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FROM: TO: Patrice Ficklin Steve Antonakes

CC: SUBJECT:

Katherine Gillespie Choice of Estimation Method for Indirect Auto Lending Markup Disparities

DATE:

April , 2013

In response to a PARR letter describing the Bureau's preliminary finding of dealer markup disparities on a prohibited basis in the standard of the standard of the Method") to assess markup disparities. Pending resolution evaluation of this methodological question contention, we have delayed sending PARR letters in other indirect auto lending exams and proceeding to ARC decision-making in the and Ally indirect auto exams. After a detailed study by the Office of Research ("OR"), we have concluded that our original estimation method (the "OR Method") is valid and reasonable and, as such, recommend moving forward in reliance on it at this time, with certain caveats as noted below.

As an initial matter, we note that the methodological question raised by concerns not how to proxy for race and ethnicity, but rather how to use proxies to estimate the size of any racial or ethnic disparities in markup. In fact, sexpert and OR employ similar proxy methods: a calculation of the probability that an individual falls into each of several racial and ethnic groups based on a combination of the demographic information associated with the individual's address and the individual's surname. We believe this method is likely better than commonly-used alternatives, such as a geographic proxy with a threshold (e.g., considering as African-American only those living in census tracts where 80% or more of residents are African-American) or a pure surname-based proxy (e.g., identifying as Hispanic those who have commonly Hispanic names).

Regarding the estimation issue raised by sexpert, our initial expectation was we had heped that OR's analysis of the two estimation methods would reveal that one or the other was plainly superior. However, OR has concluded that the two methods are both reasonable, but under different assumptions about the underlying cause of the disparities. The OR Method assumes that members of different classes experience different markup outcomes because auto dealers on average treat them differently on the basis of their class membership—in other words, markup disparities are caused by disparate treatment. The

Comment [R]KG1]: I would rather attribute the argument to and not Siskin, given that we have engaged him for other institutions.

Comment [RJKG2]: I'm not sure that it helps us to note that we hoped there was a single right answer. You may even consider deleting this sentence.

¹ We believe our proxy method is better for at least two reasons. First, direct use of the probabilities likely yields a less biased estimate of the true total number of individuals by race and ethnicity because employing thresholds results in excluding many borrowers from the analysis who do not meet the identified thresholds. Second, use of the probabilities likely provides a more accurate estimate of the likelihood of class membership for any given borrower. Indeed, OR has done some work comparing the success of various methods at identifying race and ethnicity as reported in HMDA data, and has found that our proxy method consistently does a better job than common alternative methods such as thresholds.

² It is our understanding that OR and see sexpert agree on this conclusion.

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assumes that different outcomes occur not because of class membership itself but because of some unidentified characteristics, such as income or education, that are correlated with both class membership and with geography—in other words, markup disparities are caused by geographically-related disparate impact. Unfortunately there is not enough information to know for sure which method will provide a disparity estimate that is closer to the truth. While we are relying largely on a disparate impact theory of lender liability, the choice of estimation method depends on how auto dealers decide markups. If their decisions are driven by both race-based and non-race-based factors, then neither method will provide a perfect estimate. The OR Method may overestimate racial disparities by attributing exclusively to race differences that are driven in part by factors associated with geography; whereas the Method will almost certainly underestimate racial disparities by assuming no race-based treatment whatsoever.

In light of the above, we recommend relying applyingen OR's original method rather than adopting the alternative proposed by sexpert in proceeding with the upcoming PARRs and ARC determinations, at least for now. First, we believe our overall approach (like s) is an improvement over standard industry and regulatory approaches to proxying. Second, there is no inherently "right" answer to the question of which estimation method to use; the choice can reasonably depend on the facts of a particular matter. Third, the OR Method is reasonable under the circumstances; even though there may be some risk of overestimating disparities, the alternative presents an equal (if not greater) risk of underestimatesting disparities and thus consumer harm.

We would add two important caveats. First, the alternative method proposed by is not invalid or unreasonable, and thus could potentially suggest a lower bound on disparities that we should bear in mind as we make decisions on how to proceed in the current auto lending matters. Second, OR will continue to evaluate ways of enhancing its method, and additional PARR responses and discussions with other regulators and academics may help identify adjustments or alternative methods for consideration. For now, though, we would like to proceed in reliance on the existing OR method in proceeding with the upcoming PARRs and ARC determinations.

Comment [EBW3]: If I have this right, I think it's an important cayeat.

Comment [EBW4]: Should we mention that we asked them for data supporting their DI theory and we didn't find it convincing? (I'm hazy on whether that ever happened.)

Comment [BES5]: To be fair and realistic, buyers also participate in this process. A buyer does not necessary need to accept what the dealer offers. The uncertainty here is whether dealers treat borrowers differently on the basis of race/ethnicity in the determination process. As for impact, I suppose the issue may be how class membership is associated with other characteristics that are leading to inequitable outcomes.

Comment [RJKG6]: I think it would also be helpful to say (if we can) that the OR method relies on well accepted statistical methods of performing a regression and that the the proposed proposed uses unconventional methods (of creating additional data points). I recall that Eric W. said this at some point, and I think it is worth noting. In my conversation with Legal today, they found this compelling.

comment [BES7]: s method is not unconventional from other perspectives. His approach is equivalent (at least in the estimation of the disparities...not necessarily standard errors) to imputing the race and ethnicity using the probabilities for prediction of those characteristics. It may be novel in this context, but imputation is used widely in other settings.

Comment [RJKG8]: I think it would be very helpful to add a sentence noting that given that our proxy methodology relies on surname in addition to geography, this undermines the Siskin estimation approach.

Comment [BES9]: With respect to footnote 3 – just so that I understand: 1) sizing up consumers on the basis of race and employing a different negotiation strategy would be treatment and (2) racial differences in negotiating ability (holding constant a dealer's strategy across all negotiations) would be impact?

Comment [BES10]: Siskin relies on both surname and geography. He has (verbally) motivated his impact story based on unobservables correlated with geography.. but did not provide an explanation connected to the use of a surname based proxy.

Comment [BES11]: I would also add that we would want to keep ourselves open to innovations/improvements to methodology. (Might want to ignore this comment as you discuss this point in the subsequent paragraph.)

³ There is good reason to believe that stereotypes based on race and ethnicity play a role in dealer markup decisions. In a meeting with and me, the chief lobbyist for the suggested that auto dealers "size up" consumers in deciding how to approach the markup negotiation, and without skipping a beat noted that there are racial and ethnic differences in negotiation ability.

⁴ We would also note that that the OR proxy method often yields disparity estimates that are <u>lower</u> than those estimated using common threshold-based methods.

Seliance on the OR Method in a PARR letter, which sets forth preliminary findings, does not commit the Bureau to relying on additional methods as particular matters may evolve. For example, it is impossible to predict what methodology would be applied should a particular matter proceed to litigation, given the uncertainties as to who our testifying expert would be and the particular facts of a matter, including the extent of evidence of intentional discrimination, what the relevant defenses of the institution are, and the consistency of disparities across various methodological approaches.