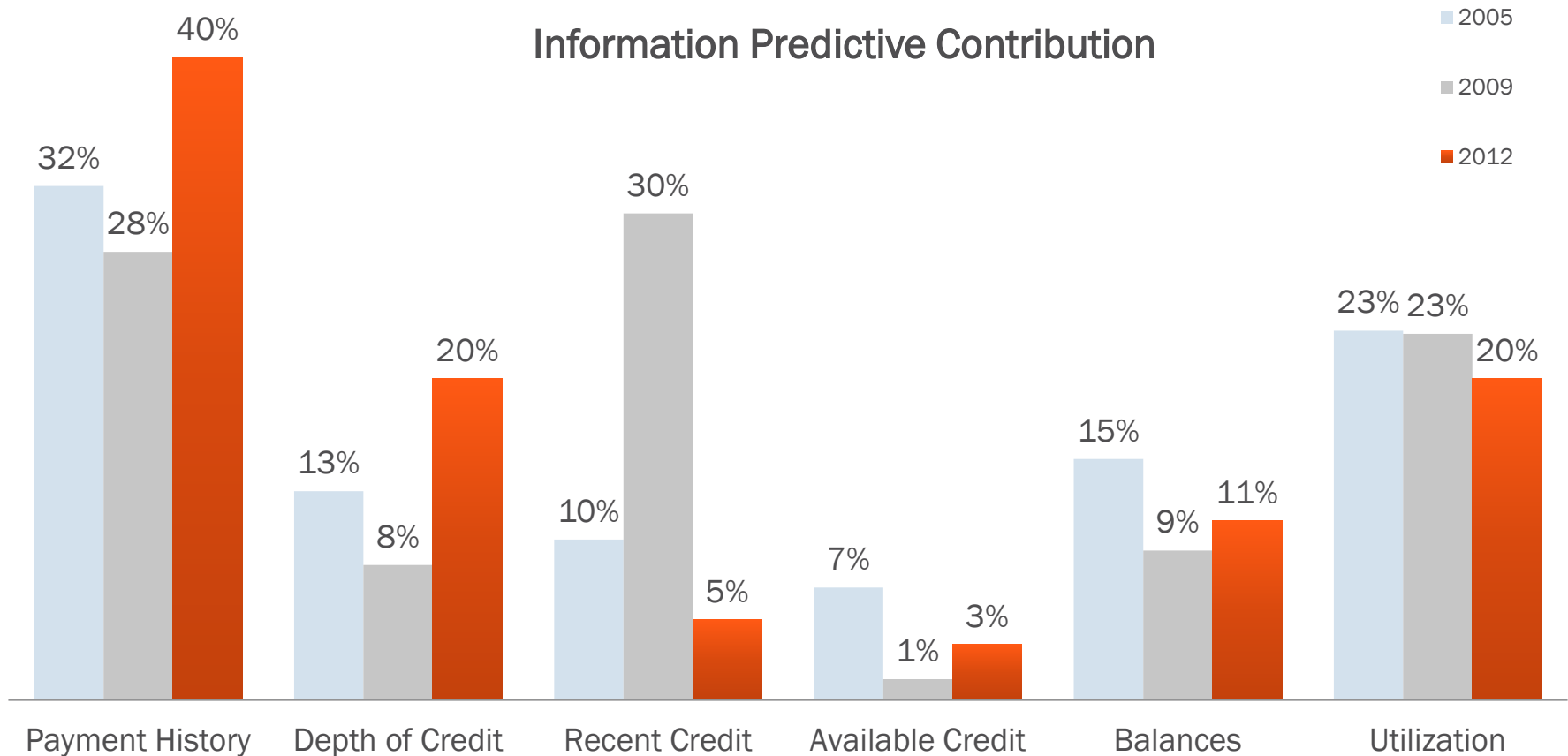
Consumer friendly benefits

- Natural disaster
 - Temporary exclusion of trade-level delinquent behavior while retaining positive payment data.
- Paid-off mortgages
 - High credit quality consumers recognized for successfully paid-off behavior.
- Paid third-party collection accounts
 - Paid collections with third-party collection agencies not considered in VantageScore 3.0
 - Only agency collection accounts that are unpaid are a factor impacting a consumer's score
 - All industries
 - Includes paid medical collections
 - All balance amounts
- Medical debt not considered when provided by a medical facility

Even fine old wine can eventually turn to vinegar...

In a post recession era, overall payment history is 25% more important in terms of predictive contribution than pre-recession models.

Information Predictive Contribution



Fast Facts

- The three national credit reporting agencies, Equifax, Experian and TransUnion, maintain over 200 million credit files, each. - CFPB
- Roughly 25 million free credit reports are claimed every year despite over 600 million available to claim. – CDIA
- 1 billion credit reports are provided to lenders and consumers annually. - CDIA
- Data in reports is updated 4.5 million times...PER MONTH. - CDIA

Fast Facts

- Credit files contain over 1.3 billion accounts or other trade lines with 58% of them being credit card accounts. - CFPB
- Over 13,000 companies update information on consumer credit files each month. - CDIA
- 76% of the information contained in credit files is provided by only 100 companies. - CFPB
- 11% (31,000) consumer complaints were filed with the CFPB between July 21, 2011 and February 1, 2014 related to credit reporting/scoring...less than nine percent were scoring related.
- CFPB

Myths and Misconceptions

Myth: Credit scores are used by employers.

Fact: Credit scores are not used by employers, however in some states employers may use information in a prospective employee's credit report. Employers use a special form of credit reports that hide social security numbers, account numbers, and other personal information that is not pertinent or allowable in the employment screening process.

Myth: Only lower-income consumers are considered sub-prime.

Fact: It is up to lenders to delineate which consumers they consider, prime, subprime, etc. These delineations represent a consumer's risk profile within a lender's overall portfolio – not income level. Many lower income consumers are considered prime and super prime by lenders, while many wealthy consumers may be considered sub-prime as well.

Myths and Misconceptions

Myth: Medical debt is a factor in my VantageScore credit score.

Fact: Medical debts are not considered in any format if reported directly from a medical facility. When a medical debt has entered a third-party collection agency, the VantageScore model will consider it because it is classified as a collections account. Paid medical collections will not factor into your VantageScore credit score.

Myth: Race and age are factors in a credit score.

Fact: One of the most important misperceptions about credit scores is what information a credit scoring model does NOT use. Credit scoring models do not consider: *Race, color, religion, nationality, sex, marital status, age, salary, occupation, title, employer, employment history, where you live or where you shop.*

Questions & Answers



Barrett Burns



Barrett Burns is president and CEO of VantageScore Solutions. Over the course of a career spanning more than three decades, he has held national and international risk and credit management plus executive leadership positions at several of the nation's most prestigious financial services companies including U.S. Trust, Ford Motor Credit, Bank One and Citibank. Burns serves on the board of the Mortgage Bankers Association, the Homeownership Preservation Foundation, the Corporate Board of Governors for the National Association of Hispanic Real Estate Professionals and the Asian Real Estate Association of America's National Advisory Council. He is also a member of the National Community Reinvestment Coalition's Mortgage Finance Collaborative Council. Frequently asked to provide thought leadership on issues regarding consumer credit and risk, he testified before the Subcommittee on Financial Institutions & Consumer Credit, in the United States House of Representatives, during a 2010 hearing entitled "Keeping Score on Credit Scores: An Overview of Credit Scores, Credit Reports and Their Impact on Consumers" and served on the Federal Reserve Board's Consumer Advisory Council until June 2011.

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