

Revision To-do List

Major tasks:

1. **[Expositional]** Discuss the shared features and mechanisms of the supply-side and demand-side EOD models (and their combinations) that renders them to have the similar market equilibrium results. [R1, AE]
2. **[?]** Regarding the assumption of Proposition 6 [R1,AE]
 - Check Bimpikis' assumptions.
 - See if we can run the estimation using the assumption $r_{ij}/\lambda_{ij} = r_i/\lambda_i$
 - Can we show using data which assumption makes more sense?
3. **[More Analysis]** Extend the theoretical and empirical model to incorporate region-specific parameters [R1]
 - (a) Proof for the theoretical model may not be feasible; may cite AE's comment that we are not asked to show this for the theory part
 - (b) May estimate the empirical model incorporating region-specific parameters; but try to keep it at minimum – only for calibration, avoid discussion on identification
 - (c) May show empirically (or simulation?) how much heterogeneity in the assumptions may lead the results fall apart
 - (d) For the price coefficient: we already have heterogeneity in price elasticity. We may check if Rosaia has modeled heterogeneous price response for different regions and, if not, we may push back on this.
4. Compare the intermediate values calculated to external estimates/data [R2]
 - Number of drivers (likely to be reasonable)
 - Idle time and pickup time (**This is directly connected to 5, though R2 did not connect the two**)

5. **[More Analysis]** Add trip length to the model and run the estimation and counterfactuals [R2, AE]
 - Adding borough-day level trip time to the model does not give reasonable result
 - However, R2 does not explicitly asks for a model with trip time; instead, he asks for discussion on several issues. We may decide whether we will continue trying to incorporate trip time in the model in alternative ways or run other analysis instead.
6. **[More Analysis]** Run estimation with regions defined as finer spatial grids. [R2]

May address this using the taxi zones in three ways:

 - Use all taxi zones. To avoid sparsity issues, define relative outflow using $\frac{\vec{r}_i}{\bar{r}_i}$
 - Pick a subset of the taxi zones that does not lead to sparsity issue
 - Partition the taxi zones into high/low density zones
7. **[More Analysis]** Show how much of the results depend on the response functions of customers and drivers to prices and wages and the functional forms on how more drivers/customers affect pickup times [R2, AE]
 - e.g. show for one convex function and one concave function
8. **[Expositional]** Explain why study a counterfactual of Uber being small but not how Uber is compared to Lyft and Via [R2]
9. Benchmark the results against literature [AE]
10. Streamline and restructure the counterfactual session [AE]

Minor tasks:

1. R1 Minor comment 1
2. Tone down the contribution on the identification result
3. Proofread and fix the typos