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Co-Chairs Johnson and Warren, Members of the Committee, Other Legislators, Legislative Staff, Guests, and Members of the Public:

Thank you for inviting me to testify on my recent work regarding the North Carolina residual automobile insurance market and possible ways to reform the current system.

For much of the past 12 years, I have been a consultant and advisor in various capacities. From 2011-2016, I was a consultant and economic forecaster for ITR Economics, located in Manchester, New Hampshire, where I helped small, medium, and international corporations manage the challenges of an ever-changing global economy. While completing my Ph.D. at George Mason University, my research focused on how legislative changes (like what we are discussing today) can influence market outcomes, in particular in the case of the COVID-19 pandemic. While a visiting professor at Western Carolina University in Cullowhee last year, I served as an expert witness on an antitrust case in Colorado. This year, as part of my duties at Nicholls State University, I am part of a team of economic advisors to the United Houma Nation on building the resilience of their tribal economy in the face of climate change factors impacting the Bayou Region of South Louisiana. I am honored and excited to bring my skills to assist the legislators and people of this great state which I all-too-briefly called "home."

Co-chairs Johnson and Warren have asked me to speak on the automobile insurance market here in North Carolina, in particular the residual market.

A residual market in the automobile insurance industry (sometimes called the secondary market) is where vehicle owners who cannot get insurance in a voluntary market are assigned an insurer. Vehicles who end up in a residual market are high-risk and represent a likely loss for the insurance company: habitual drunk drivers, habitual moving violations, a high number of accidents, etc. No firm will willingly take on a policy who will likely cost them money, so the residual market is the last option for these individuals.

The residual market in North Carolina is managed by the North Carolina Motor Vehicle Reinsurance Facility (NCRF) and has been so since 1973. The NCRF is a nonprofit, unincorporated legal entity who is made up of all automobile insurers operating within the State. North Carolina is quite unique in having a Facility manage the residual market; only New Hampshire has a similar set-up. The remaining 48 states use an Assigned Risk Plan.

As I am sure you expect, the premiums paid by policyholders in a residual market are significantly higher than those in the voluntary market. Of course, we should expect this to be the case: they are high risk policies, after all. According to the North Carolina Reinsurance

Facility, policies in the residual market have premiums about 35% higher than in the voluntary market.

The size of a residual market can signal how well the insurance market is operating. If there are a relatively high share of premiums in the residual market, it can signal that the customer base is under-served: there are not enough insurers in the state, too high penalties for certain driving behaviors, etc. Consequently, we must ask what impediments there are preventing the market from operating normally. In North Carolina, an abnormally high number of policies are in the residual market: the residual market accounts for approximately 25% of written premiums. For comparison, Massachusetts is the second-highest state with 10% of written premiums in the residual market. The national average is 0.8%. North Carolina is clearly the outlier here and the figure suggests that something is wrong: this market has failed.

The question before us, then, is why. Are North Carolinian policyholders just that more dangerous? It does not appear so. North Carolina does have a high instance of drunk driving, ranking 7th highest in the nation. However, South Carolina is just below us at 8th and yet have their residual market has a significantly smaller share of written premiums. North Carolina does have several major Interstate highways and sits at significant crossroads for trucking, which increases the riskiness of driving in the state. However, these problems are not unique to North Carolina. Places like New York City, the Greater Boston Area, the Beltway around Washington DC, etc., also carry heavy traffic and involve complicated mergers, and they too have far smaller residual markets.

Rather, we should look at the incentives that shape the North Carolina Automobile Insurance market. What incentives do insurers have to cede premiums into the residual market? What incentives do policyholders have to get out of or avoid the residual market? Whenever we have such a deviation from the norm in a market, we ought to look at the incentives since ultimately, we are looking at the behavior people. That is what much of my testimony here today will focus on. Understanding these incentives will help us make informed choices about what reforms to pursue. Then, I will discuss what I think may be useful reforms in reducing the number of policyholders in the residual market in North Carolina. The experience of South Carolina in the late 1990s and early 2000s can provide a useful guide.

Let us begin by looking at the incentives the auto insurance companies face. For North Carolina, I believe the largest factor contributing to the large share the residual market is the fact that there is no limit on the number of policies insurers can cede to the NCRF. As currently established, insurance companies who cede a policy to the NCRF cannot profit from that policy if the premium brings in more than any payouts. This requirement discourages insurance companies from ceding the most profitable policies to the NCRF. However, the NCRF allows firms to cede some "clean-risk" policies to try and help keep the Facility profitable. "Clean-risk" policies are policies that have clean records and thus likely profitable. The purpose of this categorization is to try and help keep the Facility afloat without the need for tax dollars. However, since insurance companies want to earn profits, they will cede a clean-risk policy that may represent a high *potential* risk. For example, someone who is 23 may be a clean risk (driving 2+ years with no infractions). But, because of inexperience, they will inherently be riskier than someone who is 45 with no infractions. Thus, insurance companies face an incentive to cede the 23-year-old, increasing the policy in the Facility.

In fact, insurance companies face the incentive to cede any marginal driver to the Facility (that is, a driver whose expected profitability is close to $0). Ceding a driver to the facility spreads the risk of loss of these policies to all the insurance companies currently operating in North Carolina. Thus, for an insurance company, they will be indifferent between ceding the marginal policy to the Facility or keeping it on their books. Since an expected probability is just that (expected), then the insurance company can reduce risk they face by ceding these policies.

This incentive to cede premiums to the Facility is enhanced by North Carolina's Prior Approval system. With Prior Approval, the goal is to minimize premium increases by requiring insurance companies to submit for approval before the increase can go into effect. This allows for firms to maintain a particular level of profitability while keeping rates reasonable for North Carolina policyholders. But Prior Approval, by limiting the profit the insurance companies can generate, generates an incentive to cede premiums to the Facility. Insurance companies, like any firm, are profit-seekers. Given market and legal conditions, they want to maximize their profit. Since Prior Approval limits their ability to seek profit in the marketplace, they can offshore some risk to everyone else via the Facility. Firms face the incentive to keep the most profitable (i.e. safest) policies on their books while ceding marginal policies to the Facility.

Thus, I argue that changing the incentives for firms to move policies to the residual market will be key to reducing the size of the residual market. The easiest way to change incentives will be to limit the amount of premiums an insurance company can cede to the Facility. The precise limitation will need to be carefully determined to ensure that the Facility doesn't become totally insolvent, but, as a guide, South Carolina allowed auto insurers to cede just 1/3rd of their business to their Facility without needing to provide a reason. If an auto insurer wanted to cede more, they would have to give a reason. When South Carolina moved to restrict the amount of business insurers could cede to their Facility, the residual market moved from 30% of premiums to 10% in one year. Because insurers had to be pickier about what business they'd cede, they kept more of the marginally profitable policies on their books, absorbed more of the risk, and consequently had to ensure that those policies wouldn't harm their profitability significantly.

And this brings me to a major point: when insurance companies have to face the risk of the policies they hold, they face an incentive to reduce that risk precisely because they are profit-seekers. Firms can potentially increase their profit in two ways: increase revenue or decrease costs. Increasing revenue is difficult: premiums are agreed upon at the moment of signing. But the firm can reduce costs (that is, the potential of a large payout). They may encourage safe driving techniques, give safe driver discounts, provide subsidized training courses, etc. To maximize their profit, the firm has an incentive to make the driver safer. If they can simply cede business to the facility, they do not face the same incentive: the risk is shared among all the firms and there are no profits to be sought. The reward to reduce risk isn't there for the firms. In short: restricting the amount of business a firm can cede to the Facility will essentially enlist insurers in the cause of reducing the size of the residual market: it will redirect their self-interested profit-seeking toward this goal.

On this point of forcing firms to face the full cost and risk of their written business, moving from a managed residual market to an Assigned Risk Plan would enhance the incentives faced by insurance companies to consider the riskiness of business. With the NCRF, the risk of these ceded premiums is shared among all the insurance firms equally. Again, since no firm can gain profit from this business and they only face a share of the risks, they do not face an incentive to try and reduce the risk. Any firm would face the full cost of risk-reduction programs but only reap a percentage of any benefit. Such a move, then, would reduce profit, so they would not willingly undertake such measures.

But, with an Assigned Risk Plan, the firms face the full effects of their actions. Under an Assigned Risk Plan, someone would assign business to the various insurers based on their relevant market share: an insurer who owns 20% of premiums in the state would get 20% of business in the residual market, one who owns 10% of premiums in the state would get 10% of business, and so forth. Since these insurers now own the premiums, and thus face the risk of loss or the reward of profit, they have an incentive to maximize their profit (or, what comes to the same thing, minimize their loss) on this business. If the insurers are profit-seekers, they will explore different ways to reduce the riskiness of this business. Again, simply limiting the amount of premiums an insurance company can cede to the Facility will change the incentives for insurers and help reduce the amount of premiums in the residual market but moving toward an Assigned Risk Plan (thus bringing North Carolina in line with much of the nation) will make that incentive even stronger. A stronger incentive will likely result in even smaller size of the residual market.

I should state that an Assigned Risk Plan would be a substantial change to current policy, affecting many jobs and people in the Facility and the government. I do not wish to minimize that impact. Rather, as I discussed in my report, I feel an ARP would be an effective means to reduce the size of the residual market and the experience of the other states in the United States can testify to that point. However, the Legislature will need to consider the trade-offs involved: would a further reduction in residual policies be worth the substantial shake-up in the administrative framework? That I cannot answer.

The final item I would like to discuss is a more flexible premium rate system for automobile insurance companies in the state. Currently, North Carolina has a prior approval system, where a change in premiums need to be approved before they can go into effect. 11 other states use this system: Connecticut, New Jersey, Pennsylvania, West Virginia, Georgia, Alabama, Mississippi, Louisiana, Washington, Nevada, and California. The idea is to keep premiums down by preventing insurance companies from willy-nilly raising rates. Indeed, there is some evidence that prior approval does keep premiums lower than other systems. But monetary price is not the only cost here.

When prices have to be approved before they can go into effect, that has a chilling effect on the competitiveness of the market: it is difficult for new firms to enter the market. There is neither the incentive to enter the market (since the approved premiums are explicitly designed to keep profits relatively low) nor for specialized firms to enter to cater to those left behind by the current market participants. Thus, those who are left behind by traditional insurers must turn to the residual market.

By moving away from a prior approval system to a flexible rate system, where insurers can set their own rates, I believe the incentives will change for firms to reduce the number of policies in the residual market. If rates are flexible, then specialized insurance firms can enter; firms who specialize in dealing with high risk policies. Current insurers will choose to either lose potential profit to these new firms or find ways to keep premiums on their books and thus earn profit. Again, the incentive for the insurance firm is thus to try and reduce the riskiness of the vehicles they insure.

These three recommendations, 1) reducing the amount of premiums that can be ceded, 2) moving to an ARP, and 3) moving toward flexible premiums, would be substantial reforms. And substantial reforms necessarily entail substantial costs in terms of time, jobs, and uncertainty. Let us not sugar-coat it: these reforms would be difficult. But South Carolina shows the reforms can be effective.

In the 1990s, South Carolina had a system similar to North Carolina currently: they had a reinsurance facility, prior approval, and a high cap on the amount of business that could be ceded to their residual market. At its peak in 1992, 40% of premiums were in the residual market. Given these conditions, South Carolina is instructive for insurance reform. As an added bonus, since South Carolina is a neighbor of North Carolina, the two are very similar geographically, which gives stronger confidence that the effects of reforms would be similar.

Reforms were passed in 1997 and phased in from 1998 to 2003. The reforms included:

1. Moving from a “prior approval” requirement to a “flex rating” system for rate hikes
2. Adding a disclaimer on insurance policies about how much of policies’ premiums were supporting the South Carolina Reinsurance Facility and how different driving behavior landed policies into the Facility
3. Phasing out the Facility over three years
4. Increasing restrictions on the number and type of premiums insurance companies could cede to the Facility, prior to phasing it out

5. Removing most limits on Facility rate increases

6. Phasing out the Facility over three years, first to a Joint Underwriting Authority, then to an Assigned Risk Plan system by 2003

Since the reforms were enacted, the amount of premiums in the residual market fell to 0.014%. These reforms were enacted carefully, but the results were clear: fewer policies were in the residual market, insurance companies faced lower risk losses and thus lowered premiums for policies. Further, more insurance firms entered the market, creating new opportunities for South Carolinian drivers. And South Carolina's premiums have grown at a slower pace than North Carolina's over the past decade.

I believe North Carolina will have similar successes adopting similar reforms. However, I wish to stress some significant risks involved:

First, inflation. Since the Pandemic, automobile parts have risen in price by 20.8% (data through October 2023). Consequently, the cost of repairs have risen significantly as well. Insurance companies have needed to increase premiums just to cover these higher costs. While there has been some deflation in automobile part prices in recent months, I suspect the relief will be short-lived, and we could see further inflation in the coming year. That would mean that any relief drivers might have seen from a change in system could be wiped out simply due to inflation. The residual market may be smaller, but premiums might remain relatively high compared to previous years.

Second, implementation. I believe one reason for South Carolina's success is their reforms were implemented over six years. Rapid change to a better policy can be just as damaging as a movement to a worse policy. If people are not given sufficient adjustment time, confusion, uncertainly, and other problems can rear their ugly head, hindering the effectiveness of reforms. If you should decide on reforms, I strongly recommend phasing them in so that insurers, policyholders, and the other actors have time to adjust. It's easy and costless to shift lines on a blackboard. It is much harder to get those same results in real life.

In conclusion: I think it is obvious that the North Carolina automobile insurance market is in need of reform; the size the residual market is evidence enough. Effective reforms are available and the experience of our neighbor to the South give a guide on how to enact them.

I would also like to spend a few minutes to respond to Commissioner Causey's October 8, 2023 letter on my report. I wish to thank Commissioner Causey for his letter as he highlighted several flaws in my report; flaws which I should not have made. Allow me to clarify, for the record, those issues now.

First, Commissioner Causey states that several of my quoted numbers are unsubstantiated. That is a failing on my part; I tell my students to cite their sources and I failed to do exactly that on three points because they were a matter of public record. Allow me to correct that now:

- Commissioner Causey questions where I found that the North Carolina residual market encompasses 25% of policies and that premiums for those in the residual market are approximately 35% higher. First, the description of "policy" in my report was a confusion on my part; I should have written "premiums." I had misread the NCRF's website (https://www.ncrb.org/ncrf/About-NCRF), which states: "In 1958, the first year of compulsory automobile liability insurance in North Carolina, 9% of the non-fleet private passenger automobiles were insured through the Assigned Risk Plan, up from only 3% the previous year. The Plan's market share grew steadily to the point that 29% of the non-fleet private passenger automobiles were insured through the Plan during the year ended June 30, 1973." The phrasing "non-fleet private passenger automobiles…" made me think it was the number of drivers or policies, when it is really the premiums.
- Additionally, I should have used the more recent number from the annual report: 23.7% of premiums, a figure that has "remained virtually the same since [the Facility's] creation" (see page 4).
- The figure about facility policyholders paying a higher rate comes from the same source: "At the present time the rates for non-fleet private passenger automobiles filed by the Facility are, on average, 35% higher than voluntary rates." These quotes can be found on their "About Us" page (https://www.ncrb.org/ncrf/About-NCRF).[1]
- Commissioner Causey notes that "premiums for 73% of the vehicles covered by ceded PPA policies remained the same upon being ceded" (page 4). If the average, as reported by the NCRF is that the premiums are 35% higher, then the premiums for the remaining 27% of ceded policies must be extraordinarily high, and thus my overall point remains.
- Commissioner Causey asks me to substantiate where I discovered that North Carolina ranks highest in the nation in terms of the size of the residual market. That claim comes from the AIPSO (Automobile Insurance Plan Service Office). It was also communicated to me in the initial Agreement between myself and LSC. I had taken that information as given.

I hope this has helped answer his concerns about those figures.

Commissioner Causey also notes that I say "drivers" throughout my report, rather than premiums." I do apologize and have, for the sake of this testimony, made this change. However, I do not think the change affects my report. Ultimately, we are talking about drivers here. A vehicle without a driver is inert. A vehicle is high-risk because one of its operators is high-risk. Consequently, my overarching point about changing incentives for insurance companies and drivers (policyholders) remains the same. Ultimately, my report and recommendations here are about changing incentives.

Finally, I wish to address Commissioner Causey's concerns about my premium prediction in the report that movement away from prior approval to a flexible premium system would result in

[1] Accessed most recently on 11/29/2023

significantly higher premiums for North Carolina policyholders. My comments were based on the experience of South Carolina and economic theory. If a market becomes more competitive, prices tend to fall. Price controls, which are effectively what the prior approval process is, tend to protect current market participants from competition from other insurers. Ordinarily, a market cartel can be broken by new participants sensing a profit opportunity and entering the market. However, when the government acts as a cartel enforcer through price controls, it reduces the incentive for new firms to enter the market since they cannot profit as easily. Consequently, I argue, again along the lines of the South Carolina experience and economic theory, that the prior approval system of North Carolina reduces the number of automobile insurers in the state, making the market less competitive. Further, I claim that moving to flexible and away from prior will help insurers face more of the risk of their policies and search out ways to reduce that risk, allowing them to lower premiums to compete.

Commissioner Causey rightfully notes that South Carolina's average premiums are currently higher in absolute terms than North Carolina's. However, as I note in my report, the growth rate between the two are considerably different. According to data from The Zebra (an automobile insurance information firm), average premiums from 2011 to 2021 for South Carolina grew 25.51%. Over the same time period, average annual premiums in North Carolina grew 43.02%. Furthermore, South Carolina's premiums have been growing slower since they moved to a flexible rate setting system than prior. If I may quote from a report by Drs. Martin Grace, Robert Klein, and Sharon Tennyson cited in my original report: "South Carolina's reforms restored rate adequacy, without creating an environment in which auto insurers earn excessive profits."

From an economic theory perspective, this result makes sense. If firms in a market are earning excessive profits, then other entrepreneurs, searching for profit, see an opportunity. If they can enter the market, they will, and offer similar services for lower prices to entice policyholders to switch to them. This competition (or even the threat of such competition) helps keep prices low. But the prospect of profit has to be there. With prior approval, new entrants are not enticed to enter: they would not earn sufficient projects to justify their entry. Thus, existing firms (even though their ability to profit is limited by the prior approval system) are protected from competition and control a higher segment of the market than they otherwise would.

All that said, I do not wish to downplay Commissioner Causey's concerns. There is research, such as a 2019 report by Mr. J Robert Hunter and Mr. Douglas Heller of the Consumer Federation of America that finds prior approval states, in general, have lower insurance premiums (there are exceptions. My current home, Louisiana, has, by far, the highest premiums in the country). And while I dispute their claims for the reasons discussed here and in my report, their findings do need to be acknowledged.

It is also worth noting that all of these prior approval states have a much lower percentage of premiums in their residual markets than North Carolina. Consequently, their experience shows that reducing the size of the residual market does not depend on a flexible premium system; the goal can be achieved under prior approval. As I say in the report and here, I think the biggest reform that can reduce the residual market is limiting the amount of premiums that can be ceded. The other reforms I discuss, including prior approval, are complimentary.

I hope my comments here have helped address the comments and concerns raised by the Commissioner. Insurance reform is a complex issue, one which I unintentionally muddied and I thank the Commissioner for bringing those issues to light, as well as this committee for allowing me to clarify.

Thank you.