An Inconvenient Truth: Pricing Without Credit Is Possible and Problematic

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MarketWatch

“A pandemic paradox: Americans’ credit scores continue to rise as economy struggles — here’s why”

February 16th, 2021

Forbes ADVISOR

“Washington State Bans Use of Credit for Insurance Rates…”

April 27th, 2021

THE WALL STREET JOURNAL.

“Insurance Group to Scrutinize Rate Guidelines for Racial Bias”

July 23rd, 2021

Consumer hardship has been multi-faceted and unevenly felt. An auto insurance rate plan provides many lenses to evaluate this hardship

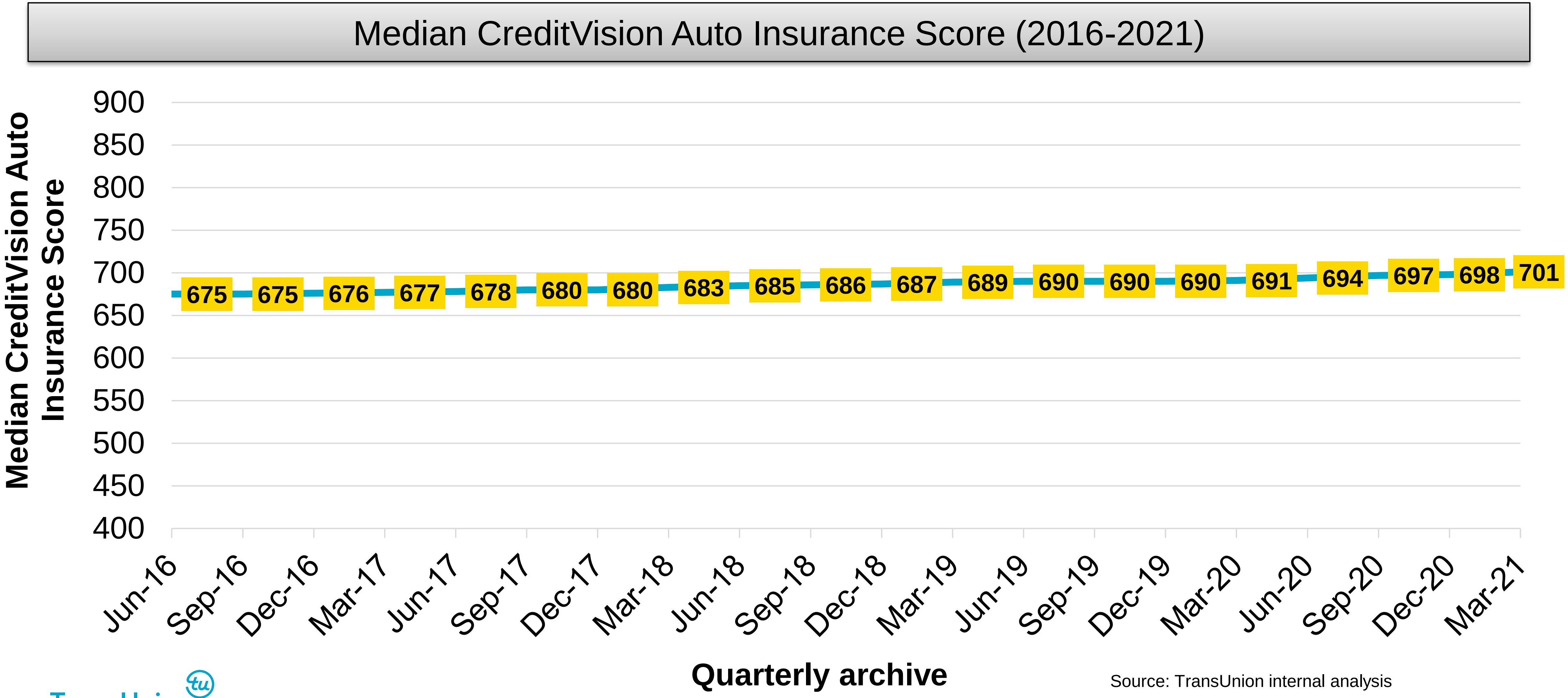
Credit-based insurance scores

Homeownership status

Prior lapse in coverage

Coverage selection and limits

Despite economic volatility, insurance scores have shown stability with continued steady marginal improvement



Source: TransUnion internal analysis

What we'll cover today:

- Credit-based insurance scores have helped to expand the availability and affordability of personal auto insurance
- Credit-based insurance scores help insurers maintain rate stability and/or potentially lower rates, especially for segments we are most trying to protect in today's economy
- Potential substitute rating variables for credit-based insurance scores may result in a less transparent and inefficient experience for consumers
- The industry must focus on maximizing fairness throughout its operations

Today, credit-based insurance scores* are widely used by the personal property and casualty insurance industry, but that was not always the case

1990s
CBIS introduced to the insurance industry

Before the introduction of CBIS

- Polarized market with limited product offerings and prices: non-standard and standard
- Carriers lacked new tools to refine pricing and expand their services to new markets and direct channel

- CBIS leveraged consumer report information:
  - Nearly ubiquitous and regularly updated
  - Actuarially sound and easily incorporated into rating plans
  - Consumer protections, disclosure and dispute resolution processes

Today

- Multiple generations of CBIS have been developed – each more predictive than the last
- Expanded coverage offering and a greater range of prices
- Reduced reliance on residual markets

*Credit-based insurance scores may be referred to as CBIS

Credit-based insurance scores help facilitate fairer insurance decisions and greater accessibility for consumers…

…but, what happens to a modern rating plan when credit-based insurance scoring is removed?

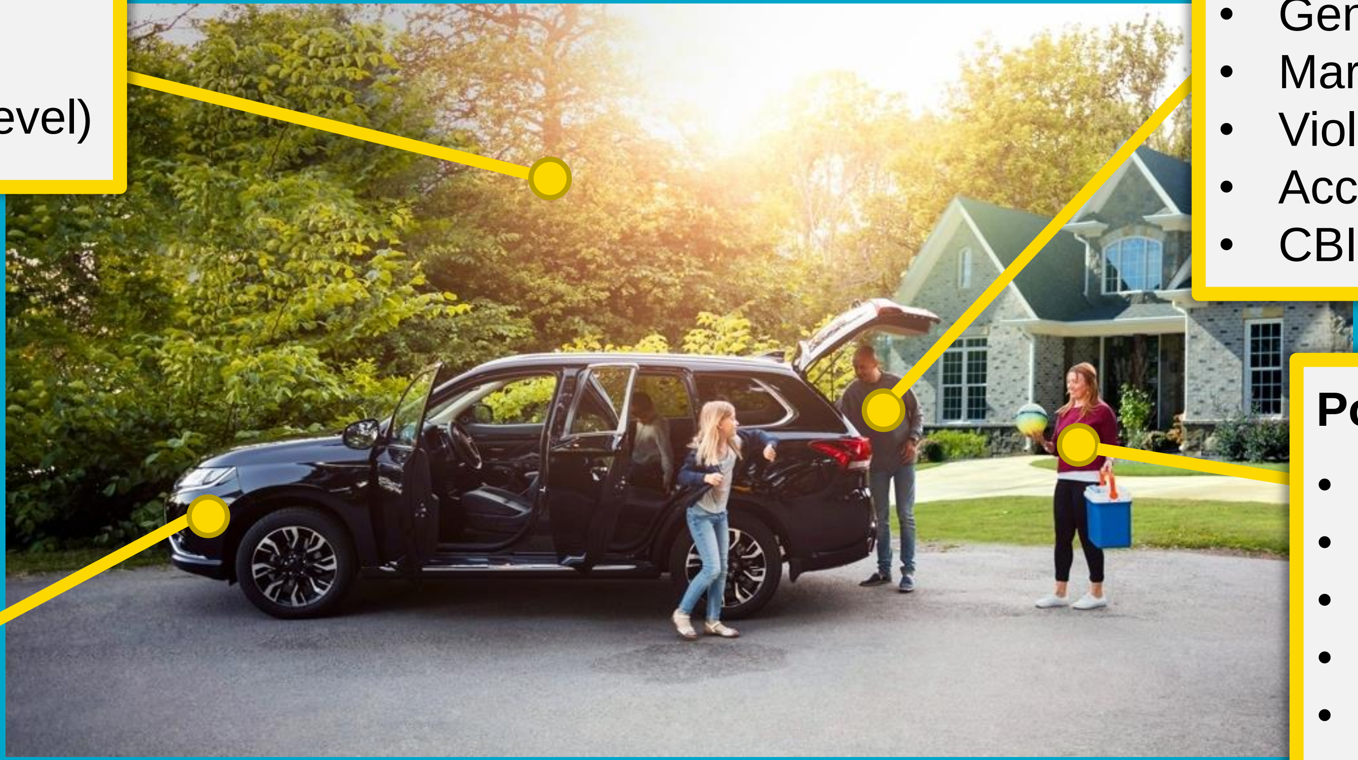
Using a sample of 7 million insurance policies from 2015-2019, we built a modern rating model with credit-based insurance scores

Location Attributes

- State
- Territory (zip code level)

Driver Attributes

- Age
- Gender
- Marital Status
- Violation History
- Accident History
- CBIS



Vehicle Attributes

- Vehicle age
- Vehicle use
- Symbols
- Mileage

Policy Attributes

- Number of drivers
- Number of vehicles
- Limits (current and prior)
- Deductibles
- Prior Lapse
- Coverage

Source: TransUnion Performance Analytics Database

We removed credit-based insurance scores from the rating model, refit the remaining variables, and analyzed the result using two views

What happens to other rating variables on an individual level?

- What role do they play in the model now?
- How do their indicated weights shift?

What happens on a multivariate level?

- Performed off-balance to reach 0% overall rate change
- Analyzed overall rate impact across rating variables and consumer risk segments

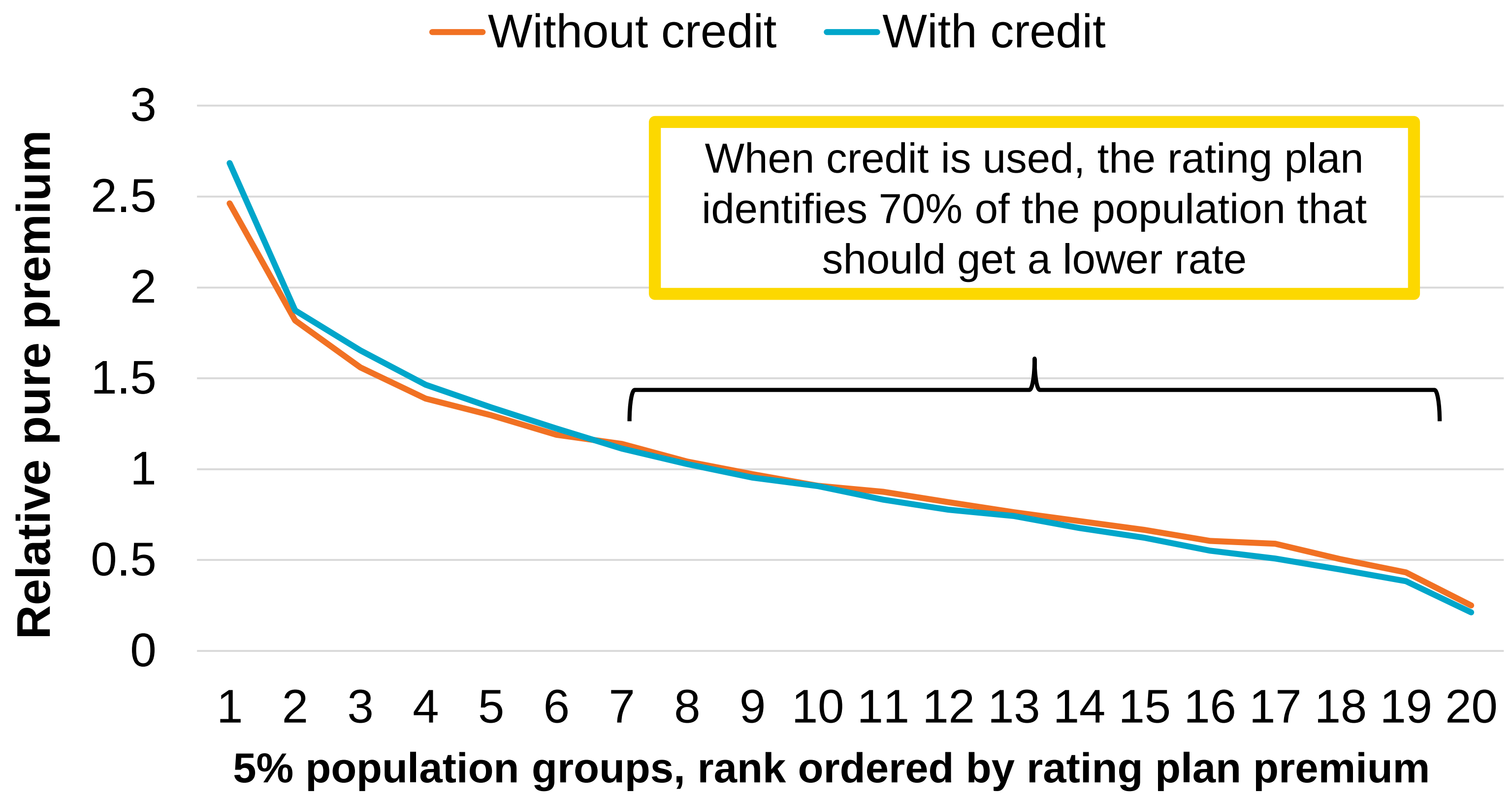
Through this analysis, we identified a set of consequences that occur when credit-based insurance scores are removed

Finding #1

Rating plans will become less accurate, reducing the range in pricing, ultimately impacting market competition which helps protect the interests of consumers

When credit-based insurance scores are removed, a rating plan becomes less accurate

Rating Plan Segmentation Comparison



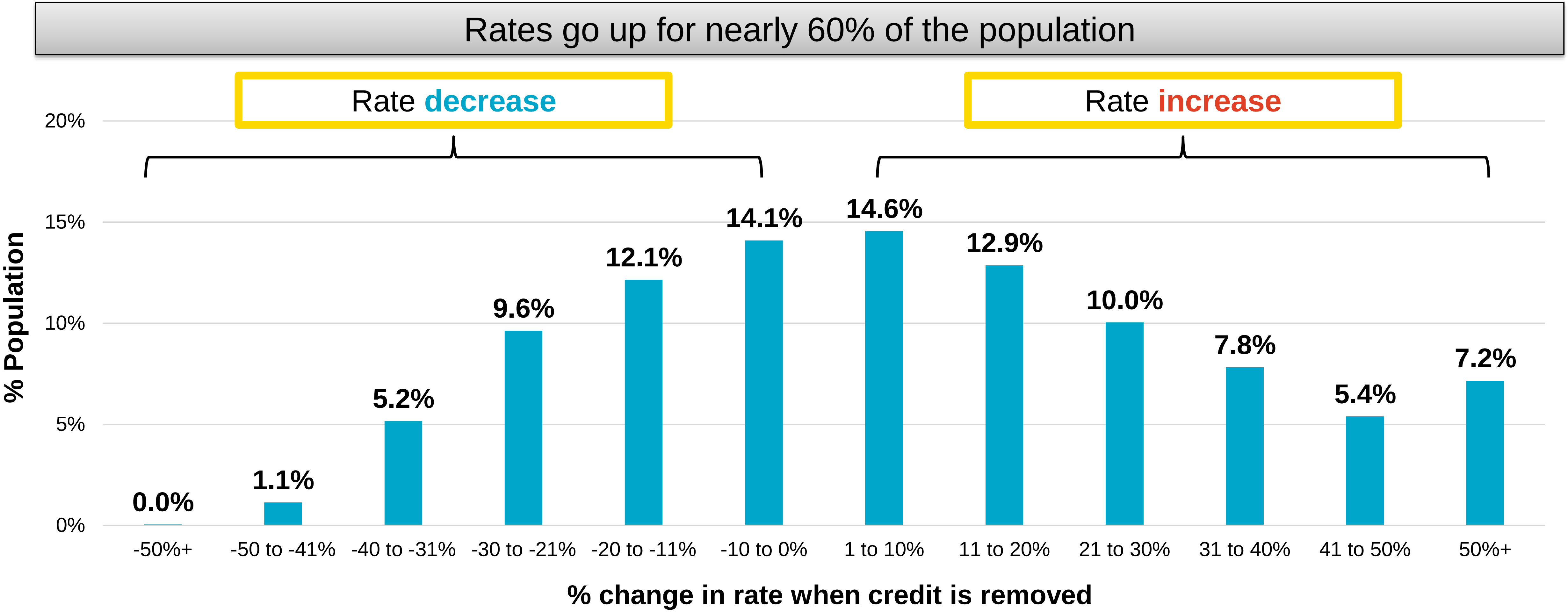
	Gini coefficient	% gain in accuracy
Without Credit	0.27392	
With Credit	0.30654	**11.9%**

Source: TransUnion internal analysis

Finding #2

The majority of consumers will face higher insurance prices

Removing credit-based insurance scores creates significant rate disruption

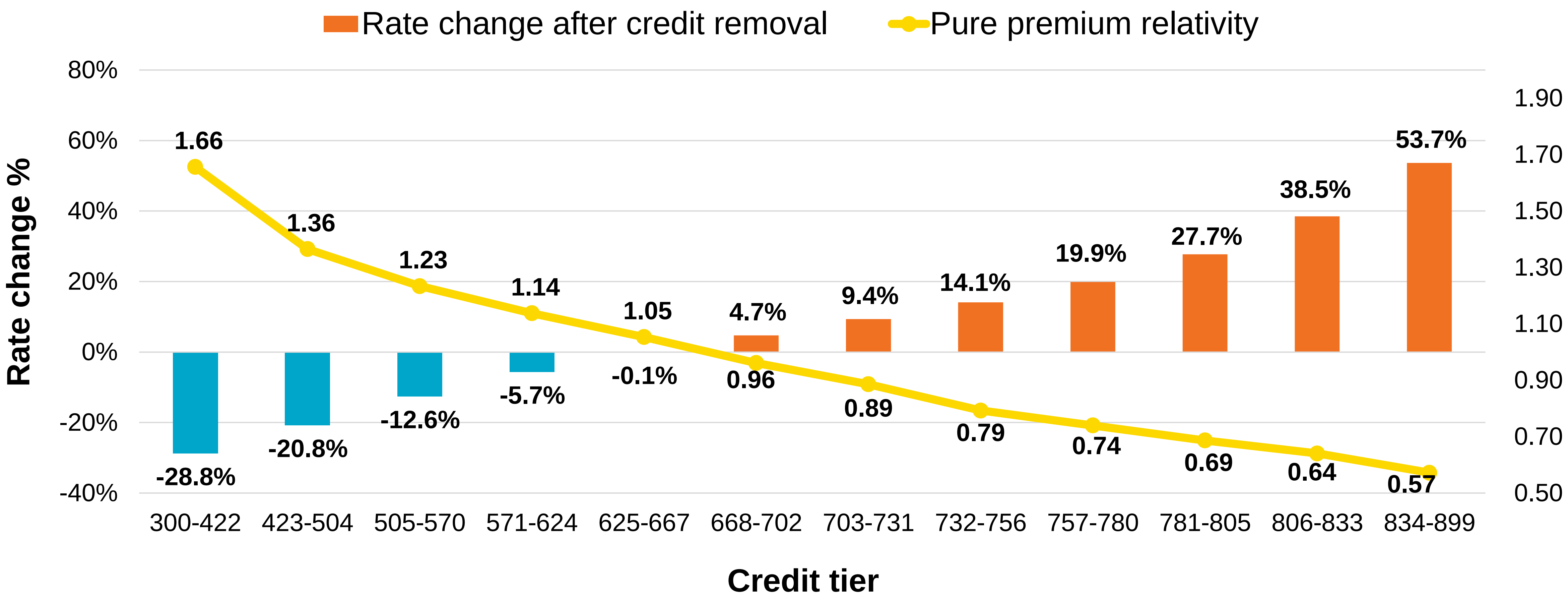


Source: TransUnion internal analysis

Finding #3

Rates will go down for those that have been statistically proven to be the riskiest customers

The removal of credit allows rates to go down for those that have been statistically proven to be the riskiest customers



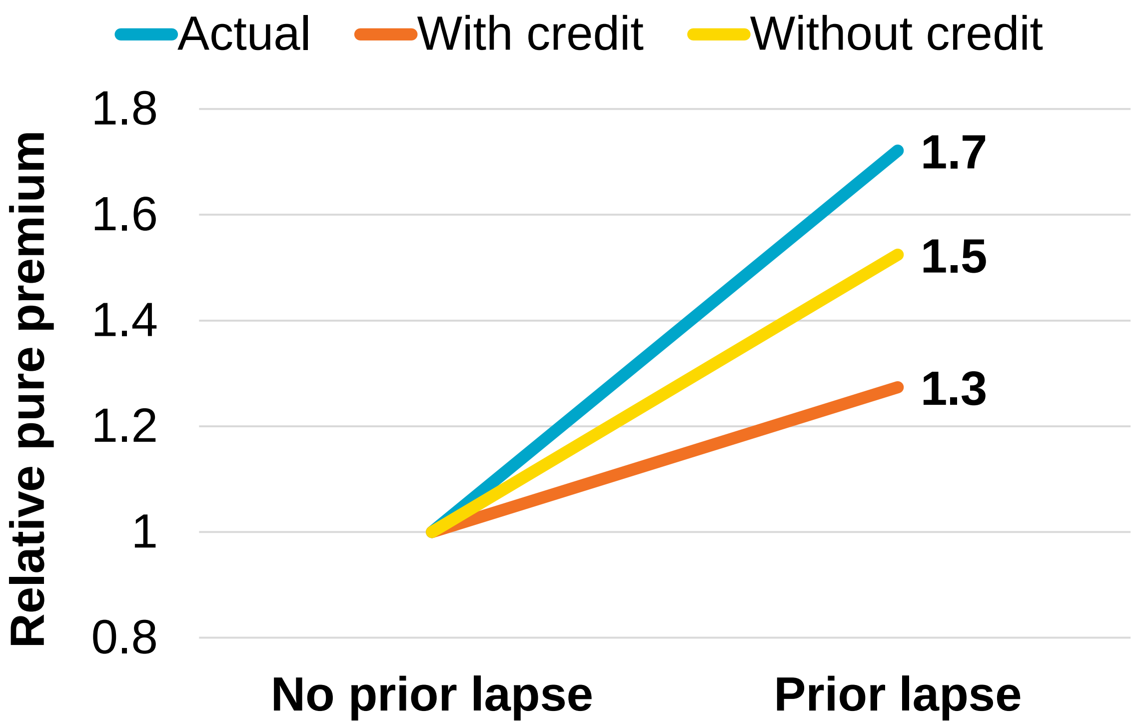
Source: TransUnion internal analysis

Finding #4

Rating variables related to financial hardship will have more weight placed on them when credit-based insurance scores are removed

The removal of credit forces other rating variables to play a stronger weight

Indicated weights with and without credit

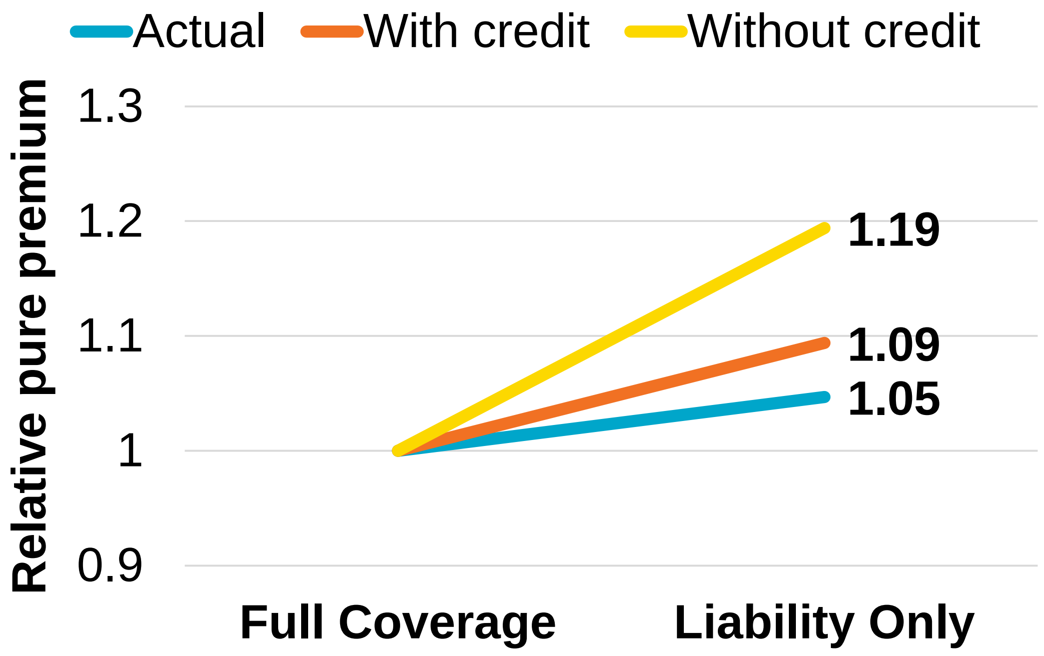


By examining the indicated weights for individual variables, we can easily identify cases where the model is trying to capture financial responsibility elsewhere once credit is removed

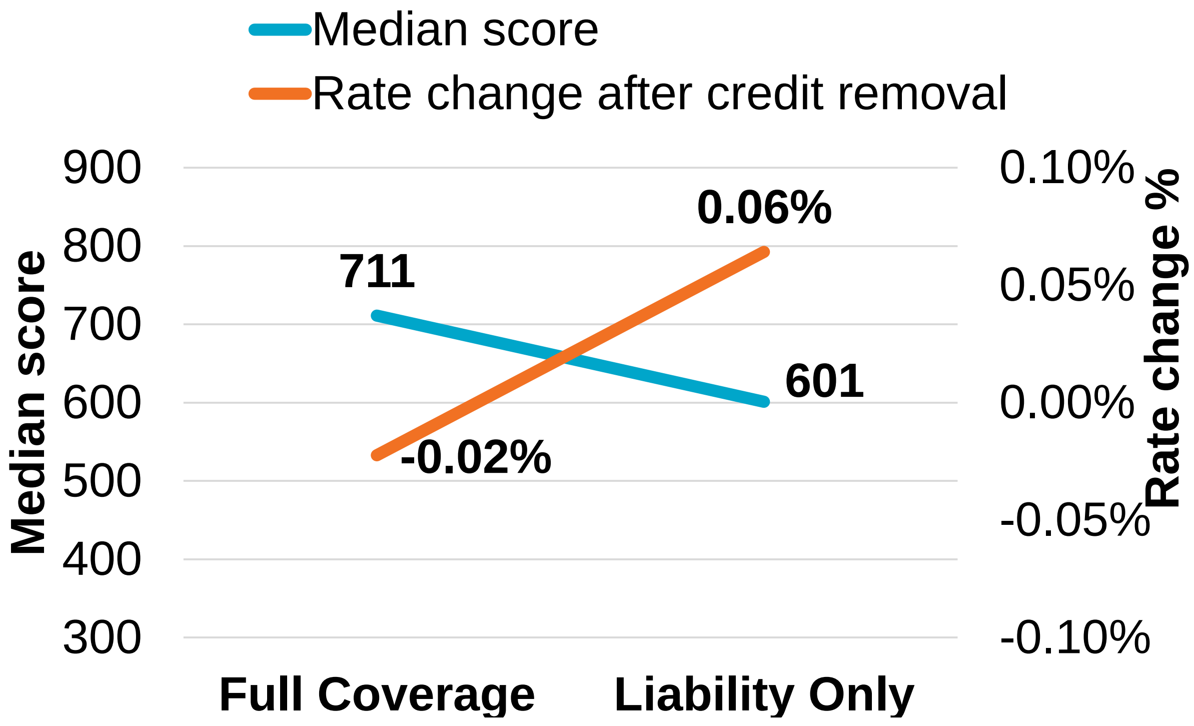
Source: TransUnion internal analysis

Often times the change in these variables outweighs the intended effect from the removal of credit

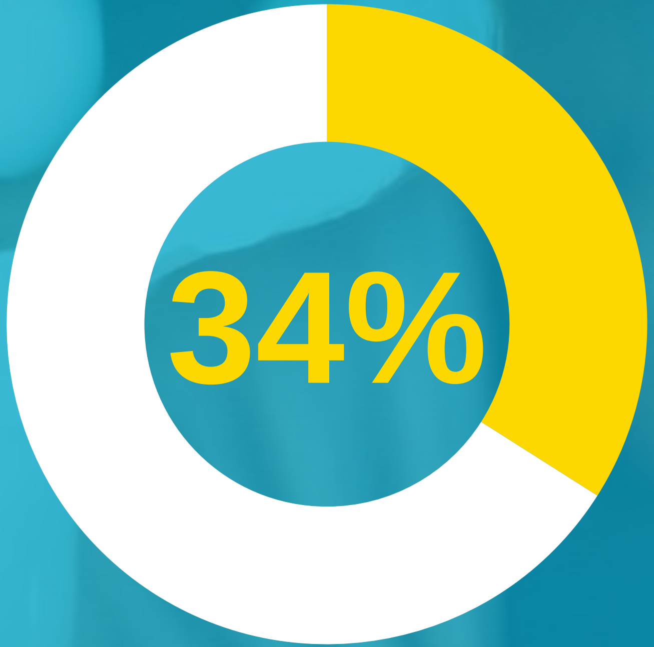
Indicated weights with and without credit



Overall rate change after credit removal



Source: TransUnion internal analysis



of surveyed consumers stated that they went from being fully insured to under or un-insured during the pandemic

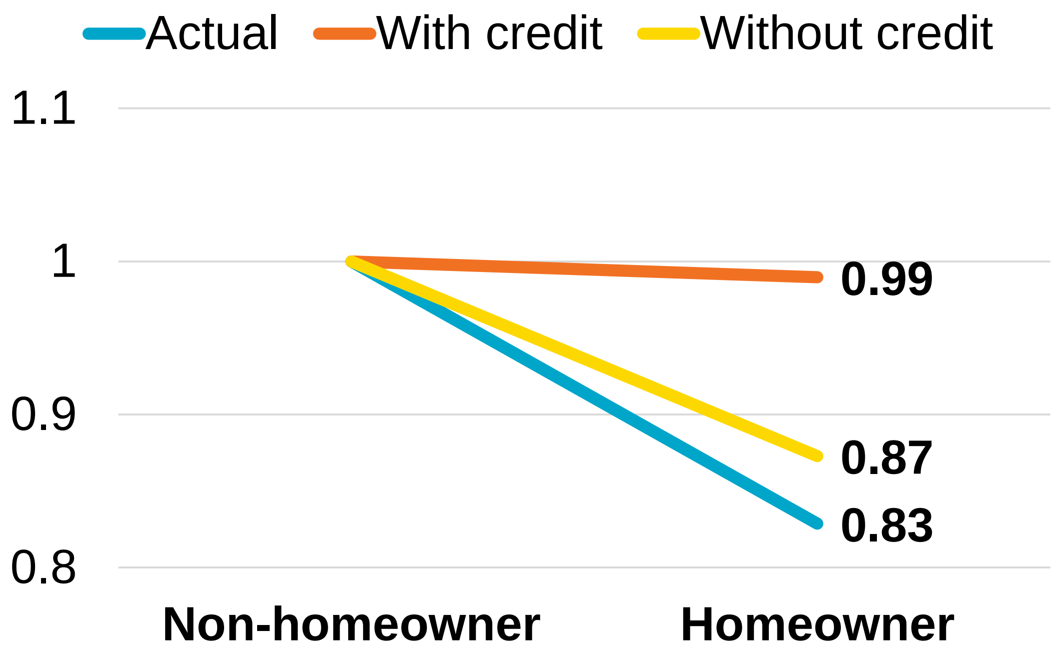
Of the 34%, there are signals that some consumers took action to improve the affordability of their auto policy:

- **20%** adjusted payment plan
- **32%** increased deductible to lower premium/regular payment
- **33%** reduced coverage

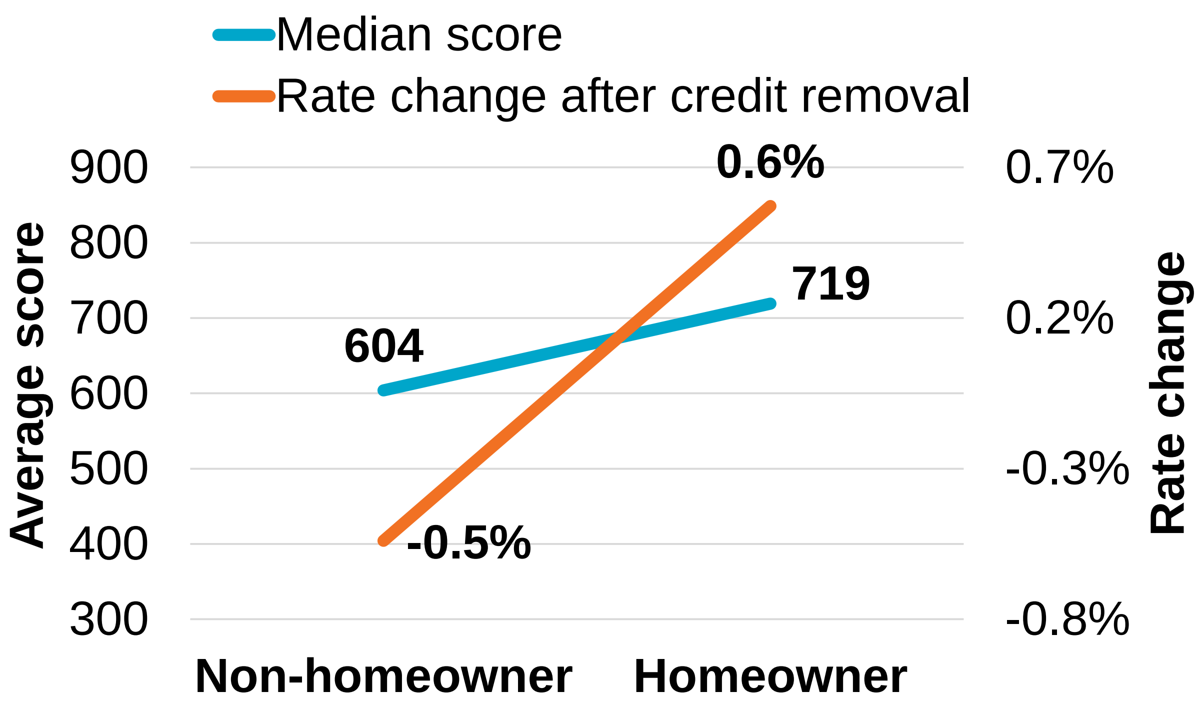
Source: TransUnion-conducted survey of 2,055 U.S. adults. March 24 -29, 2021.

Sometimes, the removal of CBIS outweighs the change in these variables, as demonstrated with homeownership

Indicated weights with and without credit



Overall rate change after credit removal



Source: TransUnion internal analysis

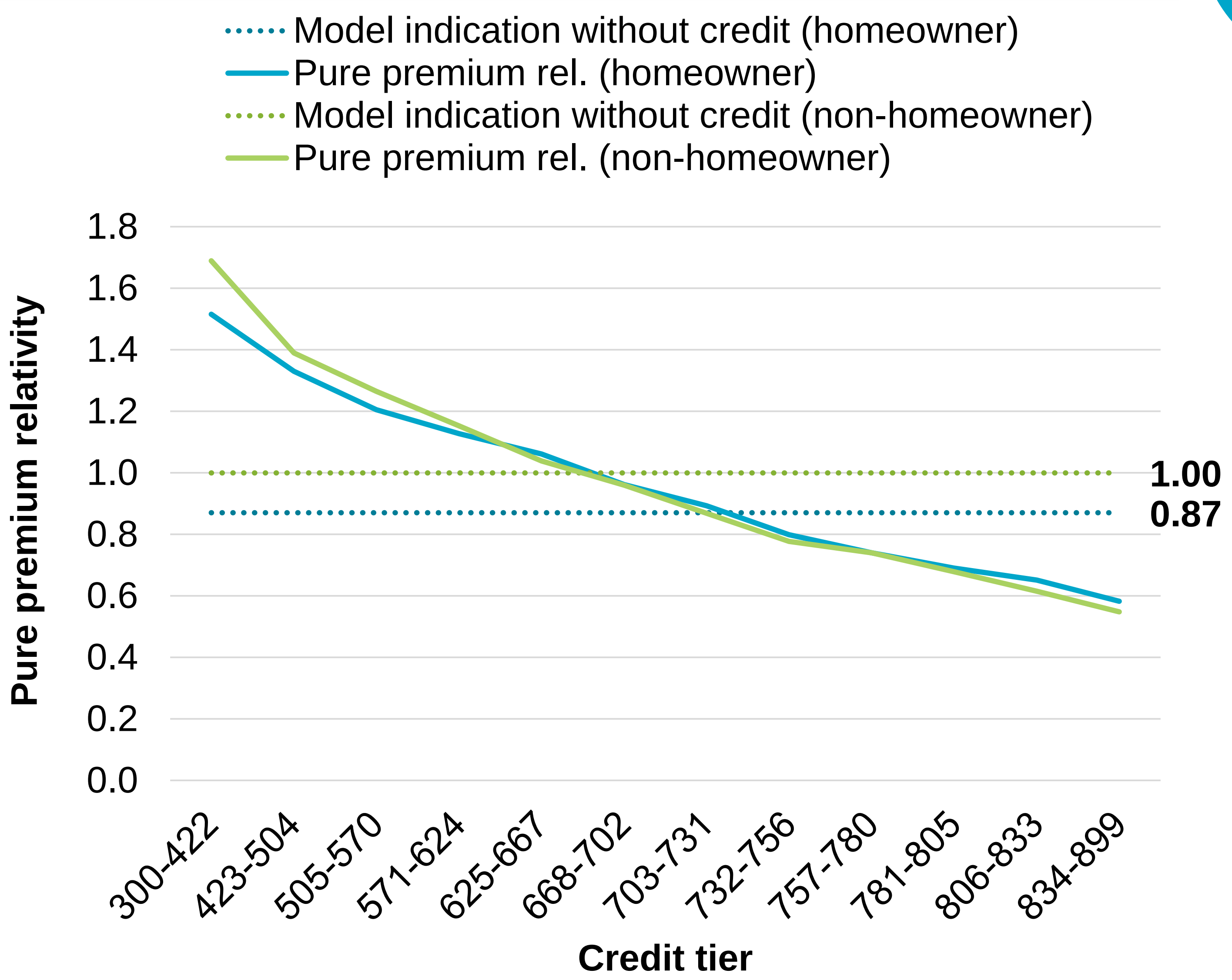
Finding #5

Consumers lose an element of control to justify a lower rate

Credit benefits both homeowners and non-homeowners.

Without it, consumers lose the ability to differentiate themselves from broad labels

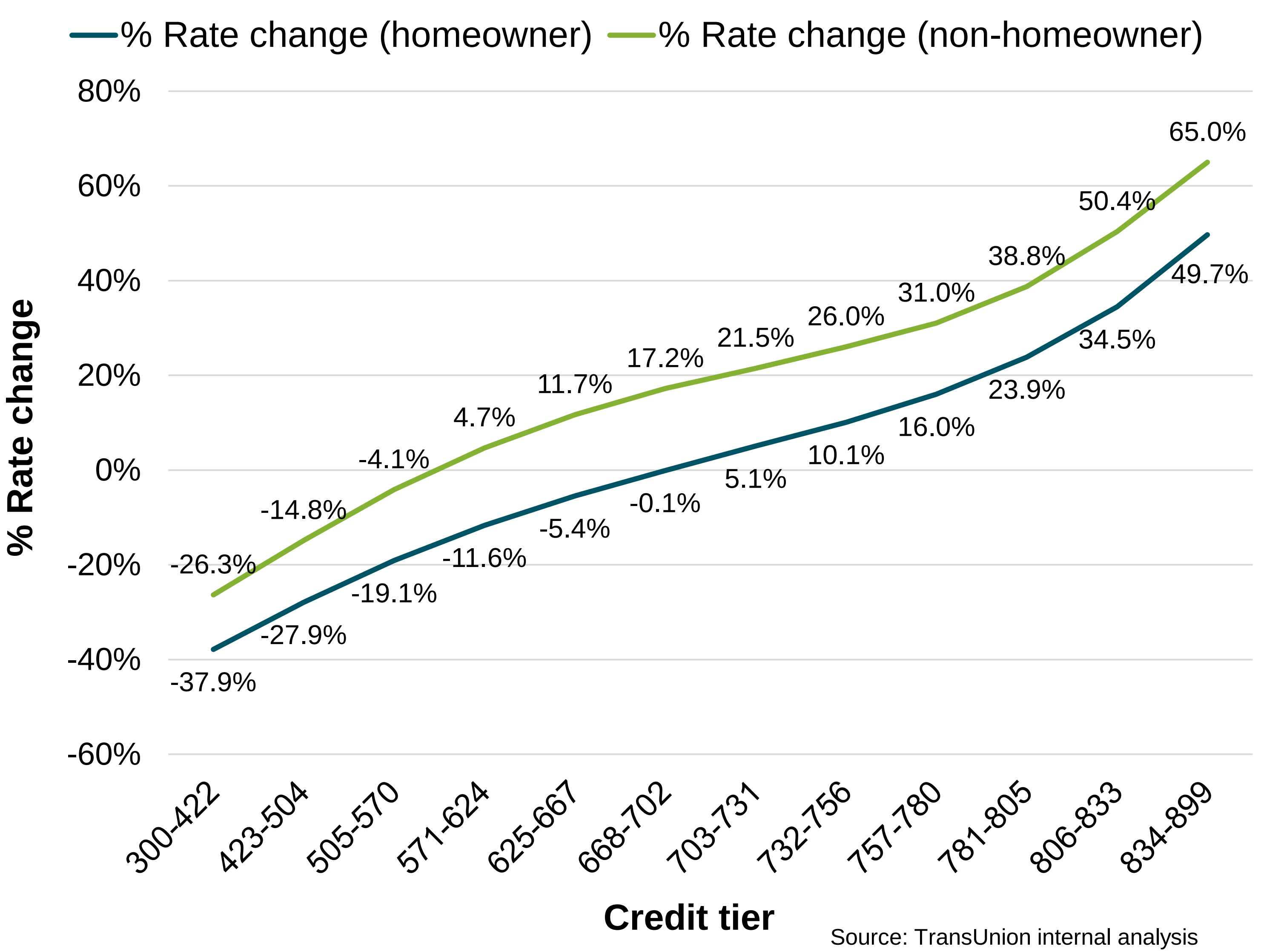
Credit segmentation: Non-homeowners vs. homeowners



Source: TransUnion internal analysis

When credit is removed, 61% of non-homeowners and 58% of homeowners will experience a rate increase

Rate change: Non-homeowners vs. homeowners



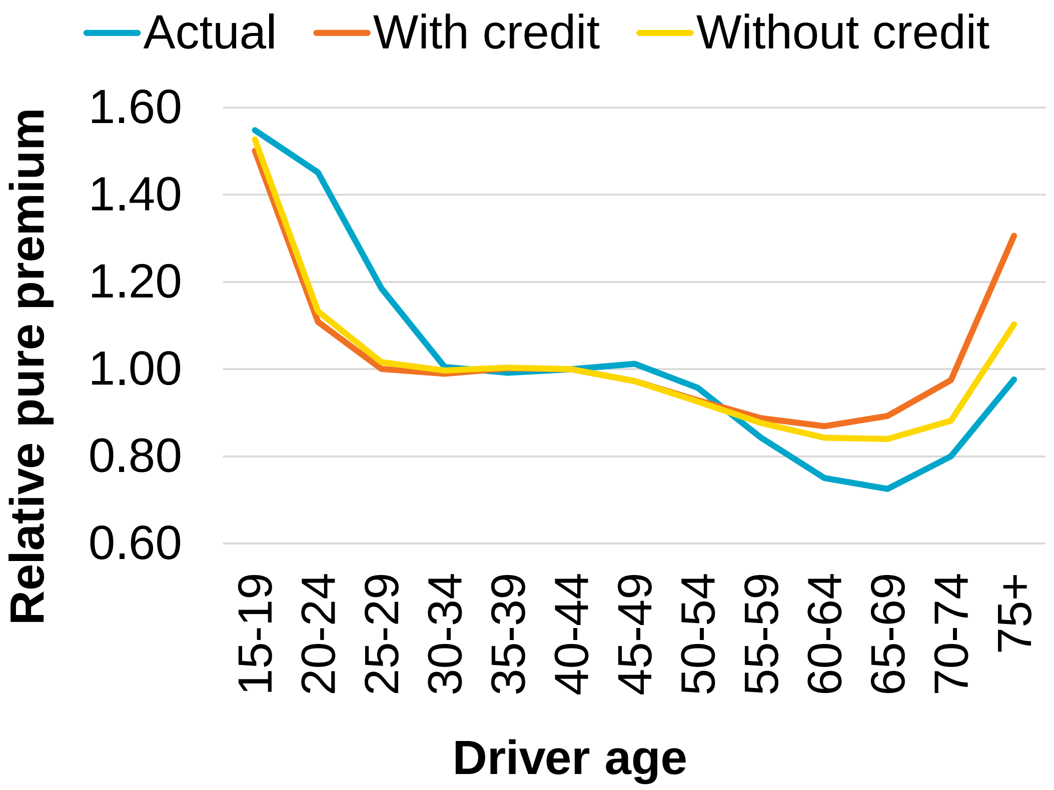
Source: TransUnion internal analysis

Finding #6

Consumers of all risk segments, not just those with better scores, will experience rate increases

The effect from removing credit-based insurance scores will not be one-dimensional

Indicated weights with and without credit



Overall rate change after credit removal

Driver age	Median score	Rate change
15-24	515	1.2%
25-34	645	0.5%
35-54	696	-0.6%
55-59	715	0.5%
60+	743	0.3%

- **Younger age groups** (lowest median scores) see a **rate increase**
- **Older age groups** (highest median scores) also see a **rate increase**

Source: TransUnion internal analysis

Removing credit-based insurance scores from a rate plan does not address concerns of consumer financial hardship

- A rating plan without credit-based insurance scores reduces the range of prices available to consumers
- Nearly 60% of consumers will face higher insurance prices
- Rating variables important to financial hardship will have more weight placed on them
- Credit-based insurance scores are a tool for consumers to differentiate themselves within broader risk segments in order to justify lower rates
- Consumers of all risk segments, not just better scores, will experience rate increases

Source: TransUnion internal analysis

Final thoughts

TransUnion, like the industry, is focused on **maximizing financial inclusion and equity**:

Incorporate trended and alternative credit information to expand the scoreable population and optimize outcomes

The industry needs to align on best practices for integrating fairness testing within its analytic and operational processes

Increased consumer advocacy and education on the use of credit information and risk-based pricing

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Questions? Thank you!

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