



## A Caution for Retrospective Merger Reviews

**O**n April 12, 2019, the Federal Trade Commission (FTC) held an information-gathering hearing on the efficacy and potential of its merger retrospective program to determine if and how it should conduct more retrospective studies of consummated mergers. Retrospective merger studies by the FTC, Department of Justice, and academics have observed adverse merger effects within the airline, hospital, and consumer goods industries, and suggest that more retrospective studies could provide insight into improving the prospective merger review process. As these past studies show, however, merger retrospectives are subject to a slew of issues regarding feasibility, methodology, and costs, which—taken separately or collectively—



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could lead to misleading or conflicting results. As such, the FTC should proceed cautiously when designing its studies and relying on study results when pursuing future enforcement actions or reviewing prospective mergers.

### Background

A retrospective merger analysis attempts to determine *ex post* how, if at all, a particular merger affected competition in one or more markets. See Joseph Farrell et al., *Economics at the FTC: Retrospective Merger Analysis with a Focus on Hospitals* (2009). Typically, researchers use the “differences-in-differences” (DiD) method to track how a merger affected the market. DiD compares the merged

entity to a control group similar to the merged entity but unaffected by the merger and observes how they differ over a period of time post-merger in metrics like product price, quality, output, and innovation. A study seeking only to measure merger effects on the market may stop there. Alternatively, a retrospective review following the case study approach

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may consider the agency’s initial review of the transaction and compare actual merger effects to agency predictions.

In theory, retrospective merger analyses could help identify flaws in the prospective merger review process. In his remarks at the FTC’s April hearing, Chairman

Joseph Simons acknowledged that more studies could improve the analytics and predictive tools agencies use during merger investigations, assess whether pre- and post-merger remedies are effective, and help inform judicial review of prospective transactions. See Joseph J. Simons, Opening Remarks, Hearings on Competition and Consumer Protection in the 21st Century: Merger Retrospectives (April 12, 2019). Commissioner Rebecca Kelly Slaughter agreed, citing the usefulness of recent retrospectives on hospital mergers and remedies. In particular, Commissioner Slaughter framed retrospective merger review as an opportunity to fix past agencies' mistakes and supported focusing resources on reviewing consummated vertical mergers. See Rebecca Kelly Slaughter, Remarks, *Merger Retrospective Lessons from Mr. Rogers*, Hearings on Competition and Consumer Protection in the 21st Century: Merger Retrospectives (April 12, 2019).

### Inherent Issues

Despite the optimism expressed by the FTC, there are several "inconvenient truths" about merger retrospectives that may limit the force of their findings.

**Feasibility.** An optimally useful retrospective merger analysis

requires precise pre- and post-merger data on the market products relevant to the merger and data on the agency's predictions regarding the merger. See Dennis W. Carlton, *Why We Need to Measure the Effect of Merger Policy and How to Do It*, 1 Comp. Pol'y Int'l 5 77 (Spring 2009). But as an initial matter, it may not be feasible to gather pre- and post-merger market data, even where the FTC compels production from the parties. Some data are too difficult to distill because a merger might affect several markets—such as when a banking merger affects deposit and loan products—or have network effects that require consideration of markets where the merging parties did not compete directly. See Farrell et al., *supra* at 371. Other data might not be quantifiable—like innovation, quality, or variety—and be left to subjective qualitative measures or disregarded entirely.

**Methodology.** Even if the data are accessible, decisions on methodology can produce substantially different results when studying the same sample. Fundamentally, retrospective studies present myriad choices—such as on data sources, price measures, control groups, and statistical methods—any of which could affect calculations of the measured effect or estimated counterfactual of "What would the

metric be without the merger?" See Gregory J. Werden, *Inconvenient Truths on Merger Retrospective Studies*, 2015 J. Antitrust Enforcement 3 287, 291. The study's timing-period, for example, is key and sets the amount of time before and after the merger from when to collect data. Results may be confounded if data are collected so long after the merger that shocks from other unrelated events in the market are captured and unaccounted for, such as a merger or acquisition by another company.

A threshold issue arises with the potential of selection bias affecting which industries are even studied, which may then affect which industries later receive enhanced scrutiny from the agencies. Since comparing actual data to counterfactual, non-merger estimates requires comprehensive data collection and rigorous economic modeling, merger retrospectives tend to focus on industries where firms compete in multiple markets and where data—typically pricing data—are readily available. They also tend to focus on transactions on the "margin" that raised antitrust concerns but did not trigger successful enforcement actions for whatever idiosyncratic reason. See Farrell et al., *supra* at 372. Overly focusing on selected industries may lead to misleading conclusions that some markets are more

susceptible to negative merger effects than others. Moreover, retrospective studies may overemphasize the importance of merger effects on price; fail to account for merger effects on output, quality, and innovation; or inadequately account for transactions that did not raise antitrust concerns but may have shown related post-transaction effects on the market.

Retrospective merger studies may also be limited in scope due to difficulties in establishing control groups necessary to account for non-merger effects. A quality control group is necessary to any DiD-based study. But in certain industries, like those that are national or where there are spillover effects from an oligopoly, establishing a control group may be impossible. Even if control groups are available, choice of group still matters. A study of the Northwest-Delta airline merger shows how using one set of control groups yielded an estimated average fare rate increase between 0 percent and 6 percent, but using another control group yielded a 1 percent fare increase. See Aditi Mehta and Nathan Miller, *Choosing the Appropriate Control Group in Merger Evaluations' in the Pros and Cons of Merger Control* (Swedish Competition Authority 2012). Though scholars posited using machine learning to predict

market effects absent a merger, it may be a while before approvable methods exist.

Differences due to methodology caution against using any one study as a panacea, or using a series of studies to influence antitrust policy. For example, initial analysis of Atlantic Richfield Company's long-term lease and conversion of Thrifty gasoline stations in California observed significant post-merger price increases with one data source, but researchers later using another data source

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found that the effects were trivial. See Werden, *supra* at 291. In another instance, the FTC's report on wholesale price effects in the United States petroleum industry greatly differed from a similar report by the General Accounting Office (GAO). There, the GAO found a 6.9 cent per gallon increase for branded gasoline due to Tosco's 1997 acquisition of a Unocal refinery, whereas FTC economists found the price of branded gasoline significantly decreased because of the acquisition. See *id.* (citing Daniel Hosken

et al., *Does Concentration Matter? Measurement of Petroleum Merger Price Effects*, 100 Am. Econ. Rev. 45 (2011)).

**Costs.** Large-scale studies are expensive, and staffing shortages and increased merger filings have left the FTC overwhelmed and underbudgeted. Naturally, resource constraints may affect which industries are selected for study, access to data, and overall rigor of the analysis. During the FTC's April hearing, Commissioner Slaughter called for Congress to increase the FTC's budget by \$50 million annually and for the addition of attorneys and economists. It is likely that private studies will be needed to supplement the government's efforts. Generally, though, high costs and inadequate funding suggest that the FTC should postpone more studies until they have the resources to conduct them thoroughly.

### Other Considerations

Before pursuing more retrospective studies, the FTC should clearly define the studies' scope and purpose. For example, would the studies be used to pursue enforcement actions against a merged entity that later manifested anticompetitive effects despite the agency's predictions? Commissioner Slaughter hinted at this when she suggested the FTC could use the

threat of a retrospective investigation to deter merging parties from engaging in anticompetitive conduct, especially in the vertical context. The commissioner's suggestion echoes her dissent from Staples Inc.'s \$483 million acquisition of Essendant Inc. In opposing this transaction that combined America's largest office products retailer with the country's largest office products wholesale distributor, Commissioner Slaughter argued that courts should follow up with retrospective assessment and enforcement if necessary where the merger raised significant concern within the commission but was not challenged in court. Though Chairman Simons supports using retrospective studies to inform judicial review of similar transactions, he and other commissioners have yet to commit to using the studies for enforcement purposes against a merged entity. The threat of over-enforcement due to study error suggests they should not.

Market intricacies also show that agencies should be wary of using these studies to pursue enforcement actions or change antitrust policy. One study cannot be used to accurately predict how another market player will act because market players follow their own decision-making procedures. For example, after the Millers-Coors

joint venture, prices rose unexpectedly for Miller and Coors beer even though prices decreased for competitors Corona and Heineken. It was later discovered that the market exhibited a leader-follower pricing model: after competitor InBev increased the price of Budweiser, Millers-Coors was sure to follow. Similarly, in studying the nearly-blocked 2008 Whirlpool-Maytag merger, researchers found post-merger prices increased for dryers and dishwashers but not for other appliances like clothes washers or refrigerators. See Orley C. Ashenfelter et al., *The Price Effects of a Large Merger of Manufacturers: A Case Study of Maytag-Whirlpool*, 5 Am. Econ. J.: Econ. Pol'y 1 239 (2013). Though this merger seemed to adhere to the theory that merging parties will increase price more than rivals, the researchers were not able to definitively identify which conduct caused the effect. Later, internal documents discovered in an unrelated Whirlpool matter revealed the companies' plans for the washer/dryer pricing relationship.

Instead, the FTC should limit the use of these studies to improving agency review procedures; it also should avoid any grand generalizations about merger effects. To do so, future studies will have to reduce their emphasis on price

effects. As Prof. Dennis Carlton notes, "retrospective studies that ask [only] whether prices went up post-merger are surprisingly poor guides for analyzing merger policy." Carlton, *supra* at 77. Yet, many retrospective merger studies rely heavily on pricing data because they are the most readily available. Future studies must properly consider nonprice effects—such as when quality decisions affect price, or when increased competition increases congestion costs—when assessing merger outcomes.