Post-merger price variation matters, so why do merger retrospectives ignore it?

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BACKGROUND

- The price-effect of past mergers has been extensively researched over the past two decades. The overwhelming majority of these studies estimate the over-time average price effect of the merger.
- This is counter-intuitive because merger guidelines agree that no intervention is needed if the post-merger price increase disappears within a reasonable amount of time, for example because of new entry. Of course, for entry to occur a potential entrant would have to find such entry profitable, and the extent of entry would have to be such that prices would revert to (or remain at) pre-merger levels.
- Retrospective studies could verify whether these conditions were fulfilled after a merger. However, entry and its effects are a gradual process. Looking at the average effect after the merger (often averaged over many years) masks important information about this process. Instead, this would require looking at the dynamics of post-merger prices in order to identify whether pre-merger expectations about entry and the effect of entry were correct.

METHODOLOGY

- First, we provide a review of 64 retrospective merger studies. Our focus is on how post-merger time periods are handled: do they estimate post-merger effects averaged over all periods (pooled model), or do they estimate periodic (such as annual) effects (unpooled model).
- To demonstrate how the pooled model leads to potentially incorrect conclusions about the effect of the merger, we run a set of Monte Carlo simulations to generate price data. We then estimate the coefficients of the pooled as well as the unpooled models for this simulated data to gauge how far off the incorrect model estimates are.

KEY FINDINGS

- We find that more than 80% (55 mergers) of the previous studies estimate post-merger average price effects (pooled model), and yearly effects were estimated for only 12 mergers (unpooled model).
- By running a set of Monte Carlo simulations we show that estimating the mean post-merger price effect might lead to erroneous conclusions on the effect of the merger. Our simulations demonstrate that potentially all studies — using the pooled model — that concluded that the merger led to a price increase, could have been incorrect, and the price-increase disappeared within a reasonable time. This is more likely where the studies have large samples (for example, daily price data over a large cross section).
- Similarly, up to half of the studies that concluded — based on the pooled model — that the merger did not increase prices might have been wrong, and after a short period of unchanged prices, prices went up.
- Finally, studies that estimate that the merger reduced prices can potentially all be wrong in their conclusion on the merger if the merger was followed by a price drop and then a price-increase.

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POLICY ISSUES

- Merger retrospectives are typically conducted to inform policy-makers about the fitness of merger control for filtering out and remedying price-increasing mergers. For this reason, the conclusion on whether a merger increased prices is crucial. We showed above that that the probability of making the wrong conclusion is very high if the wrong empirical model is used.
- Estimating the unpooled model does a lot more than just showing whether the merger significantly increased prices in the *t*-th period after the merger. It gives the researcher highly valuable information on the dynamics of post-merger prices. This is important not only because one cares about whether prices eventually revert to pre-merger levels, but it also identifies whether prices remain stable or unstable over time. These two outcomes can have very different welfare implications and would lead to different policy conclusions.

SUGGESTED CITATIONS

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