

ARTICLE

How to make sensible merger policies?

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Merger policy is a topic of heated debate. At times, the rhetoric on both sides seems exaggerated. Some claim that, partially due to lax merger policy, industry concentration in the U.S. has dramatically increased, creating market power almost everywhere and thereby harming the U.S. economy. Some go even further and claim that mergers generally create no efficiencies and so are never beneficial to the economy. On the opposite side, others claim that a more aggressive antitrust policy will simply force us back into the dark ages of antitrust of the 1950s and 1960s. If merger policy is to be rescued from being used as a political football to get elected, someone has to take charge and figure out what the evidence shows about the impact of merger policy on the economy, and, in light of that determination, adjust merger policy if there is a need to do so. The economists at the FTC and Department of Justice are best suited to do so.

No one has done a good job of answering what types of ex-ante merger analyses worked and which did not, i.e., what analyses have correctly predicted the impacts of a proposed merger. Instead, the evidence to date has been distorted or misinterpreted. The economists at the government agencies where merger decisions are constantly being made are the ones best suited to properly evaluate the evidence. This is because most mergers, at least until recently, do not result in litigation, so it is rare to have a record of what models, methods, assumptions, or predictions each party made. Therefore, it is generally not possible to evaluate ex-post what models, methods, assumptions, or predictions were accurate or not. To the extent that the unavailability of ex-post data would restrict government agencies from doing an ex-post analysis, I would favor some arrangement whereby the merging parties must make available to the agencies limited ex-post information to enable such an evaluation, perhaps as a condition for allowing the merger to go forward.

Let me first summarize what the evidence on concentration and other indicators of market power does and does not show. Then I will explain why the economists at the government antitrust agencies are likely to be the ones with the knowledge and data needed to properly evaluate the success of ex-ante merger analysis. For a fuller discussion of these issues, I refer the reader to some of my prior articles, in particular, [Carlton \(2022\)](#), [Carlton and Heyer \(2020\)](#), and [Carlton \(2009\)](#).

What the evidence seems to show, although there is some debate about it, is that when concentration is measured in “industries” as defined by national industry codes, concentration in the U.S. has increased overall. Even if these national industry codes represent relevant antitrust markets, however, the increases are quite modest and would still show that the large majority of U.S. industries are not characterized by very high concentrations. For example, in 2012 roughly 80 percent of U.S. manufacturing industries have HHIs below 1500, which is usually considered to indicate relatively unconcentrated markets.

Although notoriously difficult to calculate when intangibles are involved, the profitability of firms seems to have increased over the last few decades. Perhaps more relevant for industrial organization economists, a traditional measure of market power, the Lerner Index (defined as price minus marginal cost divided by price) appears to have risen. For example, the widely cited paper of [De Loecker et al. \(2020\)](#) estimates that the Lerner Index rose from 1.2 to 1.6 between 1980 and 2012. Although it is easy to understand why such a large increase, if true, could be alarming and lead to a call for policies designed to limit increases in market power through more aggressive antitrust policy (including merger policy), that would be an inaccurate interpretation of the results, even if one accepted them. The reason is that research has also shown that in the industries where concentration and the Lerner Index have increased, it is also true that the firms that have grown large are typically the most efficient ones and the ones who have invested in computer technology.

Importantly, and this seems to me a crucial piece of information, research shows that, although the price-cost margin (i.e., the Lerner Index) has risen for these efficient firms and driven up the average for their respective industries, prices have not risen. Let me repeat that. There is no evidence that the increased concentration has led to increased prices. It is likely that these efficient firms sell products that consumers want and that is why these firms have grown. Although it would be better for consumers if the prices of these efficient firms fell to reflect their lower cost, at least based on price, consumers do not seem worse off and are probably better off since consumers prefer the products of these firms to those of other firms. Thus, this evidence as support for a more aggressive antitrust policy seems weak at best. But, again, on the opposite side of the debate, there is also weak support for certain claims. For example, any claim that there is little harm from lax antitrust policy because

entry will fix any antitrust concern lacks solid evidence. Successful entry into many industries appears generally difficult.

The direct evidence on the effect of mergers is primarily based on merger retrospectives in which the analyst looks at what happens after a consummated merger: did prices rise? I believe that such retrospectives improve economists' understanding of the effect of mergers, even though most such studies focus on post-merger prices and could be usefully expanded to include post-merger investments and innovations. However, even the studies on price have numerous limitations from the point of view of evaluating policy efficacy for at least two reasons.

First, there is a basic problem of confusing hindsight with foresight. To see this point simply, suppose mergers had no effect on either market power or efficiency. Then, if one randomly sampled mergers, one would find that, post-merger, about 50% of the mergers were followed by a price decrease while 50% were followed by a price increase, relative to what otherwise would be predicted based on observable factors at the time of the merger. On average, there would be no price effect post-merger. It is incorrect to conclude that merger policy is too lax by observing that there are many mergers in which prices subsequently increase. Unless one can identify **beforehand** which mergers will lead to price increases and associate that price increase with increased market power, a retrospective study showing that prices increased after the merger tells one little about whether it was a mistake to allow that merger without challenging it. One cannot ignore the need to show the link between the price increase and increased market power. Why should the government stop a merger on antitrust grounds just because the price goes up post-merger, unless that price increase would not have occurred but for the exercise of additional market power? For example, suppose Joe, who owns Firm A, is not an astute businessman and charges a below-market price. Harry, a rival of Joe's, buys Firm A and raises the price to the market price. Why should that be an antitrust violation? There is no market power involved in the price increase.

Second, analyses of merger retrospective studies, including those in the influential [Kwoka \(2015\)](#) book, are able to report on only those studies that have been done to date. As [Vita and Osinski \(2019\)](#) point out, those studies often are outdated and draw from a narrow set of industries. For example, many of Kwoka's reported studies are from the retrospectives of early mergers in the airline industry. Later, presumably more relevant, studies of the recent legacy airline mergers were not included. (Since Kwoka published his book, there have been such studies that often find that the recent airline mergers were pro-competitive. See, e.g., [Carlton et al. \(2019\)](#).) If one were to analyze an airline merger today, one would have to decide whether the early studies or later ones are more relevant to the problem at hand. Moreover, the main takeaway many readers obtain from the Kwoka studies is that

the average price increase of the examined mergers is between 4% and 5%, though there is a lot of variation. Yet, interestingly, the median price increase is less than 1%. Still, Kwoka's book raises the challenge as to whether one could predict **in advance** any of the large price increases that he reports for some of the retrospectives.

Some retrospectives have tried to deal with the decision-making problem mentioned above and have done so by focusing attention on only those mergers that appeared possibly problematic—that is, mergers that people at the time thought might raise concerns. What they find is telling. For many of those mergers, prices do rise, often in the range of 3-7%. That has led some to reasonably conclude that a more aggressive antitrust policy toward mergers is needed. But this finding of post-merger price increases does not hold for all mergers. Moreover, one key finding is that the products on which the studies find post-merger price increases are sometimes in product categories where there were no antitrust concerns. What is a policymaker supposed to do with such a finding? It means that there was not an obvious way to make a reliable prediction *ex-ante* of a price increase for many of these mergers. I would say that the recent work tells me that it is absolutely wrong to presume that mergers that, for example, reduce the number of firms from 5 to 4 are always fine. It is also absolutely wrong to presume that such mergers will always raise prices. This means we need a better assessment of the tools used to evaluate mergers *ex-ante* and need to figure out which tools work best.

I should also stress that no one has, as far as I know, tackled the crucial issue of how the stringency of merger policy affects the incentive to merge. If one believes that mergers generate no efficiencies, then this is not a relevant issue. But it is not credible to me to endorse such a belief. There are too many mergers in areas where no antitrust concerns arise which lead me to conclude that such rearrangements of assets and control are not serving some useful purpose. If a more aggressive merger policy dissuades efficient mergers, then that is a cost to the American economy that should influence the stringency of merger policy.

Do the limitations of merger retrospectives for evaluating policy efficacy mean there is no need to investigate merger policy to see whether it can be improved? Absolutely not. But the answer as to how to do that involves much more than doing merger retrospectives, no matter how valuable those can be. Instead, what is needed is for antitrust agencies to document, at the time of the merger decision, the models and methods they are using to evaluate each merger. For example, the agencies often use a particular merger simulation model to predict a merger's effect on the price, while other times they may use a variety of reduced-form price predictions. But regardless of which methods they are using, they should keep track of the assumptions and predictions of all the methods and models used.

Then, *ex-post*, they should ask which models, methods, and assumptions worked best *ex-post* (i.e., which predicted the actual outcome most accurately) and which ones did not work and why? Although it is undoubtedly time-consuming, this type of analysis is well understood. In fact, one of my favorite papers that I use in my industrial organization Ph.D. class is [Peters \(2006\)](#). In that paper, Peters analyzes several consummated airline mergers using data available at the time of the merger decision to build a variety of different merger simulation models for each merger. Next, he compares the predictions of the various models to what actually happened, and then—this is a key insight—he figures out why there is a discrepancy between a model’s predictions and what actually happened. (His findings, by the way, are not an encouraging endorsement of the accuracy of merger simulation applied to the airline industry. Hopefully, the models have gotten better.) One concern he raises is whether the standard assumptions that so dominate merger simulation—that of unilateral, static decision making—make sense for the mergers he examines. He finds the assumption questionable. Only by doing lots of studies such as Peters will the economists at the government agencies enable decision-making in mergers to improve. I should also add that the parties involved in a merger often hire consultants (like me) to do their own merger analysis. I think it would be enormously useful to see whose models, methods, and assumptions do better *ex-post* and why.

There is one other reason why the evaluation of such models and methods is critical. Many critics of the current antitrust policy have complained that economists are using impossibly complicated analyses that are hard for non-economists to understand and have never been tested. I do have sympathy with the position that complicated models that make predictions but have never been tested should be viewed with skepticism until it is shown that such models make accurate predictions.

I end on the topic of nascent competitors, a topic that has received much recent interest. I have always been skeptical of the confidence with which any analyst can claim that, but for a merger, one of the parties will grow into a powerful rival to the other party and develop innovative products. Really? How does one know? At the very least, I urge the agencies to study transactions that were called off because of government opposition and ask in how many of those did the hypothesized future competition develop? I suspect the track record will be a poor one.

It is easy to look back and claim, “If only I had been the decision maker, there is no way I would have allowed that merger to proceed.” Such perfect hindsight should not be confused with the decision-making problem that the antitrust authorities face, namely, given the data at hand, what is the best policy decision? The economists at the agencies are the ones best suited to use evidence on past mergers to figure out how to formulate merger policy going forward. If they want to enlist academics, especially young ones, to help them, that should be encouraged.

I disagree with those who claim that economics has put antitrust on the wrong track. Not only has economics improved antitrust policy, there is also a lot more that economists can do to improve antitrust decision-making and specifically merger policy.

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