How Credit-Based Insurance Risk Scoring Can Move the Insurance Industry Forward

Examining the vital role insurance risk scores play for consumers in affordability and fairness

For more than two decades, credit-based insurance risk scores ("insurance risk scores" going forward) have been successfully used by insurance underwriters and actuaries to more accurately assess risk and price coverage for personal automobile and property insurance policies, and more recently for life insurance policies. These insurance risk scores increase objectivity in insurance decision-making and are empirically derived from credit report information, including age of account, account type, utilization of available credit, account history, delinquency information and credit-seeking activity.

But the seismic social upheavals of 2020 and 2021 have had the potential to disrupt the place of insurance risk scores in the industry. The COVID-19 pandemic and its accompanying economic shock led to some consumer-protection legislation that affected credit reporting, leading to worries about the accuracy of insurance risk scores.

Meanwhile, widespread calls for social justice led many to question the fairness of using risk scores as a metric in a number of industries, including insurance, and there have been some limited legislative and regulatory initiatives to restrict or modify their use.

Over the past year, TransUnion has been gathering data and conducting research to verify that insurance risk scoring remains stable and predictive even in a tumultuous economic environment. Moreover, removing insurance risk scores from the underwriting process can have a number of negative effects for consumers, including higher insurance prices for the majority and the removal of a tool for consumers to differentiate themselves and justify a lower premium.

1. The unintended consequences of removing credit-based information from insurance underwriting

Insurance pricing is a complex, multi-variate process, and an insurance risk score is only one variable in the mix. But it's a particularly predictive and important one, and, when removed from the underwriting process, there can be unintended and perhaps counterintuitive results, such as increasing premiums for consumers across all risk profiles – including some of the groups that legislators and regulators are attempting to protect.

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If insurers are prevented from using insurance risk scores, they will place greater reliance on other variables to build their models, such as the consumer's age, neighborhood (ZIP code), prior coverage and limits, or homeowner status. While a model built on those variables alone is still accurate in an aggregate actuarial sense, it is a blunter instrument, painting consumers within those categories with a broader brush.

This can have a particularly negative impact on some groups. For instance, as a result of rising housing prices and shortage of supply, many consumers may now continue to rent instead of buy a home. Without the advantage of a homeowner discount, this group of consumers, which includes a range of insurance scores, would potentially receive the same auto insurance rate based on their renter status. An insurer that takes insurance risk scores into account could differentiate between scores within the renter population and offer lower, more competitive rates despite the lack of homeownership status. But if credit-based scoring is removed from the equation, those same consumers will likely end up paying higher premiums.

In fact, empirical evidence shows that in an underwriting model that incorporates insurance risk scores, about 59% of the population could have a chance at a better rate than they would under a model that excludes credit. And this particularly impacts certain consumer segments, because some variables are more (or less) easily influenced by the consumer. For example, while it's impossible to change your age and often difficult to change neighborhoods, it can be much easier to take steps to improve your credit.

From the insurer's perspective, credit-based scoring is also an important tool in marketing and customer acquisition. Credit-based data isn't just used to assess risk; it can also measure shopping propensities and can thus signal to an insurer when a consumer might be ready to buy. Without credit-based scoring, carriers lose a powerful method for efficiently placing the right product in front of the right consumer at the right time. And consumers are equally presented with fewer offers for insurance coverage that meet their coverage needs.

The removal of insurance risk scores will have broader market implications beyond changes to the rating plan. Insurers would lose unique insights into a consumer's individual behavior; that could lead to limitations in product or program offerings to consumers, as eligibility criteria would shift to broader risk characteristics such as prior accidents, violations and coverage history. In addition, the substitution of unregulated data could decrease the transparency of the underwriting and rating process to the consumer and uncover new concerns of fairness and privacy, whereas the various federal and state regulations applicable to insurance risk scores ensure there are appropriate guardrails for how such information may be used, along with offering consumer-specific rights born from such applicable laws.

Removing insurance risk scores could send life insurance underwriting backward

The life insurance industry has historically needed to accelerate its underwriting processes to meet evolving consumer expectations. Buying a life insurance policy is typically a long and invasive process, requiring an in-person medical exam that includes drawing fluids.

However, in 2020, even as in-person interactions were avoided due to the COVID-19 pandemic, life insurance applications actually increased by more than 4% over the previous year. By taking insurance risk scores into account, insurers have been able to offer new life insurance policies to a significant majority of applicants, making decisions within hours (instead of weeks or months) and offering access to higher face amounts, all without the need for an in-home visit or extensive medical review. Without insurance risk scores and the accelerated underwriting process they enable, insurers will not be able to meet consumer demand for online or digital access to life insurance coverage.

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2. CARES Act accommodations: A success story for insurance risk scores

With the Coronavirus Aid, Relief and Economic Security (CARES) Act in 2020, the US Congress acted to ensure that Americans who found themselves in financial distress due to the effects of the pandemic could protect their credit from economic conditions outside their control. But the combination of those protections, the pandemic itself and its impact on the economy raised concerns in the insurance industry. Would these accommodations degrade the quality of the credit-based analytics that are crucial for decision-making?

In fact, we now have enough hindsight to know that both the CARES Act and credit-based insurance scores worked as intended over the worst phases of the COVID-19 pandemic and the associated economic fallout. Overall, most consumers who experienced hardship as a result of lost or reduced employment were able to secure accommodations with lenders so their credit score wasn't negatively affected. At the same time, credit-based insurance scores remained stable and predictive.

TransUnion CreditVision® Auto, a credit-based risk score for auto insurance, provides a strong example of this stability. Figure 1 compares the monthly median score through July 2021 for the total credit-

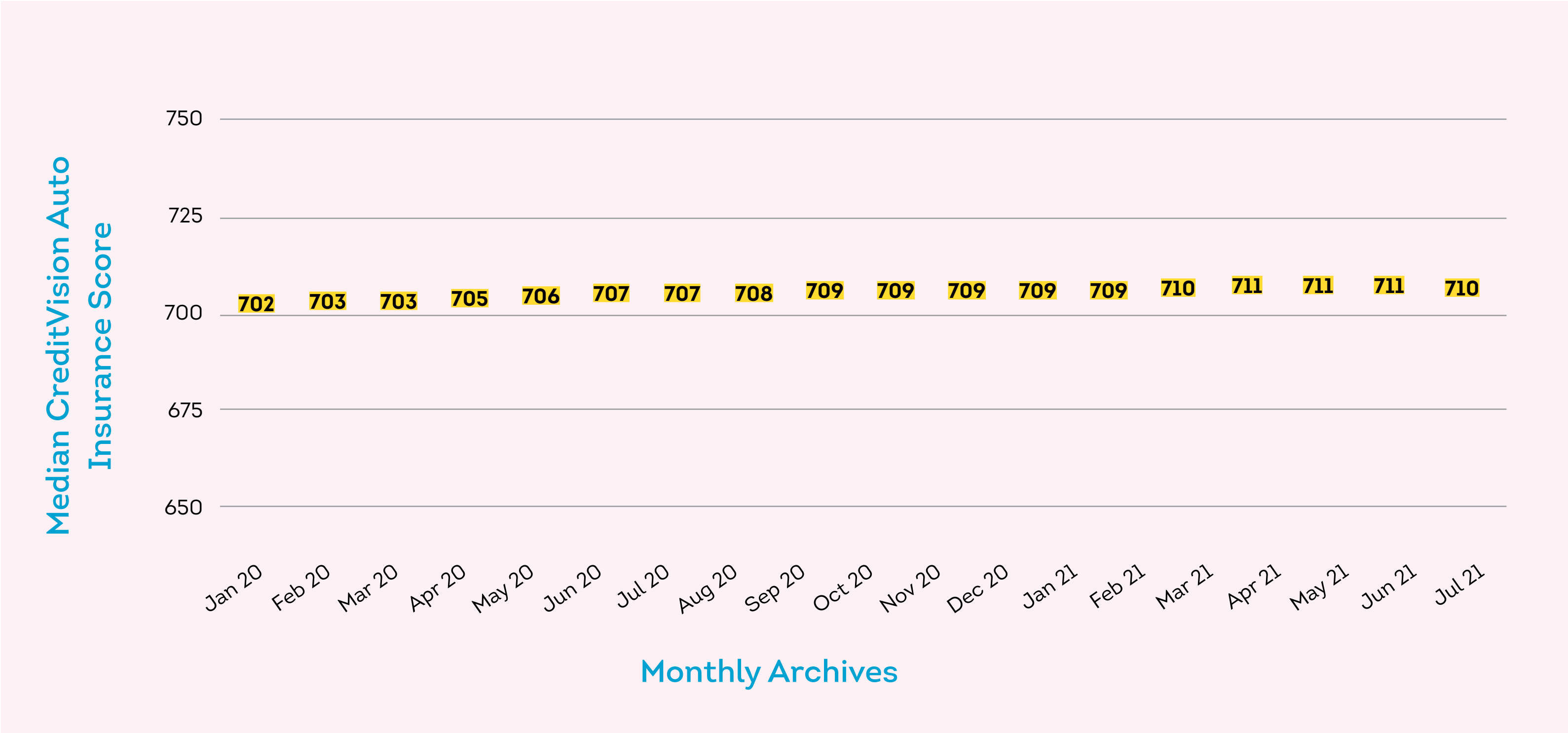

Figure 1. CreditVision Auto Insurance Score monthly median score.[1]

active population. A higher score indicates a lower insurance risk. As you can see, this score showed strong stability throughout 2020 and into 2021. It should be noted that all TransUnion insurance risk scores showed similar stability, [including our TrueRisk® Life score](). This reflects an underlying stability in the economy, cushioned by the post-lockdown recoveries and the stimulus provided by the CARES Act and other legislative interventions.

TransUnion research has shown that a large majority of consumers actually continued to make payments on accounts in accommodations and that 86% of accommodations have now been removed. The CARES Act's credit reporting provisions helped maintain stability in insurance risk scores, so insurance providers and consumers weren't negatively affected by the initial sharp pandemic economic shock.

The consumer protections of the CARES Act continue to apply after an accommodation ends. In June 2020, the Consumer Financial Protection Bureau published CARES Act consumer reporting guidance outlining post-accommodation protections. The guidance specified that a consumer who had a "current" account status when an accommodation was entered cannot be reported as delinquent based upon the accommodation-covered period once the accommodation ends, assuming payments were not required or the consumer met any payment requirements of the accommodation. Additionally, the accommodation-covered period cannot be used to advance, or accelerate, a delinquency once the accommodation ends.

The credit accommodations built into the CARES Act were unprecedented in scale, but not in kind. Legislatively mandated accommodations are not new, and we can expect them to remain important in the future. Data furnishers have historically leveraged the same accommodation practices to provide relief to consumers facing financial hardship from events, such as catastrophic weather events and other declared emergencies. The years 2020 and 2021 have showed us that insurers can rely on the integrity of credit-based scoring even in an environment when traditional payment terms do not apply to some consumers.

3. Fairness testing: The insurance industry needs to align on best practices

Actuarial science and predictive modeling are decades old and well honed. The insurance industry has become very good at building models that are empirically sound, demonstratively strong and stable.

However, as part of the reckoning sought by many in the United States and across the world in the wake of the civil rights protests in 2020, social and regulatory attention has been using fairness and equity as a lens to evaluate the outcomes of existing processes like insurance underwriting. For example, a new law in Colorado, which will come into effect at the beginning of 2023, will require insurers to provide analytical evidence that their operational processes do not result in unintended discrimination against certain consumer groups.

FAIRNESS TESTING IN THE INSURANCE INDUSTRY AND ACADEMIA

Fairness testing research and practice is still in its infancy within the insurance industry but is more robust in academia. Much of the current focus is on race, ethnicity and income; it's against the law for insurance companies and consumer-reporting agencies to collect or store information on race and ethnicity, which makes it very difficult to analyze fairness and equity along these axes. The industry will need to evaluate options for capturing or estimating these characteristics.

One of the most important academic researchers on this subject is Stanford University's Barbara Kiviat, who studies social attitudes towards credit scoring. In particular, she has elaborated the concept of logical relatedness in the use of credit scoring: Consumers resist or resent the application of credit scores to areas of their lives if they don't see a clear connection between the two. And many consumers and legislators alike currently do not view credit as something logically related to insurance, which leads them to see insurance risk scores as unfair.

Dr. Kiviat writes that a question for future research would be, "…if logically unrelated, morally heterogeneous data don't seem so bad if using them promises to expand the market to previously excluded individuals." In other words, even if consumers and policymakers don't see a logical connection between insurance risk scores and insurance pricing, will they appreciate their role in expanding the market?

Another important finding in Dr. Kiviat's research is that consumers are more likely to find a credit-based score fair if they know it does not misclassify risks. As an example, a consumer who is late on their credit card payments due to an involuntary loss of employment would be misclassified if they are treated the same as a consumer who intentionally failed to make their credit card payment. As TransUnion has shown with the accommodations around the CARES Act, insurance risk scores can be tailored to exclude consideration of factors that are outside the control of the consumer and still remain stable and predictive.

TransUnion strongly believes insurance risk scores do help make the industry fairer – including, and perhaps especially, during times of crisis, as in 2020. Among other things, insurance risk scores:

- Provide a scalable, objective and actuarially sound tool that helps insurers compete nationally and in previously underserved areas
- Lower competitive barriers, which lowers industry costs and, in turn, leads to **greater access** and **more choices for consumers**
- Measure behavioral risk of the consumer, which is a significant driver of insurance losses and provides more credibility and accuracy in the rating process

LOWERING PREMIUMS FOR MANY CONSUMERS

Insurance risk scores increase a rating plan's accuracy. A more accurate rating plan results in a greater range of prices for consumers, lowering the costs of insurance for many and helping to fuel a competitive marketplace.

TransUnion recently conducted research comparing the accuracy of two rating models – one that included insurance risk scores and one that did not. The model including insurance risk scores predicted lower than average loss costs for 70% of insurance risk evaluated. **Stated another way, 70% of the insurance risk evaluated would have likely qualified for a lower premium under the model that included insurance risk scores compared to the model that did not.**

New Jersey is a good test case to study in this area, as it only legalized the use of insurance risk scores in personal insurance in 2003 – later than most other states, which means that the science behind the scoring was robust and mature when it was rolled out there. As you can see in Figure 2, after the state's insurance regulations were overhauled and credit-based scoring became available to insurance providers there, **there was a dramatic expansion in the availability of higher-quality insurance to consumers who had previously been stuck in a high-risk pool without many options.**

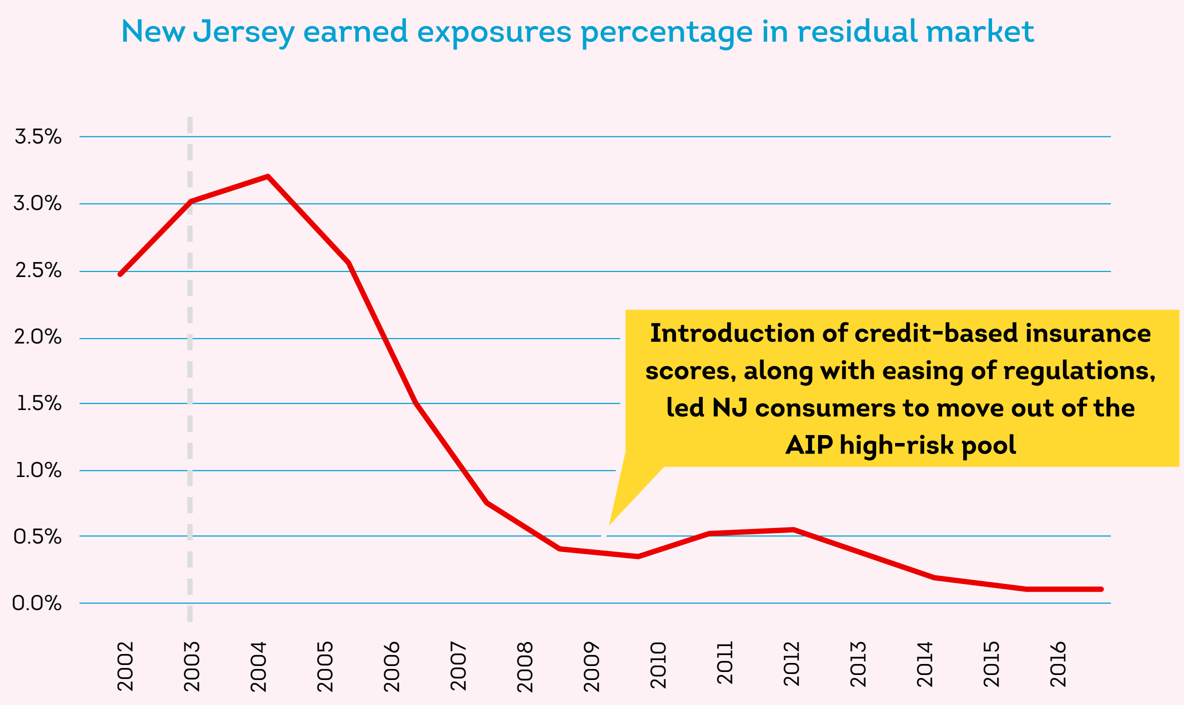

Figure 2: New Jersey earned exposures percentage in residual market.
Source: Annual NAIC Auto Insurance Data Report

All of this points to an opportunity for concrete action by insurance industry participants:

- First, the industry should educate consumers about the logical relatedness between credit and insurance
- Second, the industry must evaluate and articulate how insurance risk scores benefit consumers and underserved communities with access to affordable insurance products
- Third, the industry should strive to improve transparency to consumers and consumer understanding of insurance products and rates

4. Consumer advocacy and education

Most consumers are simply unaware that credit information is used in insurance underwriting. The relationship between credit information and insurance risk evaluation is technical and complex.

According to Dr. Kiviat's research, in order for someone to accept a credit-based scoring regime, they must be provided with a clear causal theory that explains why and how the scoring system works. Insurers have the opportunity to provide a clearer understanding by taking a number of steps to raise awareness and educate consumers on the use of credit information in underwriting, including how and why credit information is used, the benefits and opportunities it provides to consumers, and the protections and rights afforded to consumers in the current process.

WE RECOMMEND THAT INSURERS:

1. Provide consumers with an explanation of what insurance risk scores are, how they differ from financial credit scores, and how insurers use them in combination with other variables to underwrite policies. (See below for some sample language.)
2. Explain to consumers why insurance risk scores are used in underwriting, including the benefits to consumers.
3. Provide consumers information on the protections and rules governing insurance risk scores, including rights that consumers have to access and dispute their personal consumer report information, opt out of prescreen marketing campaigns and freeze their consumer report.
4. Describe to consumers the credit behaviors that can lead to an improvement in their score. By providing consumers with this information, you can empower them to control and manage their personal credit history, which can lead to greater financial inclusion and lower cost.

Finally, insurers must take their advocacy mission to local and national legislators as well. Teams working with insurance risk score-informed products should work hand in hand with corporate government relations teams to identify potential trouble spots. Now is a great time to make your colleagues in government relations aware of this topic and ensure they are working to engage on your company's behalf.

Insurance risk scores vs. credit scores: Explaining the distinction

Even though insurance risk scores have been used by the insurance industry for many years, it's easy to understand why some might think of an insurance score as just another version of the traditional credit score we're all familiar with. But that's not the case. Both scores are similar in that they predict future risk, but they differ in why and how they are created.

Traditional credit scores:

- Predict credit delinquencies of financial transactions, such as for credit cards or mortgages
- Are used as the primary tool in credit underwriting decisions, potentially among other variables
- Are subject to the Fair Credit Reporting Act ("FCRA")
- Permit the use of account balance amount

Insurance risk scores:

- Predict insurance losses
- Are used to make insurance underwriting decisions, in conjunction with other variables (e.g., age and claims history)
- Are likewise subject to FCRA and consider unique state regulations regarding use of credit in insurance
- Typically exclude account balance amount

TRANSUNION: COMMITTED TO HELPING THE INDUSTRY AND CONSUMERS

Insurance risk scores are a vital predictive variable for risk assessment across personal and life lines of business. We are monitoring score trends with the aim of helping insurers and consumers weather the storm and emerge stronger than before. We call this Information for Good®.

HOW TO LEARN MORE

If you have questions about TransUnion insurance risk scores, please visit **transunion.com/industry/insurance** or email inssupt@transunion.com.

CITATIONS

1 The monthly median CreditVision Auto Insurance Scores (scores) for January 2020–October 2020 are slightly different than the scores included in the January 2021, Credit-Based Insurance Risk Scores and COVID-19: What You Need to Know report. The score difference is due to a change in underlying consumer reporting data used to develop the exhibit. The monthly score trend is the same between the two data sources.