SUPPLEMENTAL MATERIALS

OF

AMERICAN INSURANCE ASSOCIATION

ON

CREDIT-BASED INSURANCE SCORING

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DEFINING KEY TERMS THAT CAME UP REPEATEDLY IN THE HEARING

During the April 30, 2009, NAIC hearing on credit-based insurance scoring (CBIS), discussion turned from the present economic climate to social propriety of CBIS. "Discrimination," "proxy," "disparate impact," "proxy effect," "unfair discrimination," and "disproportionate impact" – there are many concepts that arise in this context. While they may on the surface seem like subtle differences, it is crucial for all those involved in discussing the policy and legal issues to have a common vocabulary on this important aspect of the issue.

We caution that no statement included herein may be taken out of context. This is a summary, not exhaustive treatment, of the subject, which we reserve the right to supplement at any time.

Discrimination / Intentional ("Overt") Discrimination

Definition

A definition for the commonly understood meaning of discrimination is found at dictionary.com: "treatment or consideration of, or making a distinction in favor of or against, a person or thing based on the group, class, or category to which that person or thing belongs rather than on individual merit."

Discussion

Because intentional ("overt") discrimination occurs when a person is treated a particular way based on a prohibited factor and because insurers do not use race, a prohibited factor, in underwriting and rating, intentional ('overt") discrimination is not relevant to the CBIS discussion.

Proxy

Definition

A "proxy" is typically understood as one factor substituting for another. In the context of this discussion, the relevant questions would be does credit or CBIS stand in the place of a prohibited factor like race or is one able to determine a person's race by seeing her insurance score? The FTC framed this by providing that whether CBIS is a proxy for race, ethnicity or income hinges on whether

"Disproportionate impact" refers to the pure statistical impact differences. Some may also refer to this as "disparate impact," but a full disparate impact analysis goes further and it may simplify the discussion to refer to the statistical-only difference as "disproportionate impact." The Federal Reserve study refers to this concept as "differential effect."[2]

Discussion

This is not a legal or actuarial concept. Indeed, it governs the sale of no product or service in our economy.

Proxy Effect

Definition

The term "proxy effect" differs from "proxy." It is not in FACTA nor is it commonly used in statistical, legal, or actuarial fields. However, it does appear in the FTC's auto study. It seems to mean that even if there is no "proxy" – because a factor is risk related – there may be a "proxy effect" if there are score differences that cannot be explained by a factor other than race. This concept was not discussed in the parallel Federal Reserve study.

Discussion

In order to model correctly, the FTC needed some way of capturing the geographic risk. The insurers that provided the data for the FTC Study each used different territorial schemes. So the territory used for rating the policies would not work. While all the insurers could provide zip code, zip codes would be almost impossible for the FTC to use as is because there are too many to model. FTC needed to use one single scheme across all states to capture the geographic risk. In other words the FTC needed a means to group the zip codes into a reasonable number of groups with similar loss propensities. The solution required the insurers to report additional property damage data and that property damage data would be used to group the zip codes. This solution assumed that all the coverages behaved geographically very similar to property damage. It appears that assumption was incorrect.

Unfortunately, the FTC attempted to measure a "proxy effect" with more precision than its database would allow. Such a precise measurement would require the ability to precisely control the study for all non-racial factors such as age, gender, marital status, tenure, mileage, and geographical location of the insured. The FTC's controls for these factors were less than ideal, and as such the FTC cannot say with any degree of certainty that it did in fact find even a small proxy effect.

For the property damage liability coverage where the FTC had the best controls for geographic risk, the FTC found no proxy effect. If the FTC had been able to control for geographic risk as accurately for all coverages as it did for the property damage liability coverage, all hints of a proxy effect would likely have disappeared.

Unfair Discrimination

Definition

The definition of "unfairly discriminatory" is tied to accurately measuring risk, meaning that rates must be cost-based and treat policyholders with equal risks equally. The standard of not being "unfairly discriminatory" is the very foundation for insurance regulation. It consumes the field in areas where a

[2] See page 54 of the Federal Reserve Board August 2007 Report to the Congress on Credit Scoring and Its effects on the Availability and Affordability of Credit.

State legislature does not otherwise deem a particular factor to be “unfairly discriminatory” via a public policy mandate.

Discussion

Every study of CBIS has found a correlation between credit-based insurance score and risk. Each of these studies has substantiated that there is actuarial justification.

State insurance laws, and indeed the principles underpinning property and casualty insurance pricing, rely on actuarial science to determine rates that most accurately measure loss potential. Actuarial science accomplishes this task by finding relationships between factors and risk of loss and then allocating costs accordingly. This is the essence of risk-based pricing. Importantly, to disregard the predictive value of a factor (1) ignores actuarial support; (2) results in better risks subsidizing worse risks; and (3) moves closer to a one-size-fits-all approach in direct conflict with risk classification standards.

Pricing programs of most insurers depend on making distinctions based upon a number of different factors. All things being equal, the one who reflects a worse risk based on this difference will pay more. To explain, the process of risk classification involves segmenting groups of individuals expected to have similar costs. The use of more segments makes for a more granular approach in which actuaries can more finely hone their review of an individual in order to more accurately create class plans and measure risk potential. When there are a greater number of risk levels and pricing variations, insureds are placed with others with a more similar risk profile, which results in a more accurate, and therefore by definition fairer price. Also, using this granular methodology, insurers are better able to offer coverage to people they might have otherwise declined.

Disparate Impact Analysis

Definition

The legal theory of disparate impact is applied on a case-by-case basis. It allows a plaintiff with no evidence of intentional discrimination to sue under certain civil rights laws[3] by alleging that a business practice, such as an employment policy, disproportionately disadvantages the members of a protected group.

A comprehensive actuarial analysis of 2.7 million auto insurance policies across the United States

EXHIBIT 1

FAIR AND ACCURATE CREDIT TRANSACTIONS ACT OF 2003

SEC. 215. STUDY OF EFFECTS OF CREDIT SCORES AND CREDIT

In the states in which AIA has recently testified on CBIS legislative proposals, the commissioners have provided the number of CBIS related consumer complaints, and they are in the few dozen annually, an impressive performance considering the millions of personal lines transactions in those states. This lack of real complaints is especially significant because under federal law a specific notice is sent to each consumer that has experienced an adverse action as a result of the use of CBIS.

The NAIC report also gives scant attention to one salient fact: the auto and homeowners markets (outside of catastrophe prone areas) are functioning quite well with generally stable prices and good availability. A major reason for this is wide use of CBIS, which allows more accurate pricing, reducing premiums for many, if not most, policyholders. In addition, availability, as demonstrated by historically low residual market populations, has improved because insurers now can insure virtually all risks because they can, with CBIS, reliably price them.

Importantly, to be credible the overarching review which comprises the first half of the report must achieve greater balance by a broader analysis of consumer attitudes, insurance department data and consumer feedback, insurer viewpoints and testimony on the efficacy of credit scoring, and studies conducted by academics.

Specific concerns with and suggestions for the report follow, with the draft language on the left and AIA's comments presented on the right:

I. Introduction

…

This paper will: provide a background on how insurers use credit-based insurance scores; detail concerns over the use of these scores; and provide a summary of what studies concerning credit-based insurance

The main reasons insurers use credit-based insurance scores include: more refined risk classifications; customer valuation to drive target marketing; pricing and underwriting proficiency; and increased retention of customers. Insurers argue that the use of credit based insurance scores is necessary to properly evaluate risk and charge individual policyholders rates that most closely align with their true risk. They go on to say that not using credit-based insurance scores could result in subsidies from lower-risk individuals to higher-risk individuals.

Please expand this section. Omitted from the benefits section is data relating to the competitiveness of the personal lines market, except perhaps for homeowners insurance in some catastrophe prone areas. Auto insurance, for example, is available everywhere at prices which are stable or lower in recent years. And, most telling, r

and numerous insurance industry representatives have touted the effects of credit-based insurance scores, none have articulated why credit-based insurance scores are related to insurance claims.

propensity, individual driver behavior, and insurance claiming behaviors and patterns. The NAIC report later mentions and reviews the Brockett and Golden study, thus the draft report is internally inconsistent.

policies to more consumers. This, too, seems counter-intuitive to some consumers as they learn they may not be offered insurance or may receive a higher rate due to some unknown credit characteristics.	CBIS, the paper chooses to emphasize the few who pay more. In addition, federal and state laws require reasons to be given for adverse actions, so the reference to "unknown credit characteristics" is factually wrong.
Many critics believe that credit-based insurance scores may actually be double counting other risk factors, meaning that the score is not directly a predictor of loss ratios, but instead the score is correlated with other data such as age and location that are already incorporated in insurers' underwriting and pricing models. In addition, credit-based insurance scores may not be measuring how responsible or careful a person is, but instead may be a proxy for identifying individuals who are unemployed, single, divorced or disabled.	This statement should be revised. It misrepresents the current debate. In this section and in several other places, the draft is misleading and inaccurate when it implies that many believe credit scoring is a surrogate for other rating or demographic factors. It gives short shrift to findings which indicate otherwise. The assertion of "many critics" here is vague, most likely outdated and probably cannot be supported, and likely refers to the same few critics. Four key studies from diverse sources (insurance actuaries, state insurance department, federal government) including the 1999 Monaghan study, EPIC actuarial study of 2003, the Texas Insurance Department studies of 2003-2005, and the FTC report of 2007 have strongly illustrated and concluded that CBIS does not materially double count other risk factors, and that it contributes an additional accuracy, efficacy, fairness, and risk-relatedness to the rating process. This is borne out by the other multivariate studies, including EPIC Actuaries.
In addition to consumer and regulator concerns, insurance agents have expressed frustrations with the use of credit-based insurance scores. Producers often cannot even provide a premium quote to a potential customer because of either the customer's low credit-based insurance score or lack of sufficient credit history. A producer may also be required to ask customer's for social security numbers in order for the insurer to obtain credit information. This can affect the relationship between agent and consumer when the agent is not able to explain why credit information is being used or how exactly it will affect the consumer's potential purchase. Some agents have also expressed frustrations over the way the use of credit-based insurance scores has seemed to prohibit agents from writing much business in a particular geographic area.	Like the "many critics" who believe CBIS double counts other risk factors, this assertion is outdated. When first introduced on a widespread scale 8-10 years ago many agents did express frustration with CBIS, but as they became more familiar with procedures, providing information to consumers, and gained knowledge about the contribution to accuracy in rating, frustration and opposition to CBIS has greatly diminished. Look to recent evidence. In a May 2008 letter to House Financial Services Committee Chairman Watt and Ranking Member Miller, several trade associations – including the Independent Insurance Agents and Brokers of America – strongly opposed a ban of scoring. They state: "CBIS are a regulated, effective, objectively verified and fair risk measurement tool. Banning or prohibiting their use would restrict consumer choice and eliminate the mechanism by which insurers provide discounts to the majority of consumers."

Even ignoring the issue of not knowing for sure why credit-based insurance scoring might help measure risk, one of the basic fundamental questions that regulators and consumer groups are concerned with is

credit history than whites were. If certain socioeconomic groups have worse credit scores in general or worse credit-based insurance scores in particular, it seems that charging higher rates to these groups leads to greater societal disparities in contrast to what is desired by society in general.	races are benefited without distinction, through the use of CBIS.
Credit-based insurance scores may also serve as a proxy for other factors that are typically not allowed by state insurance regulators. It was mentioned above that correlations between credit-based insurance scores and insurance losses may actually be due to other characteristics that are already accounted for in underwriting and rating. It may also be the case that the correlation is due to characteristics such as income or race that are typically barred by states from being used.	No legitimate study has found any direct proxy. This must be revised. Review the FTC study closely for differences between "proxy" and "proxy effect". This is an important distinction. CBIS were found to be predictive within racial, ethnic and income groups in the FTC and Texas studies. —It would be impossible for an

special emphasis on methodology and the findings of each report. Although there are at least 18 reports of relevance, the literature remains somewhat sparse and more work, as described in Section V of this report, could and should be done. …	in the draft report, there have been three major studies using multivariate analysis—FTC 2007, Texas 2004-2005, and EPIC Actuaries 2003.
Due to the importance of predicting risk, insurance companies have likely completed enormous amounts of internal research concerning the effect of credit-based insurance scores on loss performance and insurance risk. However, that data and the results are proprietary and, for the most part, unknown to the public. It is worth mentioning that access to these models and the corresponding data could provide tremendous additional information to the overall topic.	Under general insurance regulatory law and the NCOIL model, regulators are given full access to credit scoring models and methodologies.
Nature of Studies	
… The NAIC, in its 1996 report described below, has criticized the studies that use loss ratio as the dependent variable and credit history as the predictor. The NAIC report pointed out that credibility of this method rests on underlying assumptions. If the rating variables within the existing premium are not completely accurate then the analysis of new variables is not valid. There are hundreds of rating factors such as geographic rating territory, driving experience, age of driver, age of home, various discounts and surcharges. Small errors in pricing a number of these factors could add up to significant overall pricing errors. In addition, a company may deviate its pricing away from true target loss ratios for marketing reasons, making the loss ratios inaccurate and inappropriate as measures for these studies. These deficiencies with using loss ratios as a dependent variable have led some, including the NAIC in its 1996 report, to call for a multivariate analysis in order to measure the correlation between credit-based insurance scores and risk of loss. Some regulators suggest that an unbiased and multivariate analysis is necessary to determine the effect of credit-based insurance scores on loss costs after accounting for all other factors	The introduction to this section on the reports in general and the NAIC report from 1996 leaves the impression that there still have not been any multivariate studies done on CBIS and indicates that this is a problem in assessing whether CBIS merely duplicates other variables or demographic factors. Indeed, several studies of CBIS have used multivariate analysis and have established that scoring does not merely duplicate other variables. In particular, the 2004-2005 Texas studies, the 2003 EPIC Actuaries study and the 2007 FTC study took this approach.
Listing of Reports	
National Association of Insurance Commissioners, "Credit Reports and Insurance Underwriting," 1996	

In 1996, the NAIC's 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 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.	Concerns about sole use are addressed under the NCOIL Model. See comments above. The paper seems to recognize that research has advanced on correlation since 1996. It should indicate that the NAIC's call for multivariate analysis has since been addressed.
Commonwealth of Virginia, State Corporation Commission, Bureau of Insurance, "Use of Credit Reports in Underwriting," 1999 …	
Fair Isaac, "Predictiveness of Credit History for Insurance Loss Ratio Relativities," October 1999 …	
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. …	
Conning & Company, "Insurance Scoring in Personal Automobile Insurance - Breaking the Silence," 2001 …	
American Academy of Actuaries and Risk Classification Subcommittee of the Property/Casualty Products, Pricing, and Market Committee, "The Use of Credit History for Personal Lines of Insurance: Report to the National Association of Insurance Commissioners," 2002 … The AAA paper summarized four prior studies that are also all included in this report. The paper provided recommendations regarding a future study including the recommendation that a study consider both credit history and insurance claims experience as manifestations of other personal characteristics. The paper also recommended that a future study looking at the effect of credit-based insurance scores on protected classes should define what is meant by "disproportionate impact" and define what magnitude of "disproportionate impact" would cause regulatory concern.	"Disproportionate impact" is not a standard that exists in the law of discrimination. The standard is "disparate impact", which is very different. Nor does "disproportionate impact" exist in state rating and insurance regulatory laws. Since regulators are required to apply the law, this document's setting forth an unrecognized statistical standard and then suggesting that insurers should be measured against it, is not an appropriate action by regulators. The mere fact that AAA provided a definition does not mean it is recognized by the actuarial profession or rises to the level of industry practice and usage.

"The Use of Insurance Credit Scoring In Automobile and Homeowners Insurance," A Report to the Governor, the Legislature and the People of Michigan, Frank M. Fitzgerald, Commissioner Office of Financial and Insurance Services, December 2002 … The report, contrary to most other research, found that individuals with "relatively lower socio-economic standing had better insurance credit scores, on average, than those of higher socio-economic standing." The Michigan study was not able to find evidence of bias or illegal impact with respect to race or ethnicity.	The draft report does not seem to support the "contrary to most other research" finding. Regardless, such description is gratuitous.
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 …	
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 … The random sample of policies was taken from policies in effect during 2000 and 2001. …	The NAIC may want to indicate that 2.5 million policies were used.
Wu, Cheng-Sheng Peter and James C. Guszcza, "Does Credit Score Really Explain Insurance Losses? Multivariate Analysis from a Data	

automobile insurance companies. Data obtained included, age, gender, ZIP code, credit scores and rate classifications. The consumers were

	by the statistical significance of findings in the study.
State of Alaska, Department of Community and Economic Development, Division of Insurance, "Insurance Credit Scoring in Alaska," February 21, 2003 …	
Maryland Insurance Administration, "Report on the Credit Scoring Data of Insurers in Maryland," 2004 …	

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

The Missouri Department of Insurance has conducted the most comprehensive state study concerning credit-based insurance scores and their potential effects on various socioeconomic groups. The Department's 2004 study used ZIP-code level data on credit-based insurance scores and race, income, and other demographic variables. The report used credit-based insurance scores from twelve large insurance companies used for automobile or homeowners policies.

Credit score data was aggregated at the ZIP code level. The data contained mean credit scores and the number of exposures for each of five equal credit score intervals. The study examined the bivariate relationship between credit score deciles and minority populations and per capita income in a ZIP code. A multivariate analysis was also completed that factored for race/ethnicity, income, and additional socioeconomic variables.

The Missouri study found that credit-based insurance scores were correlated with the racial, ethnic, and income characteristics of ZIP codes. The report found that the use of credit-based insurance scores leads to significantly worse scores for residents of high minority ZIP Codes and for residents of low-income ZIP Codes. The correlations remained after controlling for education, income and marital status. The impact on pricing and availability of insurance was not studied in depth in the Missouri report.

Criticisms of the Missouri study were that the study "ignores the fact that the variation of scores between individuals will dwarf any differences

This was not a comprehensive study. Indeed, the Missouri study did not match actual policyholders, credit scores, and demographic characteristics. Rather conclusions were inferred at a zip code level. Much of the analysis was done and conclusions reached using statistical modeling techniques, some of which have been critiqued in professional journals. The Missouri study was very limited with respect to the analysis of credit scoring. It also did not take into account positive marketplace indicators for CBIS in urban areas. During the period of time credit scoring had been used in Missouri, auto residual market policies, which historically were concentrated in urban areas, dwindled from over 14,000 to several hundred.

Also, AIA offers the following observations of the MO study:

- The report is basically an analysis of average credit scores compared against aggregate demographic data by zip code,

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."

The study also assumed that most differences in average credit-based insurance scores between ZIP codes were from race, income and geography. The study did not attempt to determine the impact of credit-based income on loss propensity.

- The report examines factors that insurers by law cannot use and that credit scoring models do not use – such as race and income.
- The report alleges that territorial rating is restricted or prohibited for use in personal lines insurance. It is AIA's understanding that all states permit the use of geographic area (territory), including California, where territorial differences in loss costs are a part of rating.

For additional, third party perspective on this study, please see a

The report found that losses for the 10 percent of policyholders with the worst credit-based insurance scores were 1.5 to 2 times higher than that of the 10 percent of policyholders with the best credit-based insurance scores. The study concluded that "By using credit score, insurers can better classify and rate risks based on differences in claim experience." The study found that African Americans and Hispanics tended to have lower credit-based insurance scores than Asians and whites. African Americans and Hispanics combined to make up over 60% of consumers having the worst credit scores but only around 10% of the best scores. It did not find consistent results in terms of income.	experience by credit score in the Texas study was substantial. Typically, the claim experience for the 10 percent of policyholders with the worst credit scores was 1.5 to 2 times greater than that of the 10 percent of policyholders with the best credit scores. • Impact on Availability and Affordability: In his summary letter transmitting the study to Texas Governor Perry and the legislature, Commisioner of Insurance Jose Montemayor noted "that banning credit scoring overnight, by rule or law, creates pricing and availability disruptions in a market that has just stabilized and begun to rebound. The same effect would occur if a narrow rate limits, or collar, due to credit scoring were adopted with immediate effect. Premiums would go up for a very large number of policyholders if the collar on credit scoring (or any other risk variable for that matter) is set too narrow, because it would force an immediate price shock ***unrelated to a change in risk."***
Arkansas Insurance Department, "Use and Impact of Credit in Personal Lines Insurance Premiums Pursuant to Ark. Code Ann. § 23-67-415," July 2007 The Arkansas Insurance Department submitted a report to the state Legislature in July 2007. The state requires each insurance company to annually report the number of personal polices that received a premium increase and decrease due to credit scoring. The report found that a strong majority of insurers used credit in determining premium. The companies using credit history made up 94% of Arkansas' market in 2006. Unlike most of the other state reports, the Arkansas report sought to discover how many consumers were helped and hurt by the use of credit-based insurance scores. During 2006, 30% of all policies received a premium reduction due to credit scoring and 9% received a premium	The most recent Arkansas study, dated July 2008, affirmed what the previous three years of studies showed and that is the vast majority of consumers either receive discounts and better rates from scoring or there is no effect at all. Fewer than one in ten Arkansas policyholders received rate increases because of their scores. It stated: …91% of consumers whose premium involved a credit component either received a lower premium or their premium was unaffected and and "for those policies in which credit played some role in determining the final premium, those receiving a decrease outnumbered those who received an increase by 3.44 to 1.[1] This finding contradicts frequent statements by consumer advocates that CBIS penalizes and increases rates for a large number of policyholders. The fact that CBIS has a neutral effect on the largest

[1] "Use and Impact of Credit in Personal Lines Insurance Premiums Pursuant to Ark. Code Ann. §23-67-415"; A report to the Legislative Council and the Senate and House Committees on Insurance & Commerce of the Arkansas General Assembly by the Arkansas Insurance Dept. July 2007. The Arkansas Insurance Dept. examined approximately 1.8 million auto and nearly 500,000 homeowners policies. Arkansas enacted the National Conference of Insurance Legislators Model Act on Credit in 2003.

increase due to credit scoring. The percentages were similar when broken out by individual lines of business. Although most consumers were either not affected or positively affected by the use of credit, the Arkansas Insurance Department was not able to report on whether those negatively impacted were disproportionately minority or low-income.	number of policyholders is an indication that although it increases accuracy and fairness, CBIS is one of many important rating factors utilized in auto and homeowners insurance rating, not a sledge hammer, or a sole determinant. The report should also note that for Arkansas policyholders where credit scoring did make a difference, those receiving discounts outnumbered those receiving increases by 3.33 to 1.

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

The FTC, as required by Congress, studied whether credit-based insurance scores affect the availability and affordability of automobile and homeowners insurance. In July of 2007, the FTC released its report regarding automobile insurance. A study regarding homeowners insurance is currently being conducted by the FTC with a forthcoming release.

The FTC used data from five insurers that had previously provided automobile data for the EPIC study. The information included data related to the policy and the driver, claims and a ChoicePoint Attract Standard Auto credit-based insurance score for the first named insured on the policy. The data related to automobile insurance policies in place between July 1, 2000, and June 30, 2001. The FTC combined the data from the five insurance companies with data on race and income data based on ZIP code.

The FTC divided credit-based insurance scores into deciles and found that the average number of claims and average size of claims fell as scores rose. The FTC study attempted to control for other risk factors such as age and driving history and found that credit-based insurance scores continued to be correlated with loss ratios although the relationship lost some of its strength.

The FTC report found that credit-based insurance scores are "effective predictors" of the number of automobile claims and the total cost of those claims. The report was not able to address the question of why credit-based insurance scores are an effective predictor of risk.

The FTC report found that African Americans and Hispanics were

Contrary to the criticism leveled by some interest groups, the majority of the FTC (4 to 1) strongly supported the study and authorized it issuance. Indeed in Congressional hearings, the FTC continues to stand behind the report, its data and its findings.

The FTC study was mainly criticized by consumer advocates in terms of the sample. In fact, insurers and the FTC worked carefully together on legal assurances regarding the quality and veracity of the data/sample. There was no "hand-picking" by the insurance industry. Samples were drawn according to research, actuarial and statistical standards.

Other Benefits of CBIS acknowledged in the FTC Study but ignored in the description of this study by the NAIC. (See direct quotes below.)

- Score may reduce the extent of adverse selection and make insurance markets more efficient.
- Innovation in risk prediction techniques like credit-based insurance scores may affect the availability of insurance and some of the costs association with selling insurance.
- Consumers may have a broader range of options to choose from when purchasing insurance.
- Because credit-based insurance scores predict risk more accurately for consumers, insurance companies may be willing to offer coverage to some higher-risk consumers.
- In addition, credit-based insurance scores may make the process of underwriting and rating quicker and cheaper, and

strongly overrepresented in the lowest credit-based insurance score deciles and under-represented in the highest credit-based insurance score deciles. Nonetheless the FTC found that credit-based insurance

effect, the data did show that certain minority groups could be adversely affected by the use of credit-based insurance scores.	
Brokett, Patrick L. and Linda L. Golden, "Biological and Psychobehavioral Correlates of Credit Scores and Automobile Insurance Losses: Toward an Explication of Why Credit Scoring Works," The Journal of Risk and Ins., 2007, Vol. 74, No. 1, 23-63. …	
VI. LITIGATION **Willes v. State Farm Fire and Casualty Co.,**	

	solvency.
…	
Valid criticisms exist questioning whether true multivariate analyses have been conducted to eliminate the possibility that credit-based insurance scores act as a proxy for variables that are already being measured or ones that should not be used, such as income or race. Until multivariate analyses have been conducted, the question of how much impact credit-based insurance scores have on loss experience will not be answered fully.	This section continues to imply in places that the numerous research reports still have not included a "true multivariate" analysis. The report should try either to explain why the EPIC, Texas, and FTC studies were not multivariate analyses or drop this assertion.
In addition, most studies seem to acknowledge that credit-based insurance scores are correlated with race and income. Certain minority groups as well as low income populations tend to have lower credit-based insurance scores. This leads to low income and minority populations having availability and affordability issues when it comes to insurance.	These statements are not supported. Not all studies looked at demographic information; some went to the correlation issue alone. None of the studies found actual discrimination. In fact, the objectivity and accuracy of CBIS has been documented by each and every one of the studies. Additionally, as the numerous Arkansas studies show, many consumers are not impacted by CBIS and most benefit. The entire population has benefitted form shrinking residual markets – evidence of greater availability and affordability.
Several studies have found that credit-based insurance scores may serve to some extent as a proxy for race or income. Because insurers cannot use race or income as rating or underwriting factors, perhaps credit-based insurance scores are being used as a proxy for race or income. If this is the case, it may be that credit-based insurance scores should not be allowed by state regulators – just as race is no longer allowed in life insurance regardless of any actuarial validity.	The discussion of "proxy" is misleading, implying that it is a legally recognized basis on which regulators can and should act. Indeed, it is not. The mere statistical happenstance of the application of a race and income neutral factor does not prove anything at all. Further, even the so-called "proxy effect" has serious qualifications in the FTC report, not at all accurately reflected in these statements. See the Congressional testimony submitted by Lawrence S. Powell, Ph.D. Whitbeck-Beyer Chair of Insurance and Financial Services University of Arkansas-Little Rock from earlier this year to the Oversight and Investigations Subcommittee. While the NAIC has indicated that it is not generally looking to testimony and other non-studies in this paper. Dr. Powell's insights are new and useful. They shed light on the weaknesses of the "proxy effect" discussion. In particular, he questions the possible finding of a small effect given that it is based off of

	extrapolations from different coverages rather than the coverages at issue.
A large concern of consumers and regulators is that credit-based insurance scores may be used primarily as a tool to predict profitability of customers. Even if credit-based insurance scores have some correlation with risk propensity, the larger issue might be how effective credit-based insurance scoring is in measuring loyal or high income consumers who are less likely to make an insurance claim. Such a measure is contrary to the typical risk variables that are used in risk prevention. For instance, charging drivers more based on past accidents is a way to influence future behavior, i.e., safer driving. Charging consumers more because they are less loyal or wealthy is contrary to the notion of risk prevention because a consumer can not change their behavior and aid in loss prevention. If credit-based insurance scores are merely used as a profitability measure regulators may wish to decide if this is truly best for the overall consumer good.	The statements imply that there must be something wrong in a very competitive market such as auto and homeowners insurance with using tools, rating and underwriting in trying to maintain solvency, profitability, and avoiding losses that would make it difficult to continue writing insurance as broadly as possible. It also contradicts reports and testimony by insurers who have noted that scoring provides the ability to write and compete in a broader range of the marketplace, including policyholders that may have greater risk. This benefit increases insurance ability. Therefore the assertion that there is something wrong with one aspect of CBIS that may allow insurers to compete more effectively, profitably and broadly, while increasing efficiency and pricing more accurately is misplaced.
Possible Future Research	
Although there has been a fair amount of research related to credit-based insurance scoring and loss propensity and effects on consumers, more can be studied. The FTC thus far has been unable to create a model to recreate credit-based insurance scores without affecting race and income groups. The forthcoming FTC study may attempt to create a model. It is unknown for certain whether insurers can get the same results without using credit-based insurance scores. Unfortunately, it is difficult for regulators or others to truly test the effects of credit-based insurance scoring because insurers hold their models to be trade secrets and thus proprietary.	There is no demonstrated need for further state or NAIC study. No issue that we know of has been studied more. Yet, the findings all bear out the risk assessment value. In addition, no study or court has found CBIS to violate the law. Further study of this issue may please particular special interest groups, but it would waste regulatory resources that should be focused on other issues, such as solvency regulation.
Future studies could add valuable information to the existing literature and aid regulators in deciding what public policy stances to take with respect to the use of credit-based insurance scores. Two aspects could use additional research. The first is determining, through a multivariate analysis, the exact nature of credit-based insurance scores and how they work. Within this, additional study is needed into whether credit-based insurance scores are correlated with risk factors already taken into account by insurers. Analyzing actual models utilized by insurers would be the most accurate way to study the full effect of credit-based	No additional state or NAIC studies are needed. Regulators have the power and the tools to identify and deal with any problems, should they emerge, under existing law and regulation.

insurance scoring.	
When conducting an analysis of the predictive powers of credit-based insurance scores it is important that the researchers also consider whether credit-based insurance scores are primarily being used for profitability reasons. On its face, credit-based insurance scoring may seem to be predictive of loss ratios but it may be that the underlying effect of using credit-based insurance scores is to find more profitable customers. These customers may be more profitable not due to consumers having fewer or less severe losses but because those consumers report losses less frequently or are more "loyal" to their insurance company. This reason is in contrast with the role of loss prevention for insurance. In this case insurers are no longer pricing risk but pricing profitability. Such a situation, if discovered, would need to be considered fully by regulators as they likely would look on credit-based insurance scores differently.	See discussion elsewhere on profitability.
The importance of credit-based insurance scoring on minority populations remains an important and timely issue. A bill introduced in Congress (HR 5633) would amend the Fair Credit Report Act (FCRA) to prohibit the use of credit information in underwriting or rating personal lines of insurance if the FTC finds that the use of credit information results in "racial or ethnic discrimination" or "represents a proxy or proxy effect for race or ethnicity." The bill goes on to define the term "proxy for race or ethnicity" as "a substitute or stand-in for race or ethnicity, either by design or in effect, without regard to the extent of the effect." Additional research could be done on how the use of credit-based insurance scores by insurers affects minority groups and lower income groups. Most of the research shows that these groups do experience some negative impact due to the use of credit-based insurance scores.	No study or judicial decision has found that CBIS constitute unlawful discrimination. In fact, just the opposite, as most recently reiterated in the FTC auto study and as forcefully pointed out by Texas Commissioner Montemayor. The so-called "proxy effect" is a complicated statistical construct that has not been shown to be material or relevant except in the rhetorical sense, and even if relevant, the evidence for its existence is anything but strong. In any event, a "proxy effect" does not make a case of discrimination, as the law defines it. To repeat inflammatory and contested accusations of questionable relevance is to mislead the readers of this report on issues of critical concern to all of us.

disproportionate impact and what magnitude of impact would cause concern.	
The AAA Report defined “disproportionate” impact as a rating tool that “results in higher or lower rates, on average, for a protected class, controlling for other distributional differences.” The report defined “disparate” impact as resulting in “substantial disproportionate impact” with no business necessity for the practice.16 The term disparate impact has also been used in recent proposed legislation, although an exact definition has not been defined in that legislation.	An informal AAA definition does not rise to the level of an actuarial standard of practice or other peer reviewed and tested concept
If a disproportionate impact is found due to credit-based insurance scores it may be sufficient for regulators to give further consideration to the practice of using credit-based insurance scores. Even if there are actuarial sound reasons for using credit-based insurance scores, public	

scores, lower credit-based rate assignments, and less likelihood of lacking a valid credit score. Income is also a significant factor. Credit scores and premium costs improve as income rises. People in the lowest income categories – less than $20,000 per year and between $20,000 and $35,000 per year – often experienced higher premiums and lower credit scores. More people in lower income categories also lacked sufficient credit history to have a credit score."

responses" made it difficult to pin down any statistical significance

“Credit-based insurance scores appear to have little effect as a ‘proxy’ for membership in racial and ethnic groups in decisions related to insurance.”

“Credit-based insurance scores are distributed differently among racial and ethnic groups, and this difference is likely to have an effect on the insurance premiums that these groups pay, on average.”

proxy issues in the FTC study.

Scores as a Proxy for Race and Ethnicity, pages 61-72

"On the other hand, if scores do predict risk within groups, then they do not serve as a proxy if used to assess risk for all consumers.... (With reference to Table 14)... Because they show that scores predict risk within groups, these results show that credit-based insurance scores do not predict risk solely by acting as a proxy for membership in racial and ethnic groups."

"The large differences in average risk on comprehensive coverage for Hispanics and African Americans should be treated with some caution, as the geographic risk variable in the FTC database is not a very effective control for geographic variation in risk on comprehensive coverage."

Test for... Existence of a Proxy Effect, page 67-68

"The only statistically significant difference was that the estimate relative risk for the lowest score decile was larger when protected class controls were included in the model. This is opposite of the change that would occur is scores were acting as a proxy."

"The FTC's analysis revealed that including these controls (for race, ethnicity, and income) did reduce somewhat the effect of scores on predicted risk for three coverages. The results show, however, that scores do continue to predict claims strongly if controls for race, ethnicity, and income are included in the risk models, which means that scores do not predict risk primarily by acting as a proxy for these characteristics." --p 68

In closing, if it is going to be issued, the paper should be significantly revised. As currently drafted, it is not only internally inconsistent, but in some places, it lacks objectivity. In addition, it includes rhetoric containing novel concepts and theories that have little or no relationship to the law that regulators must implement. The vast majority of state legislatures and/or regulators have already enacted balanced CBIS requirements. Not only is no further state or NAIC research needed, but today regulators already have all the tools they need to address any concerns.

Sincerely,