

Robert Hall's Discussion of

“Diverging Trends in National and Local Concentration”

by Esteban Rossi-Hansberg, Pierre-Daniel Sarte, and Nicholas Trachter

The authors, RST in what follows, have delivered a focused, definitive paper, part of a broader research program on structural change in US product and labor markets. The subject of the paper is concentration. Measurement of concentration starts from market definition. Concentration depends on the pattern of market shares within a market, defined by a product, a geographic region, and a time period. A market is a specification of the product, region, and time such that a hypothetical monopolist would have market power—it could elevate its price substantially above marginal cost. The connection to concentration is the general belief that the actual market power of the firms selling in a market depends on the number and importance of the competitors selling in that market.

The most widely used measure of concentration—and the one used in this paper—is the HHI, the sum of the squared market shares of the sellers in a market. This measure is sensitive to both the number of sellers and their market shares, and is a sufficient statistic for the elevation of price over marginal cost in certain oligopoly models. However, other models, especially those involving collusion, predict substantial exercise of market power with prices marked up well above marginal cost, in the face of HHI measures suggesting rather less price elevation.

Some markets are national or international. The products in these markets have low transport cost across the country relative to price. A substantial body of research has found high and rising concentration in many national markets, primarily for manufactured goods. The paper confirms that finding. The paper does not pursue the key question of price elevation associated with rising concentration, but does cite much of the recent literature on that subject, such as Berger and co-authors, De Loecker and co-authors, Syverson, Traina, and this writer. That literature tends to find rising markups of price over marginal cost, though with substantial disagreements about the level and growth rates of the markups.

Two quite different approaches have evolved in this literature to find the level and growth of markups. Berger and co-authors build an oligopoly model that predicts how much a firm thinks its sales will fall if it increases its price—the slope of the residual demand facing the firm net of the supply response of its rivals. If the residual demand is highly elastic, the market disciplines any price increase and the market price is not far above marginal cost. If not, the equilibrium price is well above marginal cost. The other researchers listed above measure marginal cost directly, and then calculate the ratio of price to marginal cost.

The RST paper’s big contribution is to explore concentration in markets that are presumptively local rather than national. A threshold question in this line of research is how to set the boundaries of local markets. In principle, the boundaries, based on transport costs and similar factors, differ across products. For some products, notably beer and transit-mix concrete, a good deal of research has been done on this topic. But research covering all products, such as RST’s contribution, is limited to the use of data using existing boundaries to define the spatial markets. Figure 5 of the paper shows results for a variety of choices of spatial aggregation: national, metropolitan area, county, and zip code. None of these really makes the grade. National misses the whole point of the paper. Metropolitan areas are far too big for many products, as the authors’ example of a restaurant in Brooklyn demonstrates. Counties are ridiculously heterogeneous and the great majority are tiny. Zip codes are reasonably homogeneous in population but not in square mileage. An acute problem for many products is that zip codes flunk the basic test for spatial boundaries, because many of them lack any sellers of products that are widely consumed. The paper is candid about the challenge of these unpopulated zip codes, especially for measuring trends in concentration, where modest increases can result in zip codes disappearing from the sample. All things considered, however, the authors make a reasonable case that zip codes are the best of the available but flawed approaches to spatial market definition.

Similar comments apply to the boundaries of product markets. Figures 3 and 4 show that the downward trend of concentration across zip codes is weak when product boundaries are coarse (2-digit SIC codes) and much stronger when they are fine (8-digit SIC codes). The paper does not make a case that demand and supply substitution patterns favor the

8-digit boundaries. The paper by Berger and co-authors mentioned above does undertake such measurement on the demand side but not the supply side.

As a believer in measuring market power by calculating the ratio of price to correctly defined and measured marginal cost, I believe that measuring concentration has a limited role in diagnosing market power. RST's posture is that concentration has become a controversial issue on its own, and thus worthy of study even apart from any direct numerical connection between concentration and market power. The procedures of the two main competition authorities in the US, the Antitrust Division of the Department of Justice and the Federal Trade Commission, straddle this issue in an interesting way. Concentration, measured by the HHI, has a fully specified role in their screening of challenges to antitrust misconduct, especially mergers. But, once a challenge has survived screening, the agencies turn to direct analysis of price elevation (or wage depression, in some cases).

In another interesting paper on a related subject, "The Industrial Revolution in Services", Rossi-Hansberg and Chang-Tai Hsieh (RH) pursue the idea that services, broadly defined, are going through a revolution typified by Walmart's expansion in competition with local supermarkets. Whereas the RST paper emphasizes the general importance of the process across all industries, the RH paper places the revolution primarily in service-type industries where markets are local. Figure 7 in the RST paper shows that the truth lies in between.

In what RC call the New Industrial Revolution (NIR), firms use advanced IT to standardize products and production methods across thousands of nearly identical establishments. Firms may own all these establishments (Starbucks) or franchise smaller firms to deliver products (McDonalds). The sectors most influenced are finance-insurance-real estate, retail trade, wholesale trade, and services. Sectors undergoing the revolution grow faster than other sectors, refuting market power stories and supporting productivity stories.

The NIR view emphasizes the role of computerization and broadband communication. The Fixed Asset Tables of the National Income and Product Accounts report stocks of intellectual property by sector. I define the IP intensity of a sector as the ratio of the value of its IP to the value of its structures. I show the ratio of the IP intensity of the NIR sector (trade, health, accommodation, and food services) to the non-NIR sector.

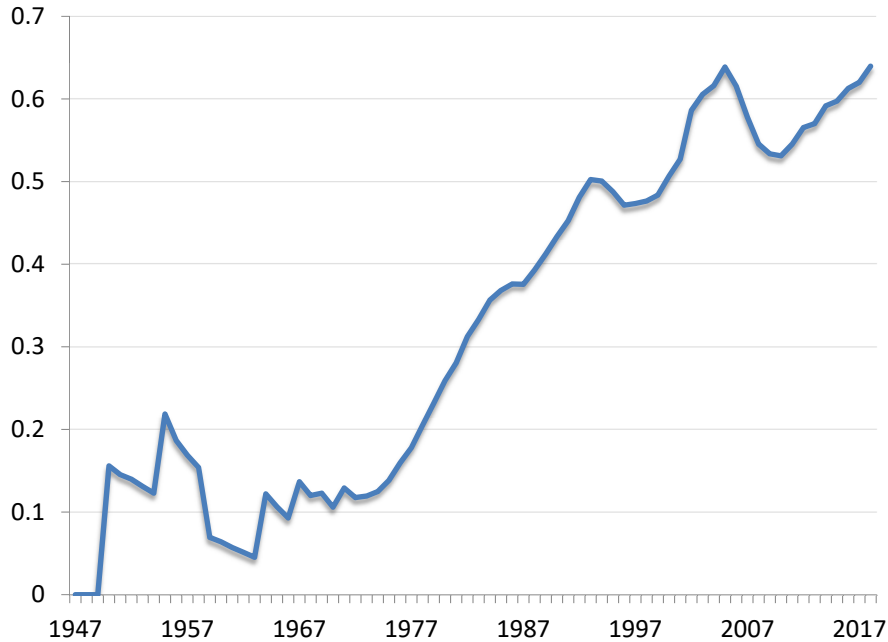


Figure 1: IP intensity of New Industrial Revolution Industries as a Ratio to Other Industries

Franchise contracting is a powerful tool for accomplishing the revolution. The US Economic Census began gathering data on franchise status by establishment in 2007 and continued in 2012 and 2017. So far, only the 2012 survey has been published. The results are sharp: only 3 percent of sales economy-wide arise in franchised establishments, but 26 percent arise in franchised establishments in the NIR sectors.

In 5 NAICS 6-digit industries, more than half of total sales occurred in franchised establishments:

- New car dealers
- Limited-service restaurants (fast food)
- Private mail centers
- Diet and weight reducing centers
- Optical goods stores

All of these are in the NIR sector.

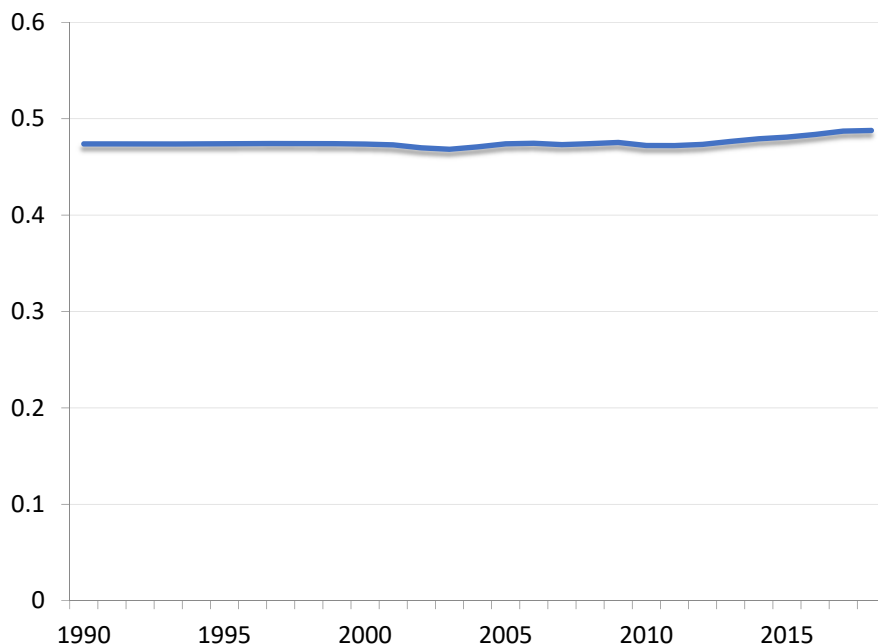


Figure 2: Ratio of fast-food employment to total restaurant employment

I thought that fast food might be more affected by the revolution, but the employment fraction of fast-food among all restaurants is remarkably stable—see Figure 2.

So, the hypothesis that sectors benefiting differentially from NIR should grow faster is sustained in the case of restaurants (a leading NIR sector, it appears). The growth of out-of-the-household food preparation and consumption relative to in-household has been noted in the context of the modeling of household production, but the paper offers a new explanation—the rising efficiency of restaurants.

To conclude, the team producing the papers I have discussed has made major contributions to understanding the interactions of market power, concentration, and product characteristics. There a lot more to do, including more intensive study of individual industries.

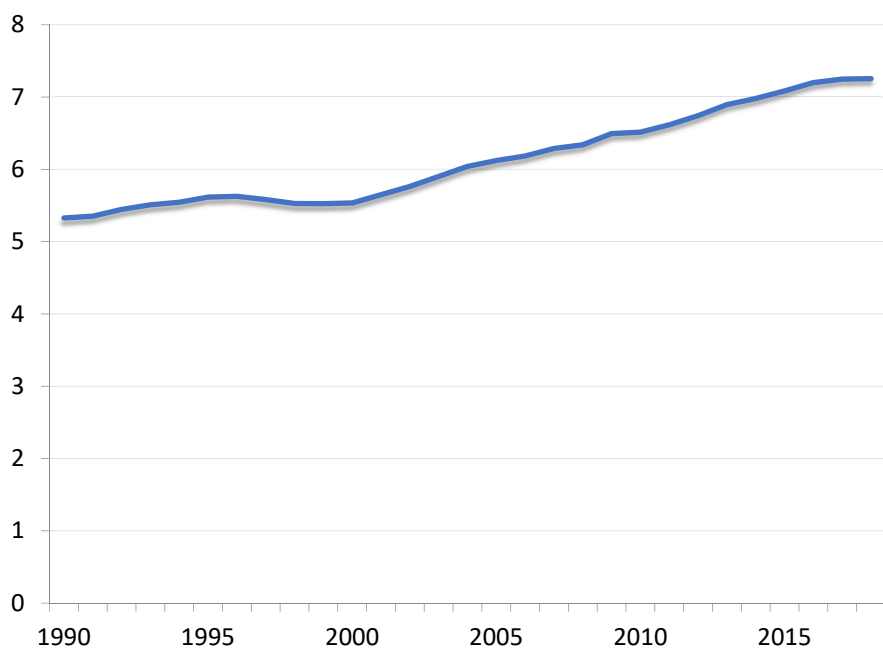


Figure 3: Restaurant employment has risen substantially as a fraction of total non-farm employment