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Dear Dr. Taragin,

Thank you for your submission entitled “Beyond `Horizontal’ and `Vertical’: The Welfare Effects of Complex Integration” to the *Journal of Industrial Economics*. I have now heard back from three referees who are experts in this area. Based on their input and my own reading of the paper I have decided to request a significant revision to the manuscript, which I will describe below.

The referee’s bottom line recommendations are extremely varied, but their reports share many commonalities. Referee one (R1) recommends a revise and resubmit, arguing the paper has a contribution as a reference piece. R1 suggests dropping the Republic/Santek analysis and putting more emphasis on clarifying the simulation analysis. Referee two (R2) recommends an accepting the paper with revisions, but acknowledges that it is a close call based on whether or not the paper represents a significant enough extension of Sheu and Taragin (2021). Referee three (R3) argues that the paper should be rejected. R3 notes that mergers of this kind are not novel in the literature, did not find the simulation results enlightening, and felt that the Republic/Santek application was too stylized to be useful.

I read the work several times myself and also revisited Sheu and Taragin (2021). Like R1 and R2, I appreciated Section 2 as a valuable reference resource, but felt it did not offer a significant research contribution on its own. Incidentally, this section imposes a logit assumption in (1), but is this really needed before turning to the simulation exercises in Sections 3 and 4?

My views on the simulation exercise in Section 3 align most closely with R3, but I am a bit more positive. I have two interrelated concerns. First, taken literally the distributions in Figures 1-3 are functions of the underlying distribution of mergers considered as part of the simulation data generating process (DGP). However, as I understand it, there is no empirical content in this underlying distribution. I share R1 and R3’s confusion over exactly how the DGP is calibrated, but more importantly I have no idea whether the distribution is meant to reflect the distribution of all mergers, all notified mergers, all challenged mergers, or some notion of potential mergers. Moreover, because of the restrictive substitution assumptions in the demand side of the DGP, my strong suspicion is that these results are not reflective of any relevant distribution of mergers. Hence, I tend to take most of the magnitudes in this part of the paper with a grain of salt. Moreover, many of the sign results---such as the fact that higher retailer bargaining power reduces the impact of EDM---feel like they should be established as comparative statics in the theory section rather than simulated outcomes. In the end, I was left with the feeling that this section of the paper was trying to shed light on fundamentally empirical questions of how large countervailing forces are in practice without the benefit of data.

Since it is grounded in a litigated merger, the Republic/Santek exercise in Section 4 has the potential to address this concern at least partially. However, it currently reads like more of an afterthought, which seems to be R1's feeling as well. I shared R3's frustration regarding how to think about the necessary assumptions for both bargaining and demand in this context.

So is there a path to publication? In the end, I think R2 set a good bar for the simulations: "the point of doing the simulation [is] to try and provide some qualitative results about the direction/nature of the net effect of the various countervailing forces and what this depends on." If you can convincingly deliver on this, then the paper can inform practitioners on the key elements to be sure to precisely capture in a merger simulation exercise. My biggest concern is that I don't understand why the range (much less distribution) of parameters you consider is interesting. Therefore, I propose you combine Sections 3 and 4 using the Republic/Santek merger as a "central" point of calibration and exploring perturbations of that point to establish how changes to the underlying model assumptions impact outcomes of interest. In particular, I will be looking for you to deliver on the following:

> 1. Be very clear on how the central point is parameterized/calibrated. Be clear about what data is used to pin down what parameters. Also note what parameters you will vary either because they are not well identified with available data or because you want to consider sensitivity.
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> 2. Be sure to compare simulations that allow for the "complex" nature of Republic/Santek versus the more vanilla simulations considered in ST (2021). This is important to capture this papers contribution.
>
> 3. Be sure to consider how the nature of bargaining and downstream diversion will impact the results. For the later, you would need to go beyond a multinational logit model, but a nested logit should be able to capture the intuition. I'm not asking you to estimate substitution in this context since it doesn't seem like you have the data to do so (although I'd love to be shown wrong on this point!). I do want to know whether varying substitution patterns which fit the data you do have are likely to alter the qualitative outcomes of the merger simulation.

When presenting your results, please consider whether the simulations should be presented as the result of a statistical sampling (as is done now) or more in the vein of counterfactual analysis where you vary one parameter at a time. The argument for the statistical sampling approach is that parameters may interact---although you haven't clearly established that in most of the current results. The argument for the one parameter at a time approach is that it can be more closely tied to the institution presented in the theory section. If you are tempted to do the sampling approach because there are many parameters to vary, consider whether you should instead focus the reader's attention on the most important/illustrative results.

My hope is that while the analysis will necessarily be stylized, it would allow you to directly illustrate the importance for accounting for the vertical integration of existing firms in merger analysis and thereby show why the results in this paper are an important extension over ST (2021). While the proposed analysis is not meant to be the "last word" on the Republic/Santek merger, speaking to that episode will allow for some empirical grounding of the exercise.

Sensitivity analysis around this merger should allow this section to make many of the points currently discussed in Section 3. Eliminating a section should also allow you to streamline the paper substantially.

In addition to this major revision request, please also address *all* of the referee comments in the attached reports. I will send the revised manuscript to the same slate of referees for the next round.

If you choose to undertake this revision, please submit a revised manuscript together with responses detailing how you have addressed my comments as well as each point raised by the referees within one year of receipt of this letter. If you decide to submit the paper to another journal, please let me know by email. If you find any of the above instructions unclear, feel free to contact me directly for clarification.

Thank you again for the opportunity to review your work for the *Journal*. While of course I can make no guarantee that I will be able to publish a revision. I hope that you will take up this invitation and look forward to seeing the revised manuscript.

Sincerely,

Paul L. E. Grieco
Journal of Industrial Economics