

What if rising concentration were an indication of more competition, not less?

December 14, 2019

[Geoffrey A. Manne](#)

An oft-repeated claim of [conferences](#), [media](#), and left-wing [think tanks](#) is that lax antitrust enforcement has led to a substantial increase in concentration in the US economy of late, [strangling the economy](#), [harming workers](#), and saddling consumers with [greater markups](#) in the process. But what if rising concentration (and the current level of antitrust enforcement) were an indication of *more* competition, not less?

By now the concentration-as-antitrust-bogeyman story is virtually conventional wisdom, echoed, of course, by political candidates such as Elizabeth Warren [trying to cash in](#) on the need for a government response to such dire circumstances:

In industry after industry — airlines, banking, health care, agriculture, tech — a handful of corporate giants control more and more. The big guys are locking out smaller, newer competitors. They are crushing innovation. Even if you don't see the gears turning, this massive concentration means prices go up and quality goes down for everything from air travel to internet service.

But the claim that lax antitrust enforcement has led to increased concentration in the US and that it has caused economic harm has been debunked several times (for some of our own debunking, see Eric Fruits' posts [here](#), [here](#), and [here](#)). Or, more charitably to those who tirelessly repeat the claim as if it is "settled science," *it has been significantly called into question*.

Most recently, several working papers looking at the data on concentration in detail and attempting to identify the likely cause for the observed data, show *precisely the opposite relationship*. **The reason for increased concentration appears to be technological, not anticompetitive.** And, as might be expected from that cause, its effects are beneficial. Indeed, the story is both intuitive and positive.

What's more, while *national* concentration does appear to be increasing in some sectors of the economy, it's not actually so clear that the same is true for *local* concentration — which is often the relevant antitrust market.

The Industrial Revolution in Services *

Chang-Tai Hsieh

University of Chicago and NBER

Esteban Rossi-Hansberg

Princeton University and NBER

July 5, 2019

Abstract

The rise in national industry concentration in the US between 1977 and 2013 is driven by a new industrial revolution in three broad non-traded sectors: services, retail, and wholesale. Sectors where national concentration is rising have increased their share of employment, and the expansion is entirely driven by the number of local markets served by firms. Firm employment per market has either increased slightly at the MSA level, or decreased substantially at the county or establishment levels. In industries with increasing concentration, the expansion into more markets is more pronounced for the top 10% firms, but is present for the bottom 90% as well. These trends have not been accompanied by economy-wide concentration. Top U.S. firms are increasingly specialized in sectors with rising industry concentration, but their aggregate employment share has remained roughly stable. We argue that these facts are consistent with the availability of a new set of fixed-cost technologies that enable adopters to produce at lower marginal costs in all markets. We present a simple model of firm size and market entry to describe the menu of new technologies and trace its implications.

The most recent — and, I believe, most significant — corrective to the conventional story comes from economists [Chang-Tai Hsieh](#) of the University of Chicago and [Esteban Rossi-Hansberg](#) of Princeton University. As they write in a recent paper titled, “[The Industrial Revolution in Services](#)”:

We show that new technologies have enabled firms that adopt them to scale production over a large number of establishments dispersed across space. Firms that adopt this technology grow by increasing the number of local markets that they serve, but on average are smaller in the markets that they do serve. Unlike Henry Ford’s revolution in manufacturing more than a hundred years ago when manufacturing firms grew by concentrating production in a given location, **the new industrial revolution in non-traded sectors takes the form of horizontal expansion across more locations.** At the same time, multi-product firms are forced to exit industries where their productivity is low or where the new technology has had no effect. **Empirically we see that top firms in the overall economy are more focused and have larger market shares in their chosen sectors, but their size as a share of employment in the overall economy has not changed.** ([pp. 42-43](#)) (emphasis added).

This makes perfect sense. And it has the benefit of not second-guessing structural changes

made in response to technological change. Rather, it points to technological change as doing what it regularly does: improving productivity.

The implementation of new technology seems to be conferring benefits — it's just that these benefits are not evenly distributed across all firms and industries. But the assumption that larger firms are causing harm (or even that there is any harm in the first place, whatever the cause) is unmerited.

What the authors find is that the apparent rise in *national* concentration doesn't tell the relevant story, and the data certainly aren't consistent with assumptions that anticompetitive conduct is either a cause or a result of structural changes in the economy.

Hsieh and Rossi-Hansberg point out that increased concentration is not happening everywhere, but is being driven by just three industries:

First, we show that **the phenomena of rising concentration . . . is only seen in three broad sectors - services, wholesale, and retail. . .** [T]op firms have become more efficient over time, but our evidence indicates that this is only true for top firms in these three sectors. **In manufacturing, for example, concentration has fallen.**

Second, **rising concentration in these sectors is entirely driven by an increase [in] the number of local markets served by the top firms.** ([p. 4](#)) (emphasis added).

These findings are a gloss on a (then) working paper — *The Fall of the Labor Share and the Rise of Superstar Firms* — by David Autor, David Dorn, Lawrence F. Katz, Christina Patterson, and John Van Reenan (now [forthcoming](#) in the QJE). Autor et al. (2019) finds that concentration is rising, and that it is the result of increased productivity:

If globalization or technological changes push sales towards the most productive firms in each industry, product market concentration will rise as industries become increasingly dominated by superstar firms, which have high markups and a low labor share of value-added. We empirically assess seven predictions of this hypothesis: (i) industry sales will increasingly concentrate in a small number of firms; (ii) industries where concentration rises most will have the largest declines in the labor share; (iii) the fall in the labor share will be driven largely by reallocation rather than a fall in the unweighted mean labor share across all firms; (iv) the between-firm reallocation component of the fall in the labor share will be greatest in the sectors with the largest increases in market concentration; (v) the industries that are becoming more concentrated will exhibit faster growth of productivity; (vi) the aggregate markup will rise more than the typical firm's markup; and (vii) these patterns should be observed not only in U.S. firms, but also internationally. **We find support for all of these predictions.** (emphasis added).

This is alone is quite important (and seemingly often overlooked). Autor et al. (2019) finds that rising concentration is a result of increased productivity that weeds out less-efficient producers. This is a *good* thing.

But Hsieh & Rossi-Hansberg drill down into the data to find something perhaps even more significant: **the rise in concentration itself is limited to just a few sectors, and, where it is observed, it is predominantly a function of more efficient firms competing in more — and more localized — markets.** This means that competition is *increasing*, not decreasing, whether it is accompanied by an increase in concentration or not.

No matter how many times and under how many monikers the antitrust populists try to revive it, the [Structure-Conduct-Performance paradigm](#) remains as moribund as ever. Indeed, on this point, as [one of the new](#) antitrust agonists' own, Fiona Scott Morton, has [written](#) (along with co-authors Martin Gaynor and Steven Berry):

In short, there is no well-defined “causal effect of concentration on price,” but rather a set of hypotheses that can explain observed correlations of the joint outcomes of price, measured markups, market share, and concentration. As Bresnahan (1989) argued three decades ago, no clear interpretation of the impact of concentration is possible without a clear focus on equilibrium oligopoly demand and “supply,” where supply includes the list of the marginal cost functions of the firms and the nature of oligopoly competition.

Some of the recent literature on concentration, profits, and markups has simply reasserted the relevance of the old-style structure-conduct-performance correlations. For economists trained in subfields outside industrial organization, such correlations can be attractive.

Our own view, based on the well-established mainstream wisdom in the field of industrial organization for several decades, is that regressions of market outcomes on measures of industry structure like the Herfindahl-Hirschman Index should be given little weight in policy debates. Such correlations will not produce information about the causal estimates that policy demands. It is these causal relationships that will help us understand what, if anything, may be causing markups to rise. (emphasis added).

Indeed! And one reason for the enduring irrelevance of market concentration measures is well laid out in Hsieh and Rossi-Hansberg's paper:

This evidence is consistent with our view that increasing concentration is driven by new ICT-enabled technologies that ultimately raise aggregate industry TFP. **It is not consistent with the view that concentration is due to declining competition or entry barriers . . .**, as these forces will result in a decline in industry employment. ([pp. 4-5](#)) (emphasis added) The net effect is that there is essentially no change in concentration by the top firms in the economy as a

whole. **The “super-star” firms of today’s economy are larger in their chosen sectors and have unleashed productivity growth in these sectors, but they are not any larger as a share of the aggregate economy.** [\(p. 5\)](#)
(emphasis added)

Thus, to begin with, the claim that increased concentration leads to monopsony in labor markets (and thus unemployment) appears to be false. Hsieh and Rossi-Hansberg again:

[W]e find that total employment rises substantially in industries with rising concentration. This is true even when we look at total employment of the smaller firms in these industries. [\(p. 4\)](#) [S]ectors with more top firm concentration are the ones where total industry employment (as a share of aggregate employment) has also grown. The employment share of industries with increased top firm concentration grew from 70% in 1977 to 85% in 2013. [\(p. 9\)](#) **Firms throughout the size distribution increase employment in sectors with increasing concentration, not only the top 10% firms in the industry, although by definition the increase is larger among the top firms.** [\(p. 10\)](#) (emphasis added)

Again, what actually appears to be happening is that national-level growth in *concentration* is actually being driven by increased *competition* in certain industries at the local level:

93% of the growth in concentration comes from growth in the number of cities served by top firms, and only 7% comes from increased employment per city. . . . [A]verage employment per county and per establishment of top firms falls. So necessarily more than 100% of concentration growth has to come from the increase in the number of counties and establishments served by the top firms. [\(p.13\)](#)

The net effect is a decrease in the power of top firms relative to the economy as a whole, as the largest firms specialize more, and are dominant in fewer industries:

Top firms produce in more industries than the average firm, but less so in 2013 compared to 1977. The number of industries of a top 0.001% firm (relative to the average firm) fell from 35 in 1977 to 17 in 2013. The corresponding number for a top 0.01% firm is 21 industries in 1977 and 9 industries in 2013. [\(p. 17\)](#)

Thus, summing up, **technology has led to increased productivity as well as greater specialization by large firms, especially in relatively concentrated industries (exactly the opposite of the pessimistic stories):**

[T]op firms are now more specialized, are larger in the chosen industries, and these are precisely the industries that have experienced concentration growth. [\(p. 18\)](#)

Unsurprisingly (except to some...), the increase in concentration in certain industries does

not translate into an increase in concentration in the economy as a whole. In other words, workers can shift jobs between industries, and there is enough geographic and firm mobility to prevent monopsony. (Despite rampant assumptions that increased concentration is constraining labor competition everywhere...).

Although the employment share of top firms in an average industry has increased substantially, the employment share of the top firms in the aggregate economy has not. ([p. 15](#))

It is also simply not clearly the case that concentration is causing prices to rise or otherwise causing any harm. As Hsieh and Rossi-Hansberg note:

[T]he magnitude of the overall trend in markups is still controversial . . . and . . . the geographic expansion of top firms leads to declines in local concentration . . . that could enhance competition. ([p. 37](#))

Indeed, recent papers such as [Traina \(2018\)](#), [Gutiérrez and Philippon \(2017\)](#), and the [IMF \(2019\)](#) have found increasing markups over the last few decades *but at much more moderate rates* than the [famous De Loecker and Eeckhout \(2017\) study](#). Other parts of the anticompetitive narrative have been challenged as well. [Karabarbounis and Neiman \(2018\)](#) finds that profits have increased, but are still within their historical range. [Rinz \(2018\)](#) shows decreased wages in concentrated markets but also points out that local concentration has been *decreasing* over the relevant time period.

None of this should be so surprising. Has antitrust enforcement gotten more lax, leading to greater concentration? According to [Vita and Osinski \(2018\)](#), not so much. And how about the stagnant rate of new firms? Are incumbent monopolists killing off new startups? The more likely — albeit mundane — explanation, according to [Hopenhayn et al. \(2018\)](#), is that increased average firm age is due to an aging labor force. Lastly, the paper from Hsieh and Rossi-Hansberg discussed above is only the latest in a series of papers, including [Bessen \(2017\)](#), [Van Reenen \(2018\)](#), and [Autor et al. \(2019\)](#), that shows a rise in fixed costs due to investments in proprietary information technology, which correlates with increased concentration.

So what is the upshot of all this?

- First, as noted, employment has not decreased because of increased concentration; quite the opposite. Employment has increased in the industries that have experienced the most concentration at the national level.
- Second, this result suggests that the rise in concentrated industries has not led to increased market power over labor.
- Third, concentration itself needs to be understood more precisely. It is not explained by a simple narrative that the economy as a whole has experienced a great deal of concentration and this has been detrimental for consumers and workers. Specific industries have experienced national level concentration, but simultaneously those

same industries have become more specialized and expanded competition into local markets.

Surprisingly (because their paper has been around for a while and yet this conclusion is rarely recited by advocates for more intervention — although they happily use the paper to support claims of rising concentration), [Autor et al. \(2019\) finds the same thing](#):

Our formal model, detailed below, generates superstar effects from increases in the toughness of product market competition that raise the market share of the most productive firms in each sector at the expense of less productive competitors. . . . **An alternative perspective on the rise of superstar firms is that they reflect a diminution of competition, due to a weakening of U.S. antitrust enforcement** (Dottling, Gutierrez and Philippon, 2018). **Our findings on the similarity of trends in the U.S. and Europe, where antitrust authorities have acted more aggressively on large firms (Gutierrez and Philippon, 2018), combined with the fact that the concentrating sectors appear to be growing more productive and innovative, suggests that *this is unlikely to be the primary explanation***, although it may important in some specific industries (see Cooper et al, 2019, on healthcare for example). (emphasis added).

The popular narrative among Neo-Brandeisian antitrust scholars that lax antitrust enforcement has led to concentration detrimental to society is at base an empirical one. The findings of these empirical papers severely undermine the persuasiveness of that story.

[View Article](#)