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COMMISSIONER

JAMES C. DIMITRI
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COMMONWEALTH OF VIRGINIA

JOEL H. PECK
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P.O. BOX 1197
RICHMOND, VIRGINIA 23218-1197

STATE CORPORATION COMMISSION

September 29, 2016

The Honorable Terry G. Kilgore
Chairman, House Commerce & Labor
P.O. Box 669
Gate City, Virginia 24251

The Honorable Frank W. Wagner
Chairman, Senate Commerce & Labor
P.O. Box 68008
Virginia Beach, VA 23471

Re: 2015 House Joint Resolution 594 Study

Dear Delegate Kilgore and Senator Wagner:

House Joint Resolution 594 (2015) requested the State Corporation Commission's Bureau of Insurance to study the use by insurers of an applicant's or insured's credit information in connection with the underwriting of a motor vehicle insurance policy. The Bureau of Insurance was requested to submit a report of its findings and recommendations to the Chairmen of the House and Senate Committees on Commerce and Labor by October 1, 2016.

With this letter, the Commission submits its report. As always, we will provide additional information or assistance upon request.

Respectfully submitted,

James C. Dimitri, Chairman

Mark C. Christie, Commissioner

Judith Williams Jagdmann, Commissioner

Attachment

REPORT OF THE
STATE CORPORATION COMMISSION ON

THE USE BY INSURERS OF AN INSURED'S OR APPLICANT'S CREDIT INFORMATION IN CONNECTION WITH UNDERWRITING MOTOR VEHICLE INSURANCE POLICIES

TO THE CHAIRMEN OF
THE HOUSE COMMITTEE ON COMMERCE AND LABOR
AND THE SENATE COMMITTEE ON COMMERCE AND LABOR

COMMONWEALTH OF VIRGINIA
RICHMOND

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Executive Summary

Pursuant to the provisions of 2015 House Joint Resolution No. 594, the State Corporation Commission Bureau of Insurance (Bureau) was requested to study the use by insurers of an insured's or applicant's credit information in connection with underwriting motor vehicle insurance policies. The Bureau was directed to (i) examine §§ 38.2-2212, 38.2-2213, and 38.2-2234 of the Code of Virginia to determine if those provisions unfairly burden motor vehicle insurance policyholders; (ii) determine whether the use of consumer credit information, rather than relying on the insured's or applicant's driving record and other factors proximately related to risks of operating a motor vehicle, in setting insurance premiums and tier ratings is appropriate; and (iii) determine whether the use of consumer credit information in setting insurance premiums and tier ratings discriminates against poorer or younger people who either have had challenges with credit or have no credit history. The Bureau was requested to submit a report of its findings and recommendations to the Chairmen of the House Committee on Commerce and Labor and the Senate Committee on Commerce and Labor by October 1, 2016.

In 1999, at the request of Senate Commerce and Labor, the Bureau prepared a report titled **Use of Credit Reports in Underwriting** on the use of consumer credit information as a tool for risk selection (refusal to issue a policy). The Bureau reviewed consumer complaints pertaining to insurance companies' use of credit reports to determine how insurers were utilizing credit and the relationship between credit scores and income as well as credit scores and race. In that report, the Bureau concluded that while insurers had sufficient data to statistically correlate credit scores to losses, neither income nor race was a reliable predictor of credit scores. The Bureau recommended that the insurance industry educate consumers on the use of credit scores in the underwriting process. Legislation was enacted in 2003 setting out conditions for the use of consumer credit information and insurance credit scores and the necessary disclosures to consumers regarding their method of usage.

In conducting this 2016 study, the Bureau examined (i) the use of consumer credit information, including the use of insurance credit scores, by insurers writing private passenger automobile insurance in Virginia; (ii) the number of complaints received by the Bureau's Property and Casualty Consumer Services Section; and (iii) information from other credible studies on the use and impact of consumer credit information and insurance credit scores in insurance underwriting.

The Bureau receives few Virginia consumer complaints and inquiries related to the use of consumer credit information, and there is no evidence that the provisions of §§ 38.2-2212, 38.2-2213, and 38.2-2234 of the Code of Virginia unfairly burden motor vehicle insurance policyholders. A review of rate filings established that consumer credit information is not the sole rating variable or risk characteristic used to determine insurance premiums and assign rating tiers in Virginia. The use of consumer credit information in setting insurance premiums and tier ratings is not inappropriate, especially if combined with other traditional rating variables (age, gender, marital status, driving record, etc.) which have long standing established actuarial credibility.

There are no definitive studies which establish whether the use of consumer credit information in setting insurance premiums and tier ratings discriminates against poorer or younger people who either have had challenges with credit or have no credit history. However, the Code of Virginia provides certain protections that are designed to limit the impact of consumer credit information on any individual who has no credit history or experiences a direct impact on credit from catastrophic events, regardless of age or economic status.

The Bureau will continue to monitor the number and makeup of consumer complaints related to the use of consumer credit, and will continue to monitor insurers' use of consumer credit information in rating and tiering auto insurance policies in Virginia. If significant changes in the usage of consumer credit information are noted, the Bureau would make appropriate recommendations to the General Assembly as to the need to consider restrictions or elimination of the use of consumer credit information in rating auto insurance in Virginia.

LEGISLATIVE REQUEST

Pursuant to the provisions of House Joint Resolution No. 594, the State Corporation Commission Bureau of Insurance (Bureau) was requested by the 2015 General Assembly to study the use by insurers of insureds' or applicants' credit information in connection with underwriting motor vehicle insurance policies. The Bureau was requested to submit a report of its findings and recommendations to the Chairmen of the House Committee on Commerce and Labor and the Senate Committee on Commerce and Labor by October 1, 2016.

House Joint Resolution No. 594 further stated that the Bureau, in conducting its study, "shall (i) examine §§ 38.2-2212, 38.2-2213, and 38.2-2234 of the Code of Virginia to determine if those provisions unfairly burden motor vehicle insurance policyholders; (ii) determine whether the use of consumer credit information, rather than relying on the insured's or applicant's driving record and other factors proximately related to risks of operating a motor vehicle, in setting insurance premiums and tier ratings is appropriate; and (iii) determine whether the use of consumer credit information in setting insurance premiums and tier ratings discriminates against poorer or younger people who either have had challenges with credit or have no credit history."

BACKGROUND

In order to comply with the study request, the Bureau developed a plan to examine information regarding (i) the use of consumer credit information, including the use of insurance credit scores, by insurers writing private passenger automobile insurance in Virginia, (ii) the number of complaints received by the Bureau's Property and Casualty-Consumer Services Section (Consumer Services Section), and (iii) information from other studies performed by credible sources examining the use and impact of consumer credit information and insurance credit scores in insurance underwriting.

For the purposes of this report, the term "underwriting" means the process by which an insurance company decides to insure or refuses to insure a risk and the factors used to determine the appropriate premium to be charged for the coverage provided. The statutes cited as the subjects of examination in this report apply to private passenger automobile insurance policies, which are used to insure individuals or risks that are spouses. For the remainder of the report, private passenger automobile (PPA) will be used to describe such insurance policies.

In 1999, at the request of Senate Commerce and Labor the Bureau issued a report titled **Use of Credit Reports in Underwriting**. In this report, the Bureau studied the use of consumer credit information as a tool for risk selection (refusal to issue a policy). The Bureau reviewed consumer complaints pertaining to insurance companies' use of credit reports, rate filings to determine how insurers were utilizing credit, and other state's laws regarding the use of credit reports, and analyzed the relationship between credit scores and income and credit scores and race. The Bureau found that insurers had sufficient data to statistically correlate credit scores to losses, that nothing in its analysis lead the Bureau to the conclusion that income or race alone is a reliable predictor of credit scores, making credit scoring an ineffective tool for redlining, and ultimately recommended that the insurance industry take steps to educate consumers about the use of credit scores in the underwriting process. Furthermore, through continued monitoring of the number of credit-related consumer complaints to determine if greater numbers of insurers were refusing to issue or renew coverage solely on the basis of an adverse credit history, the Bureau reserved the right to consider proposing legislation to prohibit that practice. As a result of the Bureau's continued monitoring, legislation was introduced and passed in 2003 setting out the conditions when consumer credit information and insurance credit scores were permitted and the disclosures to consumers of their method of usage.

In conducting the 2016 study, the Bureau updated the areas related to consumer complaints and insurer's use of credit information in rating.

EXTENT OF USE OF CONSUMER CREDIT INFORMATION/INSURANCE CREDIT SCORES

Evaluation of Insurers' Rate Filings

As part of its research for this report, the Bureau examined the private passenger automobile (PPA) insurance rate filings for the top 100 insurers representing 97.8% of the total PPA premiums in Virginia during calendar year 2015. According to these rate filings, 95 of the 100 insurers (93.5% of the PPA insurance market in Virginia) utilize consumer credit information as part of the premium calculation process or in establishing the rating tier that will be used in determining the insured's premium.

Evaluation of the Use of Insurance Credit Scores

A number of these insurers have filed insurance credit score models. The term insurance credit score is defined in subsection J of § 38.2-2234 of Title 38.2 of the Code of Virginia to mean "a number or rating that is derived from an algorithm, computer application, model, or other process that is based in whole or in part on credit information for the purposes of predicting the future insurance loss exposure of an individual applicant or insured for or under a policy of motor vehicle insurance, as defined in § 38.2-2212, issued or delivered in this Commonwealth."

Of the 100 filings discussed above, 95 included an insurance credit score model. Of the 95 insurance credit score models, 46 were developed by a third party, 37 were developed by the insurer, and the source or developer of the models in 12 of the filings could not be determined.

In its 1999 study of the use of credit in underwriting, the Bureau reported that insurers representing 89% of the PPA market in Virginia responded to the survey; and of these respondents, 50 insurers (47% of the respondents representing 36% of the PPA market in Virginia) indicated that they used credit reports as part of their new business underwriting process. Twenty-six insurers (25% of the respondents representing 8% of the PPA market in Virginia) indicated that they use credit reports as part of their renewal business underwriting process. Of the companies that indicated that they use credit reports in underwriting, 31 used a scoring model developed by a third party vendor; 9 used a scoring model developed by their own company; and 11 looked at credit reports but did not use a scoring model.

As recommended in the 1999 report, the Bureau updated the survey in 2001 and found:

(i) the number of insurers utilizing credit reports as a part of their new business underwriting process increased to 75 insurers (63% of the respondents representing 73% of the PPA market in Virginia);

(ii) the number of insurers utilizing credit reports as a part of their renewal business underwriting process remained unchanged; and

(iii) of the insurers responding to the survey, 48 used a scoring model developed by a third party vender and 18 used a scoring model developed by their own company. Nine insurers looked at consumer credit reports, but did not use a model.

More insurers used credit-related information in 2001 than in 1999. The trend has continued. The percentage of insurers developing their own insurance credit score models has also increased significantly since 1999.

EXAMINE §§ 38.2-2212, 38.2-2213, AND 38.2-2234 OF THE CODE OF VIRGINIA TO DETERMINE IF THOSE PROVISIONS UNFAIRLY BURDEN MOTOR VEHICLE INSURANCE POLICYHOLDERS

Discussion of §§ 38.2-2212, 38.2-2213, and 38.2-2234

Having established the extent of the use of insurance credit scores in rating PPA insurance policies in Virginia, the Bureau next considered §§ 38.2-2212, 38.2-2213, and 38.2-2234 of the Code of Virginia to determine if those provisions unfairly burden motor vehicle insurance policyholders.

The provisions of § 38.2-2212 pertaining to the use of consumer credit information are stated, in part, below:

> <u>§ 38.2-2212. Grounds and procedure for cancellation of or refusal to renew motor vehicle insurance policies; review by Commissioner.</u>
>
> Subdivision C.1.r states, in part, that no insurer shall refuse to renew a motor vehicle insurance policy solely because of any one or more of the following factors - Credit information contained in a "consumer report," as defined in the federal Fair Credit Reporting Act, 15 U.S.C. § 1681 et seq., bearing on a natural person's creditworthiness, credit standing or credit capacity. If credit information is used, in part, as the basis for the nonrenewal, such credit information shall be based on a consumer report procured within 120 days from the effective date of the nonrenewal. The provisions of this subdivision shall apply only to insurance purchased primarily for personal, family, or household purposes.

The provisions of § 38.2-2213 pertaining to the use of consumer credit information are stated, in part, below:

§ 38.2-2213. Discrimination in issuance of motor vehicle insurance.

> No insurer or agent shall refuse to issue a motor vehicle insurance policy as defined in § 38.2-2212 solely because of any one or more of the following factors: the age, sex, residence, race, color, creed, national origin, ancestry, marital status, or lawful occupation, including the military service, of the person seeking the coverage. Nothing in this section prohibits any insurer from limiting the issuance of motor vehicle insurance policies to those who are residents of this Commonwealth nor does this section prohibit any insurer from limiting the issuance of motor vehicle insurance policies only to persons engaging in or who have engaged in a particular profession or occupation, or who are members of a particular religious sect. Nothing in this section prohibits any insurer from setting rates in accordance with relevant actuarial data.

The provisions of § 38.2-2234 set forth the conditions pertaining to when consumer credit information and insurance credit scores may be used and the disclosures required by the issuing insurer. This statute was enacted during the 2003 Virginia General Assembly Session (Chapter 543 and Chapter 553 of the 2003 Acts of Assembly) and has been applicable to policies issued or renewed in Virginia since January 1, 2004 and April 1, 2004, respectively.

The three statutes cited in the study request include many consumer protections. For example, the provisions of § 38.2-2212 prohibit insurers from refusing to renew PPA insurance policies based solely on credit. The provisions of § 38.2-2213 prohibit insurers from refusing to issue PPA insurance policies based solely on factors clearly identified as discriminatory, including age, sex, residence, race, color, creed, national origin, ancestry, marital status, or lawful occupation, including military service, of the person seeking coverage. It is important to note, however, that this statute permits insurers to set rates in accordance with relevant actuarial data. The provisions of § 38.2-2234 set forth the conditions and disclosure requirements of insurers utilizing consumer credit information and insurance credit scores. The provisions of this statute also (i) require insurers to update consumer credit information every three years or more frequently if the insured requests an earlier update; (ii) prohibit certain factors from being used to determine an insurance credit score, which include disputed credit information, insurance inquiries and non-consumer initiated inquiries, medical trade lines, income, gender, address, zip code, ethnic group, race, color, religion, marital status, nationality, and total available line of credit; and (iii) limit how certain inquiries made on an insured's consumer credit report can be used.

Determining whether the provisions of these statutes unfairly burden PPA insurance policyholders involves, to the extent possible, evaluating the extent to which consumers are impacted by the use of consumer credit information. The Consumer Services Section tracks complaints and inquiries from consumers. This information is often useful in determining the extent to which policyholders are impacted by the provisions of statutes and market practices.

Evaluation of Consumer Complaints and Inquiries

For this report, the Bureau evaluated written complaints filed during the two year period beginning July 1, 2014, and ending June 30, 2016. The results are as follows:

- 3,402 written consumer complaints were received;
- 1,873 of the 3,402 were attributed to motor-vehicle related issues;
- 14 of the 1,873 involved issues related to credit;
- Of the 14 complaints received:
    - one involved inaccurate information on a credit report (removed by the insurer after review determined a computer error caused the inaccuracy)
    - one involved an allegation regarding use of medical collections credit information (the insured was provided information on how to appeal the negative information with the insurer)
    - twelve were for use of credit in determining the amount of premium charged for the policy (one was recalculated at the request of the insured resulting in a reduction in premium; one was provided information by the insurer substantiating the use of credit information; and 10 were calculated in accordance with the insurer's rates and rules on file with the Bureau)

A similar review of the number of written credit-related complaints was conducted for the two year period ending in August 2010. There were 45 written complaints related to credit during that period.

Using the number of written complaints and inquiries received over these two periods as a measure, it would be difficult to conclude that PPA insurance policyholders are unfairly burdened by insurers' use of consumer credit information or insurance credit scores.

In addition to written complaints received, the Bureau tracks the number of phone inquiries. While only a small percentage of these consumers actually file written complaints, the fact that they contact the Bureau could reveal issues regarding the use of consumer credit information that might not be reflected in the written complaint information provided above. In the two-year period, July 1, 2014 through June 30, 2016, for which the Bureau evaluated written complaint information related to consumer credit usage, the Consumer Services Section received more than 14,000 telephone calls from insureds. Because consumer inquiries are not tracked with the same level of detail as written complaints, the Bureau documented information relating to calls pertaining to credit during the month of April 2016 in order to determine the number of inquiries related to the use of consumer credit information. During this 30-day period, the Bureau received 587 telephone inquiries. Of the 587, three involved concerns regarding the use of credit-related information.

Using the number of telephone inquiries received in April as a measure, it would be difficult to conclude that Virginia policyholders are unfairly burdened by the use of consumer credit information or insurance credit scores.

EVALUATING THE USE OF CONSUMER CREDIT INFORMATION INSTEAD OF DRIVING RECORD OR OTHER FACTORS PROXIMATELY RELATED TO THE OPERATION OF A MOTOR VEHICLE IN SETTING PREMIUMS OR RATING TIERS

Based on a review of the filings of the top writers of PPA insurance in Virginia as discussed above, these insurers continue to use the traditional rating factors, such as age, gender, marital status, driving record, vehicle type and use, miles driven, garaging location, etc. These traditional rating factors have long-standing, established actuarial credibility.

The filings also demonstrate that consumer credit information is not the sole rating variable or risk characteristic used to determine insurance premiums and assign rating tiers in Virginia.

There are no readily available Virginia statistics that provide the Bureau with information detailing how many consumers pay more, less, or are not impacted by the traditional rating factors or the use of consumer credit information. Through literature and articles, the insurance industry often asserts that more policyholders are charged lower premiums or the same premiums based on the use of consumer credit information than are charged higher premiums. Consumer advocates criticize credit-based insurance scores on the grounds that there is no persuasive reason that a consumer’s credit history should help predict losses and that, moreover, the use of consumer credit information results in low-income and minorities paying higher premiums than other consumers.

Arkansas Reports

The Arkansas Insurance Department publishes an annual study report detailing the impacts of the use of credit in rating insurance policies for several different lines of personal insurance, including auto insurance policies. The Arkansas study does not evaluate whether the use of consumer credit information is more appropriate than reliance on traditional rating factors to set auto insurance rates. Its stated purpose is to outline the effect of credit use on consumers of personal insurance.

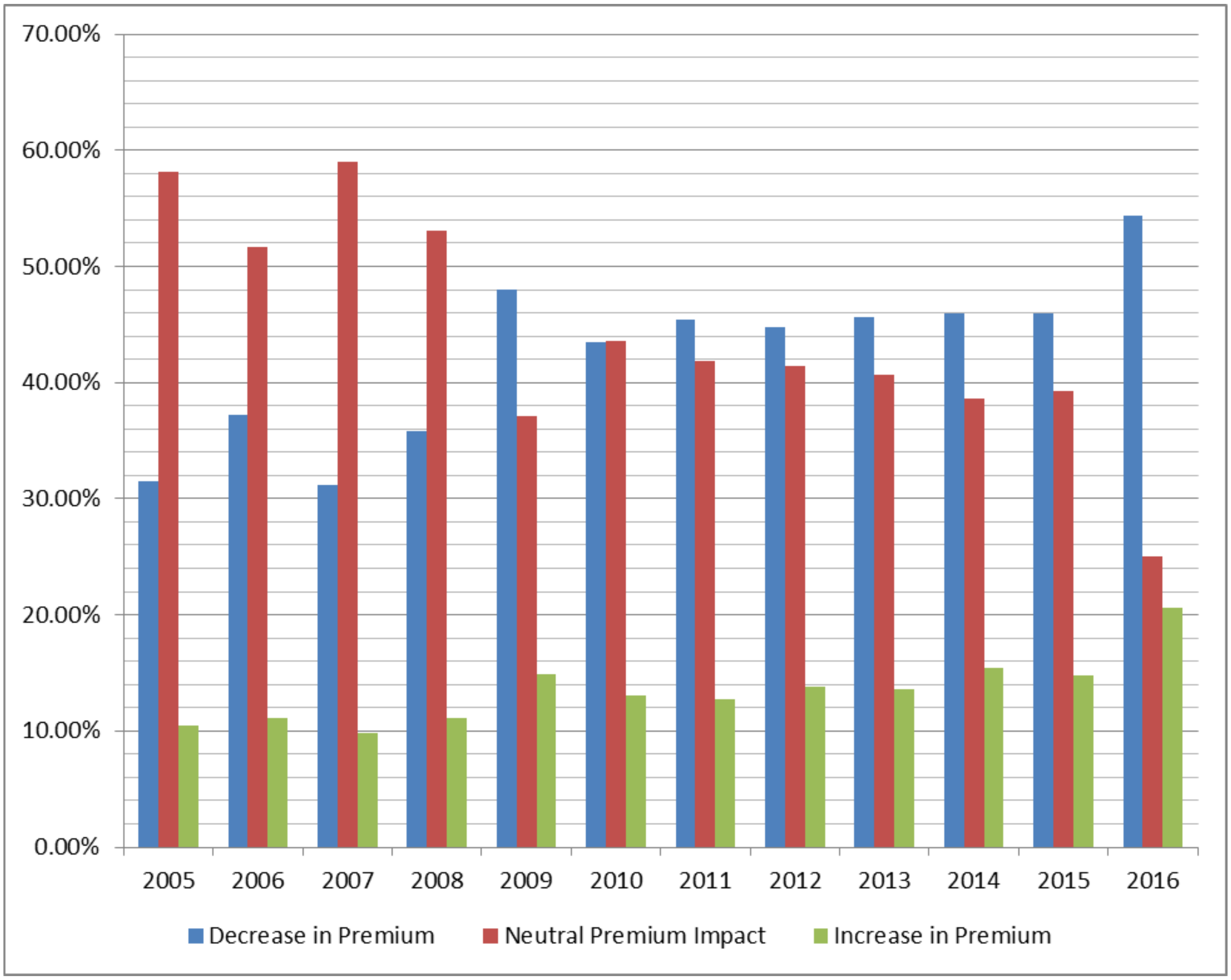
This Arkansas report is produced from information required to be filed by all property and casualty insurers using consumer credit information and writing personal lines insurance in Arkansas. Personal lines insurance as defined in the reporting requirement includes private passenger automobile, homeowners, motorcycle, non-commercial dwelling fire, non-commercial farm owners, personal watercraft, boat, snowmobile, and recreational vehicle insurance. The data requested allows the measurement of how many insurers use credit in rating and what percentage of the customer base received a premium decrease, a premium increase, or no effect on premiums.

According to the 2016 Arkansas study, insurers writing 88.4% of the personal lines insurance premiums in 2015 utilized credit in determining final premiums. The insurers reported that 54.3% of the personal auto policies they wrote received decreased premiums, 25% received no change in the final premiums, and 20.6% received increased premiums. For all lines of personal insurance, it was stated that 82% of consumers either received a discount for credit or it had no effect on their premium.[1]

An examination of Arkansas reports for previous years shows that since 2005, the percentage of premiums written by insurers using credit has not changed significantly. As Chart 1 shows, the percentage of policies with a premium decrease has grown from 31.5% in 2005 to 52.4% in 2016 (blue bars). The number of policies with a premium increase has grown from 10.5% in 2005 to 18% in 2016 (green bars). The policies with no premium impact are represented by the red bars.

[1] Use and Impact of Credit in Personal Lines Insurance Premiums pursuant to Ark. Code Ann. § 23-67-415, June 6, 2016, page 3.

Chart 1



From the Arkansas data, the majority of the insurance purchasing population receives lower rates due to the use of credit in rating (54.3%), and the vast majority (79.4%) receives lower or no change in their personal auto insurance premiums as a result of insurers' use of credit.

Studies that test the correlation between consumer credit information and insurers' loss experience

As part of its evaluation of the appropriateness of using consumer credit information and insurance credit scores in underwriting, the Bureau collected and reviewed a number of studies, conducted over the past 20 years, that discuss whether consumer credit information is predictive of future losses. The reports reviewed are summarized below.

1996 – National Association of Insurance Commissioners' White Paper

In 1996, the National Association of Insurance Commissioners' Market Conduct and Consumer Affairs (EX3) Subcommittee requested that the NAIC prepare a white paper concerning credit as an underwriting tool. The report recognized that even in 1996 there was considerable controversy about the correlation between credit history and risk of loss. The report also expressed concern for the way that insurers might use credit reports or credit information as the sole underwriting tool to determine insurability, ignoring factors that are more traditional. There were also concerns over the accuracy of credit characteristics that went into forming the credit-based insurance scores. The report's Appendix included a study performed by Tillinghast-Towers Perrin (Tillinghast) that supported a relationship between credit-based insurance scores and loss ratio. The Tillinghast study performed a univariate analysis by dividing credit-based insurance scores into deciles and then looking at loss ratio relativity for each decile. Tillinghast compared credit-based insurance scores to loss ratio relativity geographically in an attempt to illustrate that lower scores were associated with higher loss ratio relativities, which was the stated conclusion. The NAIC report called for a multivariate analysis in order to determine the effect of credit-based insurance scores while factoring for all other risk factors.

The Tillinghast-Towers Perrin study cited in the 1996 NAIC white paper's appendix was commissioned in 1996 by Fair Isaac[2] (Fair, Isaac), a software company based in California, to independently validate the relationship between insurance bureau scores and loss ratio relativities.

1999 – Productiveness of Credit History for Insurance Loss Ratio Relativities

Fair, Isaac also documented the development and testing of the relationship between credit characteristics and loss ratio performance during the late 1980s and early 1990s. Fair, Isaac reported that insurance scores based on credit data enable insurers of all sizes to improve the speed, objectivity and consistency of their underwriting. In addition, the study stated that the correlation between credit information and insurance loss potential can be empirically demonstrated on a characteristic-by-characteristic basis and that the power of insurance bureau scores in forecasting loss ratios has been validated by independent agencies such as Tillinghast-Towers-Perrin as well as by Fair Isaac.[3]

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[2] Originally called Fair, Isaac and Company, the name was changed to Fair Isaac Corporation in 2003 and to FICO in 2009.

[3] Fair Isaac, "Predictiveness of Credit History for Insurance Loss Ratio Relativities," October 1999, p. 26.

2000 – The Impact of Personal Insurance Credit History on Loss Performance in Personal Lines

This 2000 report was prepared by insurance company actuary James E. Monaghan. In this study, multivariate analyses were performed which demonstrated that different credit profiles predict different loss ratios, even when other factors such as driving record and age of the driver were held constant. The author found that eight credit information variables were shown to have strong power to predict loss ratios, demonstrating correlation between certain credit information at the time a policy is written as new business, and future loss ratios. He also found that the statistical models did not demonstrate causality. Mr. Monaghan provided an explanation of causality and its relation to actuarial standards, as well as public policy issues important to the acceptance of the use of consumer credit information.[4]

2003 – A Statistical Analysis of the Relationship Between Credit History and Insurance Losses – University of Texas at Austin

In its 2003 study, the University of Texas at Austin measured the relationship between credit-based insurance scores and losses. The study tested whether a named insured's credit score on a policy was related to the policy's incurred losses. The study found that the lower the credit score, the higher the probability of incurred and expected losses on the policy. The authors believed that new information not covered by existing underwriting variables was produced by utilizing credit-based insurance scores.[5]

2003 – The Relationship of Credit-Based Insurance Scores to Private Passenger Automobile Insurance Loss Propensity

In 2003, EPIC Actuaries, LLC, (EPIC) was retained by the Alliance of American Insurers, the American Insurance Association, the National Association of Independent Insurers, and the National Association of Mutual Insurance Companies to conduct an actuarial analysis of the relationship of credit-based insurance scores to the propensity of loss for private passenger automobile insurance. In addition to the correlation study, EPIC was requested to study the extent to which credit-based insurance scores may measure risk that is already being measured by other risk factors and to study the relative importance of credit-based insurance scores to accurate risk assessment. The study found that (i) insurance scores were correlated with the propensity for loss, primarily due to a correlation between insurance scores and claim frequency rather than a correlation between insurance scores and average claim severities; (ii) insurance scores do overlap to some degree with other risk characteristics, but after fully accounting for all interrelationships, significantly increase the

[4] Monaghan, James E., "The Impact of Personal Insurance Credit History on Loss Performance in Personal Lines," 2000, Casualty Actuary Society Forum-Winter: 79-19-05.

[5] Kellison, Bruce, Patrick Brockett, Seon-Hi Shin, and Shihong Li, "A Statistical Analysis of the Relationship Between Credit History and Insurance Losses," Bureau of Business Research, University of Texas at Austin, 2003

accuracy of the risk assessment process; and (iii) insurance scores were among the three most important factors for the automobile coverages studied.[6]

2003 – Does Credit Score Really Explain Insurance Losses? Multivariate Analysis from a Data Mining Point of View

This 2003 study, published in the proceedings of the Casualty Actuarial Society, reviewed what the authors believed to be the only two actuarial studies that evaluated the impact of credit-based insurance scores on insurance losses and profitability. The study criticized the Tillinghast-Towers Perrin study for the univariate base of analysis while giving more credence to the Monaghan study, reminding researchers that "A multivariate statistical analysis is necessary to establish the importance of credit for personal auto ratemaking."[7]

2004 and 2005 – "Use of Credit Information by Insurers in Texas: The Multivariate Analysis" (Jan. 31, 2005) and Texas Department of Insurance, "Use of Credit Information by Insurers in Texas" (Dec. 30, 2004)

In 2004 and 2005, studies were conducted by the Texas Department of Insurance regarding relationships between credit-based insurance scores and risk propensity for automobile and homeowner insurance policies. The study was based on data obtained from six large insurers, the Texas Department of Public Safety, median income data by ZIP code, and a Hispanic surname match. The report stated that insurers paid out less on auto policies for higher score customers because they filed fewer claims than lower score customers. A multivariate analysis found that credit-based insurance scores were correlated with losses even after factoring for other variables. The report found that the losses of the 10 percent of policyholders with the worst credit scores were 1.5 to 2 times more than the losses of the 10 percent of policyholders with the best credit scores.[8]

2007 – Credit-based Insurance Scores: Impacts on Consumers of Automobile Insurance

In July 2007, the Federal Trade Commission (FTC) produced a report required by Congress regarding whether credit-based insurance scores affect the availability and affordability of automobile insurance. A similar report was requested regarding homeowners insurance, but as of August 2016, has not been released. Using data from the same five insurers that provided data for the EPIC study cited above, the FTC combined the insurer's data with race and income data by ZIP code. After dividing the scores into deciles, the FTC

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[6] Miller, Michael J. and Richard A. Smith, "The Relationship of Credit-Based Insurance Scores to Private Passenger Automobile Insurance Loss Propensity An Actuarial Study" by EPIC Actuaries, LLC, 2003

[7] Wu, Cheng-Sheng Peter and James C. Guszcza, "Does Credit Score Really Explain Insurance Losses? Multivariate Analysis from a Data Mining Point of View," 2003, Proceedings of the Casualty Actuarial Society 113-138

[8] Texas Department of Insurance, "Use of Credit Information by Insurers in Texas: The Multivariate Analysis" (Jan. 31, 2005) and Texas Department of Insurance, "Use of Credit Information by Insurers in Texas" (Dec. 30, 2004)

found that the average number and size of claims fell as scores rose, even when controlling for age and driving history. The FTC found that credit-based insurance scores were also correlated with loss ratios, although not as strongly. The FTC reported that credit based insurance scores were "effective predictors" of the number and total cost of automobile claims. The report was not able to determine causation of why credit-based scores were effective predictors of risk. The FTC report claims that credit-based insurance scores may have benefits to consumers. Through the use of these scores, companies are able to measure risk more accurately, which may lead insurers to offer insurance to higher-risk consumers. Insurers may also be able to offer coverage more efficiently and more cheaply, passing along savings to consumers. No quantifiable benefits were reported. [9]

These studies lend support to the insurance industry's premise regarding the predictive power associated with consumer credit information and insurance credit scores. Further, the statistically-demonstrated correlation between credit losses renders it actuarially appropriate for insurers' consideration in premium determination and tier assignment based on Virginia law.

EVALUATING WHETHER THE USE OF CONSUMER CREDIT INFORMATION IN SETTING INSURANCE PREMIUMS AND TIER RATINGS DISCRIMINATES AGAINST POORER OR YOUNGER PEOPLE WHO EITHER HAVE HAD CHALLENGES WITH CREDIT OR HAVE NO CREDIT HISTORY.

The Bureau has reviewed both its past study of the use of credit in underwriting and numerous other studies published prior to and since 1999 to aid in determining whether the use of consumer credit information discriminates against poorer or younger people.

To assist the Bureau in preparing its 1999 report, a major credit scoring modeling company provided data for the purpose of performing an analysis to determine whether a correlation exists between credit scores and population demographic data (e.g. income and race) identified by zip code. This analysis was prompted by comments from agents that the use of credit scores is actually a form of redlining, which is an unlawful practice in most states. The Bureau analyzed the relationship between credit scores and income as well as the relationship between credit scores and race. The Bureau concluded that income or race alone was not a reliable predictor of credit scores thus making the use of credit scoring an ineffective tool for redlining.

A study published in 2001 by Conning & Company, **Insurance Scoring in Personal Automobile Insurance – Breaking the Silence**, [10] provided a summary of how insurers use credit-based insurance scores in underwriting and pricing. The report did not include original

[9] Federal Trade Commission, "Credit-Based Insurance Scores: Impacts on Consumers of Automobile Insurance," 2007

[10] Conning & Company, "Insurance Scoring in Personal Automobile Insurance – Breaking the Silence," 2001.

data, but reviewed some of the existing literature showing a correlation between credit-based insurance scores and loss ratio performance. The report noted that some credit quality measures are clearly correlated with lower income households.

In a 2003 report to the State of Washington Legislature, Washington State University examined whether credit-based insurance scoring had unequal impacts on certain demographic groups. Telephone survey data was obtained from three auto insurers for several thousand consumers. The study found that age was the most significant factor, reporting that older drivers, on average, had higher credit-related insurance scores and more likelihood of having a valid credit score than younger drivers. The study also found that people in the lowest income categories had lower insurance scores and many also lacked the credit history necessary to have a credit score.[11]

A 2004 insurer ZIP code data analysis conducted in Maryland found that there was insufficient data to determine what effect credit-based insurance scores have on low-income or minority populations due to the fact that insurers do not collect data regarding an applicant's race or income.[12]

Another 2004 study, described as one of the most comprehensive state studies measuring the potential effects of credit-based insurance scores on various socioeconomic groups, was authored by Brent Kabler, Ph.D. of the Missouri Department of Insurance, Financial Institutions and Professional Registration (DIFP). Using ZIP code data from 12 large insurers, the study examined a bivariate relationship between credit score deciles and minority populations and per capita income. A multivariate analysis considering race/ethnicity and income was also performed. The study found that credit-based insurance scores were correlated with the examined characteristics of ZIP codes. The author reported that the use of credit-based insurance scores lead to significantly worse scores for residents of high-minority and low-income ZIP codes.[13]

In a 2004 rebuttal of the Missouri DIFP's study, criticism was levied that the study "ignores the fact that the variation of scores between individuals will dwarf any differences among average scores by race, income, or ZIP code. We expect that an analysis which accounted for the variation of scores among individuals would show virtually no relationship between insurance scores and race or income."[14]

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[11] "A Report to the Legislature, Effect of Credit Scoring on Auto Insurance Underwriting and Pricing," Washington Office of Insurance Commissioner, Prepared by: Washington State University, Social & Economic Sciences, Research Center, Dave Pavelchek, PRR Inc. Bruce Brown, January 2003

[12] Maryland Insurance Administration, "Report on the Credit Scoring Data of Insurers in Maryland," 2004

[13] Kabler, Brent, "Insurance-Based Credit Scores: Impact on Minority and Low Income Populations in Missouri," 2004

[14] Miller, Michael J. and Richard A. Smith, 2004, "A Critique Of: 'Insurance-Based Credit Scores: Impact on Minority and Low-Income Populations in Missouri.'"

In the 2004 and 2005 studies conducted by the Texas Department of Insurance regarding relationships between credit-based insurance scores and risk propensity for automobile and homeowner insurance policies cited above, it was reported that African Americans and Hispanics tended to have lower credit-based insurance scores than Asians and whites. African Americans combined to make up over 60% of the worst credit scores but only around 10% of the best credit scores. No consistent results were found for income. [15]

In the July 2007 Federal Trade Commission report cited above, the FTC found that African Americans and Hispanics were overrepresented in the lowest score deciles and underrepresented in the highest score deciles. In spite of this, the FTC reported that there was only a small proxy effect for membership in racial groups and that the relationship between scores and claims risk remained strong even when controlling for race, ethnicity, and income. It was also reported that the FTC could not develop a credit-based insurance scoring model that would effectively predict risk with decreased differences in scoring among racial groups or low income consumers. It should be noted that in spite of the reporting of the small proxy effect, the FTC did report that the data showed that certain minority groups could be adversely impacted by the use of credit-based insurance scores.

Most recently, the Georgetown University Law Center published a report titled "**Do Credit-Based Insurance Scores Proxy for Income in Predicting Auto Claim Risk?"** In this 2016 report, the authors offer new evidence on whether credit-based insurance scores are a proxy for income in predicting auto claim risk. By analyzing a panel of households who purchased auto and home policies for a U. S. insurance company, the authors were able to employ two measures of income not contemplated in prior studies that relied solely on aggregate measures of income such as median income in a census tract or ZIP code. By observing a household's home policy as well as its auto policy, an aggregate measure of income (median income in the household's census tract) was produced in addition to a policyholder level of measure (the insured value of the household's dwelling). The authors found that an insurance score does not act as a proxy for income in a standard model of auto claim risk.[16]

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[15] Texas Department of Insurance, "Use of Credit Information by Insurers in Texas: The Multivariate Analysis" (Jan. 31, 2005) and Texas Department of Insurance, "Use of Credit Information by Insurers in Texas" (Dec. 30, 2004)

[16] Morris, Darcy Steeg, U.S. Census Bureau, Schwarcz, Daniel, Univ. of Minn., and Joshua C. Teitelbaum, Georgetown University, "Do Credit-Based Insurance Scores Proxy for Income in Predicting Auto Claim Risk?", October 2015.

CONCLUSION

1. Using the low number of Virginia consumer complaints and inquiries related to the use of consumer credit information as a measure, it would be difficult to conclude that the provisions of §§ 38.2-2212, 38.2-2213, and 38.2-2234 of the Code of Virginia unfairly burden motor vehicle insurance policyholders.

2. The various studies detailing the correlation of consumer credit information to loss ratios indicate that a fairly strong relationship exists between credit-based insurance scores and losses. Based on this relationship, the use of consumer credit information in setting insurance premiums and tier ratings is not inappropriate, especially if combined with other traditional rating variables as is the case in Virginia. In addition, the Arkansas reports support the premise that there are benefits to the use of credit-based insurance scores for a majority of insureds. It is also important to note that actuarial principals allow the use of factors for risk classification that do not exhibit a cause-and-effect relationship[17,] thus allowing the continued use of consumer credit information in Virginia under the current insurance rating laws.

3. It is less apparent from the literature and studies reviewed whether the use of consumer credit information in setting insurance premiums and tier ratings discriminates against poorer or younger people who either have had challenges with credit or have no credit history. However, the Virginia Code provides certain protections (i.e., §§ 38.2-2234.C and 38.2-2234.F) that are designed to limit the impact of consumer credit information on any individual who has no credit history or experiences a direct impact on credit from catastrophic events, regardless of age or economic status.

[17] Actuarial Standard of Practice No. 12 states that causality cannot be made a requirement for risk classification systems. It is sometimes impossible or impractical to prove cause-and-effect relationships. Risk classes should be neither obscure nor irrelevant, but they need not exhibit a cause-and-effect relationship.

Recommendations

The Bureau will continue to monitor published literature and studies for a definitive determination of a disproportionate impact on any protected class when controlling for other rating differences with no business necessity for the practice. At such time as published literature and studies so indicate, the Bureau will make appropriate recommendations to restrict or eliminate the use of consumer credit information in rating auto insurance in Virginia.

The Bureau will also continue to monitor consumer complaints related to the use of consumer credit, and will continue to monitor insurers' use of consumer credit information in rating and tiering auto insurance policies in Virginia. The Bureau will report significant changes in the usage of consumer credit information to the Virginia General Assembly if large impacts on Virginia policyholders are observed or anticipated.

2015 SESSION

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HOUSE JOINT RESOLUTION NO. 594

Requesting the Bureau of Insurance to study the use by insurers of an insured's or applicant's credit information in connection with underwriting motor vehicle insurance policies. Report.

Agreed to by the House of Delegates, February 9, 2015 Agreed to by the Senate, February 24, 2015

WHEREAS, Virginia law permits an insurer issuing or delivering a policy of motor vehicle insurance in the Commonwealth to use credit information contained in a consumer report as one factor for underwriting, tier placement, or rating an applicant or insured if certain disclosure and other requirements are met; and

WHEREAS, the insurance industry has asserted that actuarial studies illustrate that an individual's ability to manage his financial affairs is a predictor of insurance claims, that scores based on a person's credit history help insurers differentiate between lower and higher insurance risks, and that individuals who have a poor credit history are more likely to file a claim; and

WHEREAS, a Federal Trade Commission study released in 2007, in which more than two million automobile policies were examined, found that while credit-based insurance scoring was an effective predictor of risk and is useful in setting premiums to match the level of risk, it lacked sufficient evidence to explain the correlation between claims and credit history; and

WHEREAS, it has been asserted that provisions authorizing insurers to use credit-based insurance scores when setting premiums for a motor vehicle insurance policy are improper because the practice is not based on a plausible relationship between the characteristics of a class and the hazard insured against, that the use of credit-based insurance scores is unfair because credit scores may be affected by factors that cannot be controlled by the consumer, that the use of credit scores is a proxy to rating based on race or income, and that credit-based insurance scores can be manipulated and therefore are arbitrary; and

WHEREAS, it is not intuitively obvious that an individual's credit history should be permitted to be used as a factor in determining the premiums for motor vehicle insurance, and factors such as an individual's driving record and other data derived from operating a motor vehicle may be more reliable predictors of the actual risk proximate to an insurance policy; and

WHEREAS, a study of whether the use of credit history in setting motor vehicle insurance costs is appropriate could increase public understanding of the issue; now, therefore, be it

RESOLVED by the House of Delegates, the Senate concurring, That the Bureau of Insurance be requested to study the use by insurers of an insured's or applicant's credit information in connection with underwriting motor vehicle insurance policies.

In conducting its study, the Bureau of Insurance shall (i) examine §§ 38.2-2212, 38.2-2213, and 38.2-2234 of the Code of Virginia to determine if those provisions unfairly burden motor vehicle insurance policyholders; (ii) determine whether the use of consumer credit information, rather than relying on the insured's or applicant's driving record and other factors proximately related to risks of operating a motor vehicle, in setting insurance premiums and tier ratings is appropriate; and (iii) determine whether the use of consumer credit information in setting insurance premiums and tier ratings discriminates against poorer or younger people who either have had challenges with credit or have no credit history.

Technical assistance shall be provided to the Bureau of Insurance by the Department of Motor Vehicles. All agencies of the Commonwealth shall provide assistance to the Bureau of Insurance for this study, upon request.

The Bureau of Insurance shall submit a report of its findings and recommendations to the Chairmen of the House Committee on Commerce and Labor and the Senate Committee on Commerce by October 1, 2016.

Appendix 2 – Source Information

Cited in the Study

Use and Impact of Credit in Personal Lines Insurance Premiums pursuant to Ark. Code Ann. § 23-67-415, June 6, 2016: http://www.insurance.arkansas.gov/index_htm_files/2016Credit.pdf

"Predictiveness of Credit History for Insurance Loss Ratio Relativities," October 1999: http://market360online.com/sqlimages/1261/45284.pdf

"The Impact of Personal Insurance Credit History on Loss Performance in Personal Lines," 2000, Casualty Actuary Society Forum-Winter: www.casact.org/pubs/forum/00wforum/00wf079.pdf

A Statistical Analysis of the Relationship Between Credit History and Insurance Losses," Bureau of Business Research, University of Texas at Austin, 2003: https://repositories.lib.utexas.edu/bitstream/handle/2152/14798/bbr-2003-credit-and-insurance-losses.pdf;sequence=5

"The Relationship of Credit-Based Insurance Scores to Private Passenger Automobile Insurance Loss Propensity AN Actuarial Study" by EPIC Actuaries, LLC, 2003: http://www.ask-epic.com/Publications/Relationship%20of%20Credit%20Scores_062003.pdf

"Does Credit Score Really Explain Insurance Losses? Multivariate Analysis from a Data Mining Point of View," 2003, Proceedings of the Casualty Actuarial Society: http://www.casact.org/pubs/forum/03wforum/03wf113.pdf

"Use of Credit Information by Insurers in Texas: The Multivariate Analysis" (Jan. 31, 2005) and Texas Department of Insurance, "Use of Credit Information by Insurers in Texas" (Dec. 30, 2004): **http://www.tdi.texas.gov/reports/documents/creditall04.pdf** and http://tdi.texas.gov/reports/documents/credit05sup.pdf

"Credit-Based Insurance Scores: Impacts on Consumers of Automobile Insurance," 2007: https://www.ftc.gov/sites/default/files/documents/reports/credit-based-insurance-scores-impacts-consumers-automobile-insurance-report-congress-federal-trade/p044804facta_report_credit-based_insurance_scores.pdf

"Insurance Scoring in Personal Automobile Insurance – Breaking the Silence," 2001: http://www.conning.com/viewpublications-article.aspx?id=1649

"A Report to the Legislature, Effect of Credit Scoring on Auto Insurance Underwriting and Pricing," Washington Office of Insurance Commissioner, Prepared by: Washington State University, Social & Economic Sciences, Research Center, Dave Pavelchek, PRR Inc. Bruce Brown, January 2003: http://www.insurancescored.com/Final_SESRC_Report.pdf

Maryland Insurance Administration, “Report on the Credit Scoring Data of Insurers in Maryland,” 2004:
http://insurance.maryland.gov/Consumer/Appeals%20and%20Grievances%20Reports/2004creditscoringreportplusex1rev.pdf

“Insurance-Based Credit Scores: Impact on Minority and Low Income Populations in Missouri,” 2004: http://insurance.mo.gov/reports/credscore.pdf

“A Critique Of: Insurance-Based Credit Scores: Impact on Minority and Low-Income Populations in Missouri.”: http://www.ask-epic.com/Publications/A%20Critique.pdf

“Do Credit-Based Insurance Scores Proxy for Income in Predicting Auto Claim Risk?”, October 2015:
http://scholarship.law.georgetown.edu/cgi/viewcontent.cgi?article=2530&context=facpub