

Understanding Shifts in Consumer Credit Behavior

What it Means for the Economy in 2023

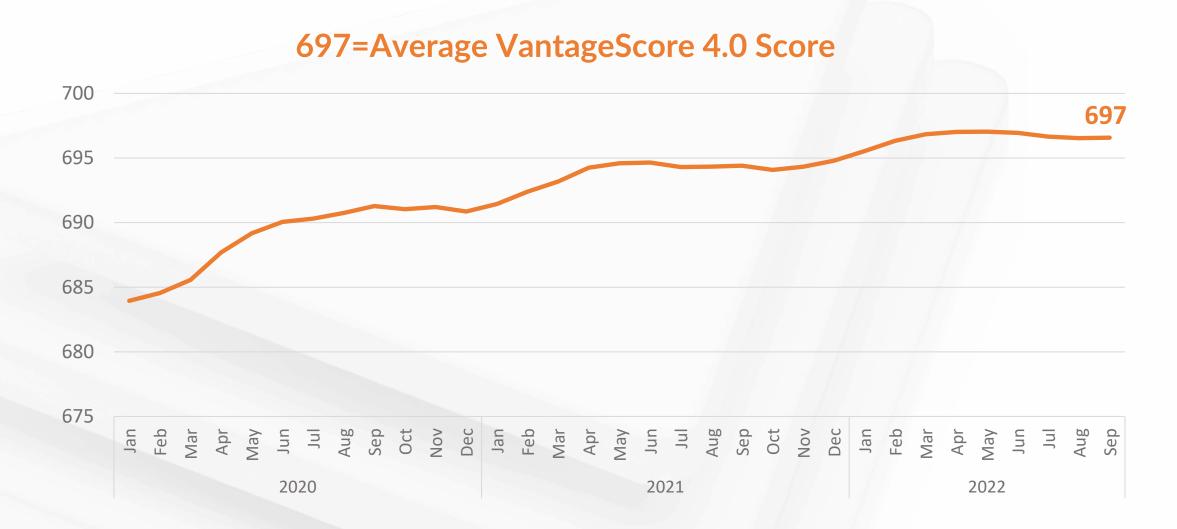
Silvio Tavares President & CEO www.VantageScore.com

Fourth Workshop on Payments, Lending, and Innovations in Consumer Finance *October 27, 2022*

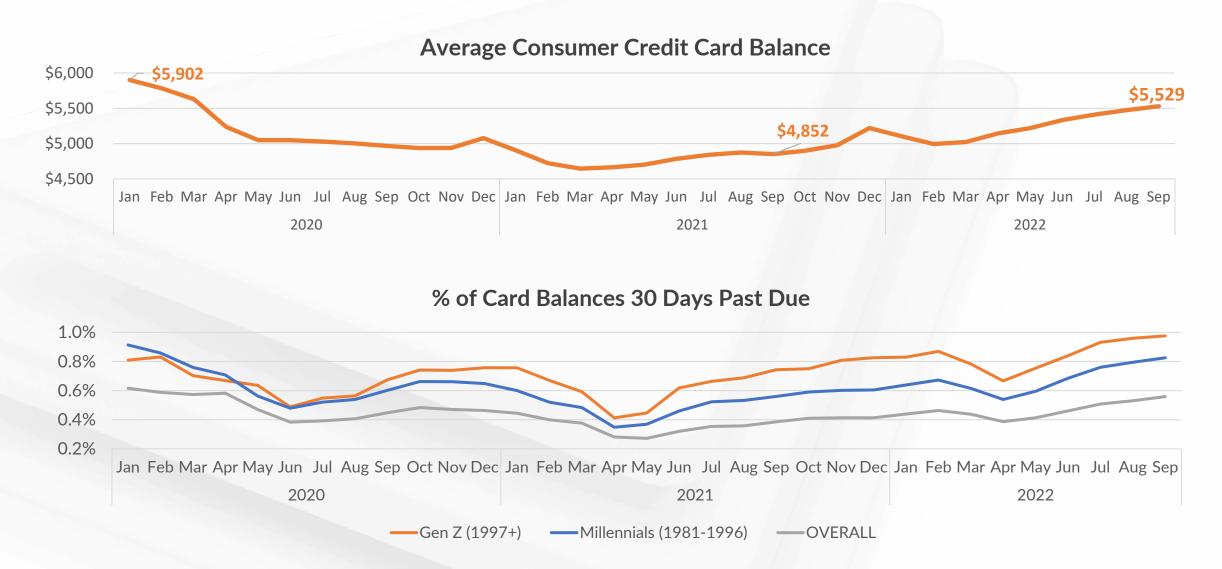
What Is Happening Now?

Consumer Credit in September 2022

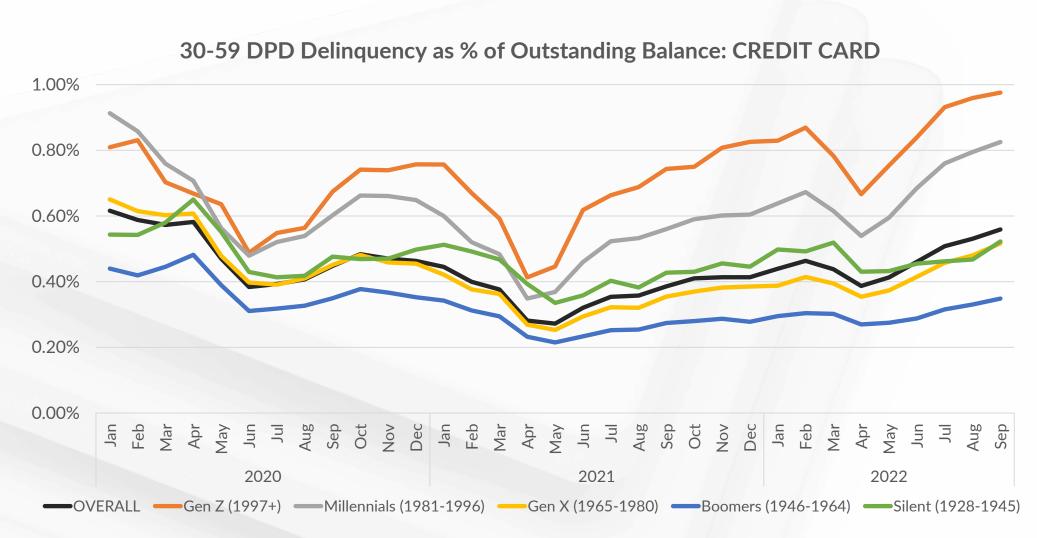
Overall, VantageScores Credit Scores are Healthy



But Consumers Are Adding Leverage / Delinquencies Remain Low But on the Rise

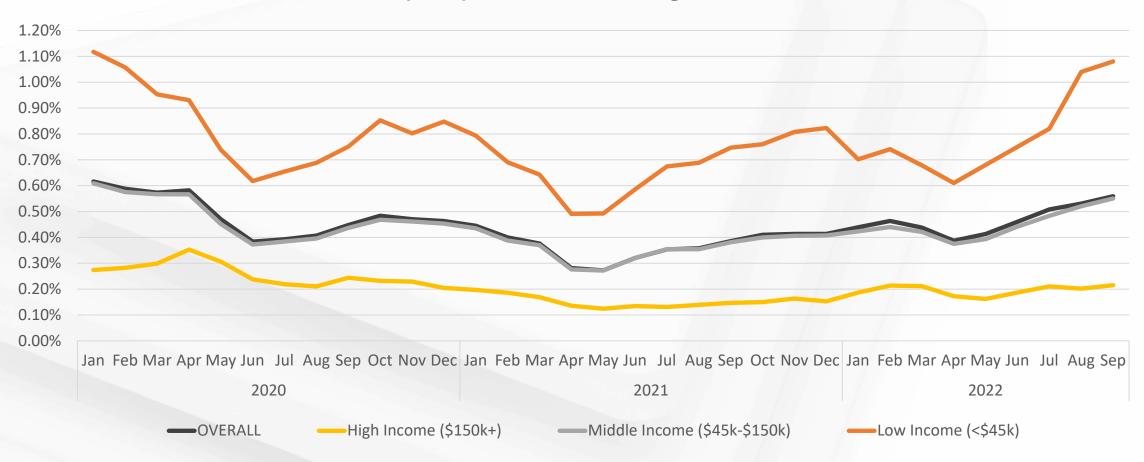


Early credit card delinquencies are higher for younger age consumers.



Early credit card delinquencies are trending upwards across all income groups, approaching pre-pandemic levels.





Why is this happening?



Consumers Adding Leverage – Inflation is outpacing wage gains and consumers are using credit (especially credit cards) to fill the gap.



Prices, especially autos, are higher making monthly obligations tougher to meet. Shrinking "denominator," derived from total number of vehicles currently being financed.



Savings build up during the pandemic have been depleted.



If rates rise, the cost to service debt increases which could also impact consumers' ability to remain current on credit obligations.

COMING SOON:

More Transparency For **Uncertain Credit Markets**

Building on our monthly Consumer Credit Insights reports with a deeper dive into the state of the market:

- Average VantageScore credit scores
- Delinquency rates
 - by Product
 - By Past Due band
- Balance & Utilization rates
- Newly Opened Account rates

Together with context and insights from the VantageScore analytics team

VantageScore

CreditGauge

As the economy faces headwinds with rising interest rates and stubbornly high inflation, consumers are under stress and showing signs of strain in managing their credit obligations.



Utilization/



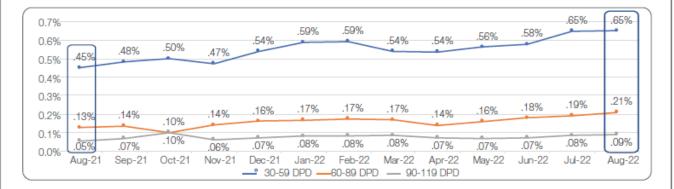
📤 Increase 🛛 🔫 Decrease 📁 No Change

Balance-to-Loan Ratio:

Total % Newly Opened Accounts on File:

Overall Delinquency Trends as a % of Outstanding Balance

- Year-over-year, delinquency rates have increased across all Days Past Due (DPD) categories.
- In addition, delinquency rates in August 2022, rose slightly when compared to July 2022.



VantageScore Trusted by over 3,000 leading banks and financial institutions and 9 of top 10 Banks — Growing at approx. 20% per year







VantageScore: Hypergrowth in Consumer Finance

- FAST GROWING: Consumer
 Finance companies are
 VantageScore's fastest growth
 category
- 18 PERCENT VantageScore credit score use increased to 14.5BN scores or +18% compared to the 2019 (+97% for installment loans)
- 14.5 BILLION VantageScore credit scores used in a recent 12-month timeframe



Things Will Never Be The Same — 3 Permanent Changes



1. Financial Inclusion

The Key NewDriver for PaymentsGrowth andCredit Growth



2. Big Tech -

Becomes the Key Driver of Consumer Credit Usage



3. Alternative Data -

Consumers Provide
Alternative Data to
Deliver Open New
Sources of Credit and
Payments Volume

Change 1 – Financial Inclusion Drives Credit Growth

Shift: U.S. Demographics Shifting Rapidly



GROWTH TRENDS: Black, Hispanic, and Asian populations in the United States increased 11.6%, 20% and 29.3% (respectively) since 2010 while the white population grew by only 4.3%. — U.S. Census, 2017



CALIFORNIA LEADS: California is already "majority minority" and Latinos surpassed whites as the state's single largest ethnic group in 2014



MAJORITY-MINORITY: A majority of the U.S. population will be nonwhite by the year 2050 — U.S. Census, 2017 — Public Policy Institute of California, 2022



IMMIGRATION: More than 40 million people living in the U.S. were born in another country — Pew Research Center, 2016

4.8%

The Big Mortgage Opportunity: FHFA to Allow Competition in Credit Scoring by VantageScore

- FHFA TO ALLOW VANTAGESCORE TO COMPETE —
 FHFA has responded to Congress passing a law contained in Section 310 of the 2018 Economic Growth, Regulatory Relief, and Consumer Protection Act requiring credit score model competition
- APPLICATION COMPLETE All four phases of FHFA's application process are complete
- FOUR POTENTIAL SCENARIOS:
 - Option 1: maintaining the single score requirement for each borrower on every loan
 - Option 2: requiring multiple scores
 - Option 3: allowing lenders to deliver loans with any approved score
 - Option 4: the "Waterfall" approach allowing a primary and secondary score

National Mortgage News

'Lender Choice' of Credit Scoring Urged at FHFA Hearing

- March 2, 2022

"We urge the FHFA to adopt Option 3," said Silvio Tavares, President and CEO at VantageScore. "It's the best and only option that enables true competition and that will directly enable more creditworthy consumers to have access to mortgage loans."

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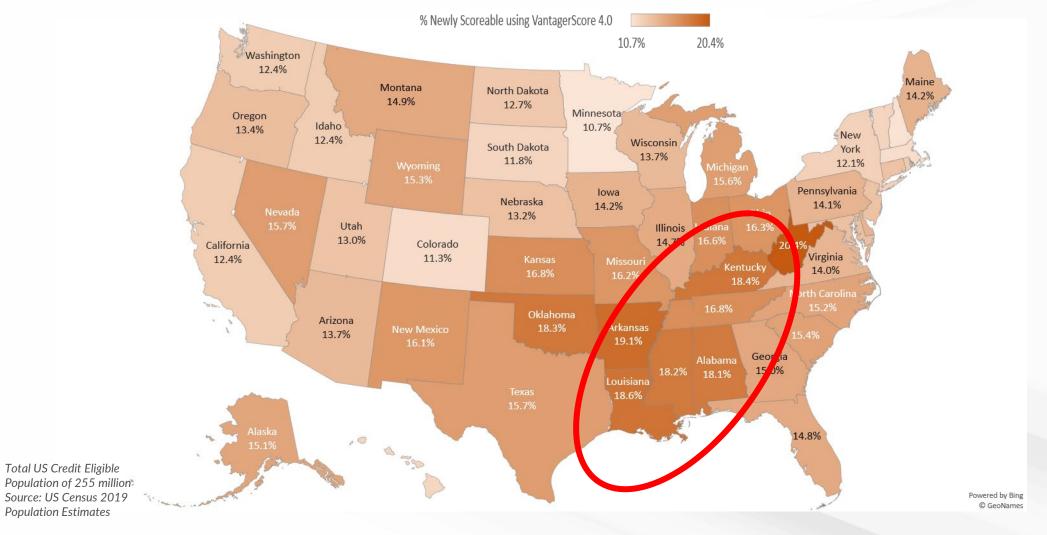
Mortgages Sold to Fannie, Freddie Should Use More Than FICO Scores, Regulator Says

FHFA says lenders should also gauge borrowers using VantageScore



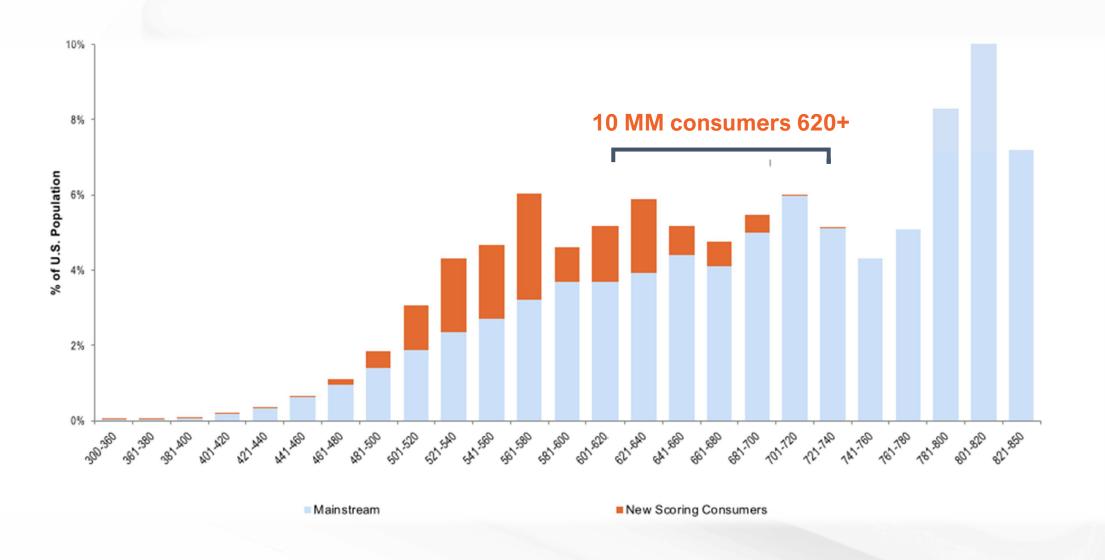
Consumer advocates and some lenders pushed for a change to credit score requirements, saying it would allow more people to get approved for mortgages.

Not just inner cities – conventional credit scores ignore MILLIONS in rural America, especially in the Appalachia region





Prime Opportunity: A quarter of the newly scored have scores of 620 and higher



Prime Missed Opportunity: Financial Inclusion

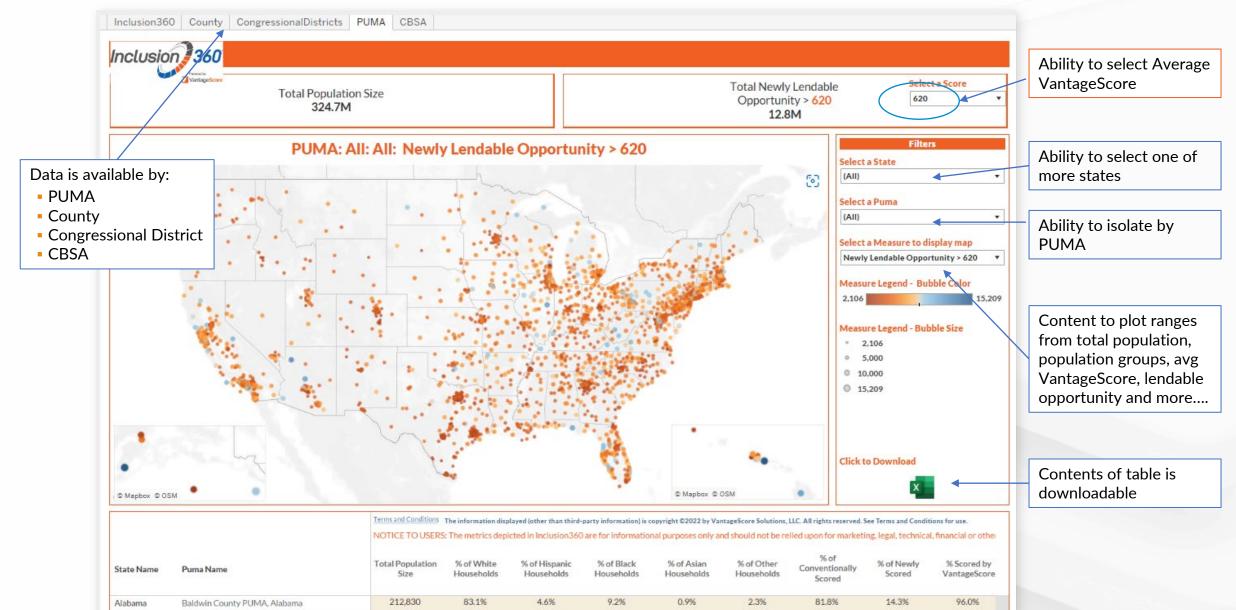
	Newly Scoreable	Above 620
African American and Hispanic	10.7 million	3 million
Asian	1.4 million	< 1 million
Native American	< 1 million	< 1 million

- Only 78% of African Americans and Hispanics are conventionally scoreable
 - VantageScore provides access to mainstream credit for these consumers
- Consumer Finance companies can expand their portfolios and grow their businesses safely and soundly AND provide financial inclusion opportunities



New Analytics Tools: Inclusion360 powered by VantageScore™

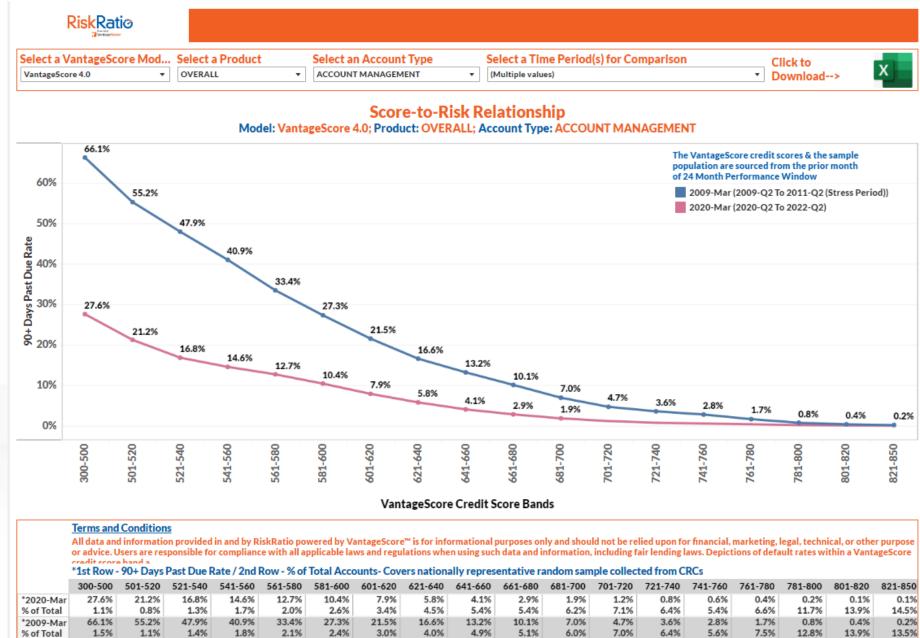
Inclusion360 is an open access interactive data platform that provides unprecedented and granular, localized information to target



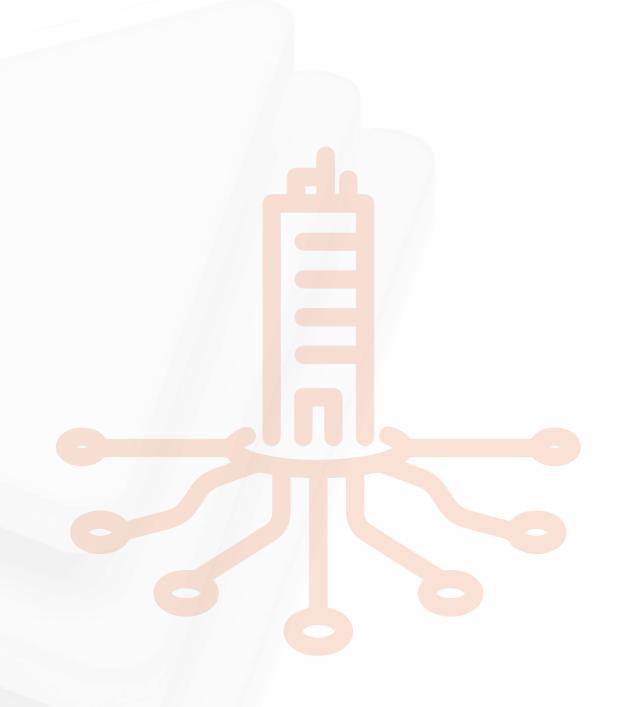
New Analytics Tools: RiskRatio powered by VantageScore™

VantageScore 20-point bands

- 15 year time sequence
- The % of default risk for each time period selected
- Data for Credit Card, Auto, Mortgage, etc.



Change 2 – Big Tech



Forbes

PERSONAL FINANCE

This Week In Credit Card News: Apple Pay Overtakes Mastercard; Most Online Shoppers Make Mobile Purchases

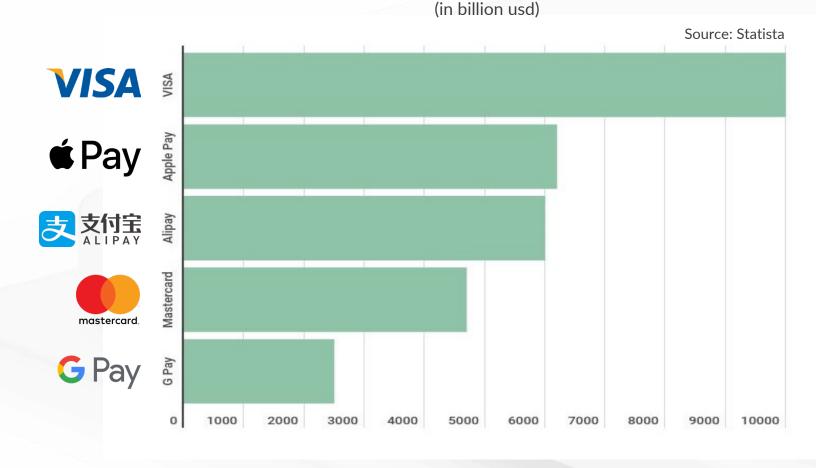




Shift: The Rise of Big Tech in Payments and Credit

Digital Payment Catch up to Credit Card Giants

While COVID-19 led the way towards larger mobile payment volume, the trend is here to stay.



Change 3 – Alternative Data



Shift: The use of alternative data and credit scoring

66 The agencies recognize that use of alternative data may improve the speed and accuracy of credit decisions and may help firms evaluate the creditworthiness of consumers who currently may not obtain credit in the mainstream credit system...These innovations reflect the continuing evolution of automated underwriting and credit score modeling, offering the potential to lower the cost of credit and increase access to credit."

> Interagency Statement on the Use of Alternative Data in Credit Underwriting, The Board of Governors of the Federal Reserve System, the Consumer Financial Protection Bureau, the Federal Deposit Insurance Corporation, the National Credit Union Administration and the Office of the Comptroller of the Currency, December 3, 2019,











More than 96 percent of American households have bank or prepaid accounts, and account records are increasingly easy to access electronically....

> "The predictiveness of the cash-flow scores and attributes was generally at least as strong as the traditional credit scores and credit bureau attributes studied. The results suggest that cashflow variables and scores can provide meaningful predictive power among populations and products similar to those studied where traditional credit history is not available or reliable."

> The Use of Cash-Flow Data in Underwriting Credit: Empirical Research Findings, FinRegLabs, July 2019.



New Credit Data Trends

LOAN TYPE

ISSUE

ACTION STEP

Student Loans	Buy Now Pay Later (BNPL)	Medical Debt
Reporting changes for loans in deferment	CRCs have recently an- nounced plans to improve data around BNPL	Changes to reporting of third-party medical collections
Analyze impact, share data and develop insights for future models	Assess data availability and optimize future models	Removal of all medical collection account information from our most recently introduced models

New data sets will help card issuers innovate and successfully manage economic volatility



Alternative data: Data not commonly found in the national credit reporting files

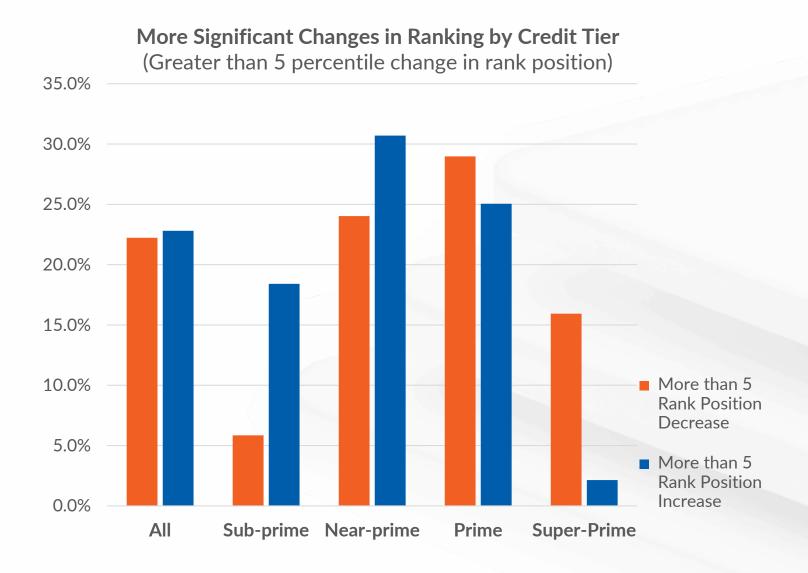


Trended data: Credit data that examines a borrower's behavior over time instead of a snapshot in time



Consumer permissioned data: Data that empowers consumers to contribute information to increase predictive strength of an application decision

Use of bank data results in score shifts for many consumers



- Consumers in lower credit tiers are more likely to see a score increase than a decrease when CPD is added
- Approval odds increase for consumers in Subprime and Near-Prime tiers when CPD bank data is added

The Future is Even Better Understanding Creditworthiness



Ideal credit decisioning would incorporate more insight into income, assets and cashflow



VantageScore 4+ Overview

WHAT IS IT?



VantageScore 4+ Real time decisioning with cashflow adjusted credit score adjustment from consumers DDA bank account.

WHY USE IT?



CPD Bank Data: Lenders have already begun incorporating this data and have seen significant benefits.



Expanded Target Markets: Incorporating bank data will help provide a much more accurate assessment of these thin file customers while increasing addressable markets and improving risk assessment of potential customers.



Time to Market: This is an early opportunity to evaluate the impact of including bank data with no heavy technological lift needed. VantageScore will handle the heavy lifting of integrations and conducting the analysis.



Preparing for What's Next in 2023?



Economic Pressures will Slow Loan Origination — Credit usage will continue to increase towards pre-pandemic levels and then likely halt; credit card lines will be reduced and utilization rates will rise.



Greater competition from Big Tech who are increasingly the largest embedded networks in the payment/retail echo system



By Focusing on Inclusion, lenders can discover new markets and be prepared for a permanent demographic shift



New Data Sets, Smarter Tools can provide better risk insights and inclusive lending strategies



The "S" in ESG — Banks and Issuers will bring new ABS and RMBS portfolios to market that are more financially inclusive to respond to both investor and regulator demands

Thank You!

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