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Antitrust in a time of populism[☆]

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ABSTRACT

This article discusses how to move antitrust enforcement forward in a constructive manner during a time of widespread and growing concern over the political and economic power of large corporations in the United States. Three themes are emphasized. First, a body of economic evidence supports more vigorous merger enforcement in the United States. Tighter merger control can be achieved by utilizing the existing legal presumption against highly concentrating mergers. Second, close antitrust scrutiny is appropriate for today's largest and most powerful firms, including those in the tech sector. Proper antitrust enforcement regarding unilateral conduct by dominant firms should continue to focus on identifying specific conduct that harms customers or disrupts the competitive process. Third, while antitrust enforcement has a vital role to play in keeping markets competitive, antitrust law and antitrust institutions are ill suited to directly address concerns associated with the political power of large corporations or other public policy goals such as income inequality or job creation.

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1. Introduction

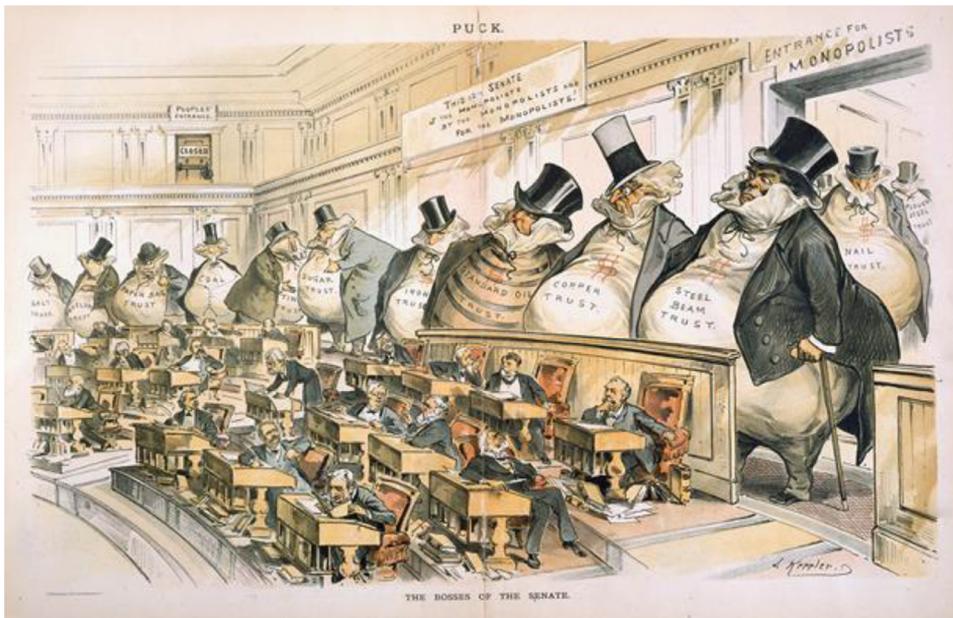
Antitrust is sexy again. Where does this take us?

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American politicians are calling on antitrust to solve an array of problems associated with the excessive power of large corporations in the United States. As a recent leading example, in July 2017 Congressional Democrats unveiled “A Better Deal: Cracking Down on Corporate Monopolies and the Abuse of Economic and Political Power.”¹ Their plan calls for much tougher merger enforcement and greater government oversight “to stop abusive conduct and the exploitation of market power where it already exists.”

Not since 1912, when Teddy Roosevelt ran for President emphasizing the need to control corporate power, have antitrust issues had such political salience.² While Roosevelt did not win, Congress passed the Federal Trade Commission Act and the Clayton Act in 1914, significantly strengthening the Sherman Act. Indeed, the Sherman Act itself was passed in 1890 in response to broad concerns about the political and economic power of large corporations in America, as illustrated in this 1889 political cartoon, “The Bosses of the Senate.”



“The Bosses of the Senate,” Puck, 23 January 1889

¹ See <https://democrats.senate.gov/wp-content/uploads/2017/07/A-Better-Deal-on-Competition-and-Costs-1.pdf>.

² Roosevelt’s views are expressed in his famous 1910 “New Nationalism” speech, delivered in Osawatimie, Kansas; see <http://teachingamericanhistory.org/library/document/new-nationalism-speech/>. This passage is especially relevant today: “Combinations in industry are the result of an imperative economic law which cannot be repealed by political legislation. The effort at prohibiting all combination has substantially failed. The way out lies, not in attempting to prevent such combinations, but in completely controlling them in the interest of the public welfare”.

Today's concerns about corporate power, and today's renewed interest in antitrust, represent an opportunity to strengthen competition policy in the United States. This opportunity extends to all three branches of government: the Department of Justice and the Federal Trade Commission can take a tougher line enforcing the antitrust laws, the courts can interpret the very broad antitrust statutes in ways that support more vigorous antitrust enforcement, and Congress could strengthen the antitrust laws. The central purpose of this article is to assess the relevant economic evidence regarding competition in the U.S. economy and then, based on that evidence and on antitrust learning and experience, identify ways to improve and strengthen antitrust.

In [Section 2](#), I document that we truly are at a moment when there is widespread and growing concern among politicians and journalists that the American economy has become significantly less competitive over the past several decades. In [Section 3](#), I then look more deeply at the economic evidence relating to trends in competition in the U.S. economy. I focus on evidence about economic concentration and corporate profits and what it implies about competition. In [Section 4](#), I then discuss competition policy responses to the rising economic concentration and unprecedented corporate profits that we are observing. [Section 5](#) concludes.

Before turning to those topics, I would like to emphasize that the role of antitrust in promoting competition could well be *undermined* if antitrust is called upon or expected to address problems not directly relating to competition. Most notably, antitrust institutions are poorly suited to address problems associated with the excessive political power of large corporations. The courts and the antitrust enforcement agencies know how to assess economic power and the economic effects of mergers or challenged business practices, but there are no reliable methods by which they could assess the *political* power of large firms. Asking the DOJ, the FTC to evaluate mergers and business conduct based on the political power of the firms involved would invite corruption by allowing the executive branch to punish its enemies and reward its allies through the antitrust cases brought, or not brought, by antitrust enforcers. On top of that, asking the courts to approve or block mergers based on the political power of the merging firms would undermine the rule of law while inevitably drawing the judicial branch into deeply political considerations. Let me be clear: the corrupting power of money in politics in the United States is perhaps the gravest threat facing democracy in America.³ But this profound threat to democracy and to equality of opportunity is far better addressed through campaign finance reform, increased transparency, and anti-corruption rules than by antitrust.

³ Much of the problem seems to arise from an overly narrow definition of "corruption" adopted in recent years by the Supreme Court. See Zephyr [Teachout](#) (2014). The inability of Congress to police itself is also a major reason why large companies have so much political power. Of course, economists and political scientists have long recognized the dangers associated with regulatory capture, and legislators are hardly immune to this disease.

Antitrust also is poorly suited to address issues of income inequality. Many other public policies are far superior for this purpose. Tax policy, government programs such as Medicaid, disability insurance, and Social Security, and a whole range of policies relating to education and training spring immediately to mind. So, while stronger antitrust enforcement will modestly help address income inequality, explicitly bringing income distribution into antitrust analysis would be unwise. Baker and Salop (2015) identify a number of ways in which antitrust could help address inequality while staying true to its mission of promoting competition.

2. The new conventional wisdom: competition in America has declined

Until quite recently, few were claiming that there has been a substantial and widespread decline in competition in the United States since 1980. And even fewer were suggesting that such a decline in competition was a major cause of the increased inequality in the United States in recent decades, or the decline in productivity growth observed over the past 20 years.

Yet, somehow, over the past two years, the notion that there has been a substantial and widespread decline in competition throughout the American economy has taken root in the popular press. In some circles, this is now the conventional wisdom, the starting point for policy analysis rather than a bold hypothesis that needs to be tested.

Since 2015, there has been a regular drumbeat in the press reporting on a supposed decline of competition in the United States. In October 2015, the *Wall Street Journal*, hardly an anti-business publication, wrote: “A growing number of industries in the U.S. are dominated by a shrinking number of companies”.⁴ Later that month, the *New York Times* stated: “Markets work best when there is healthy competition among businesses. In too many industries, that competition just doesn’t exist anymore.”⁵ Eduardo Porter of the *New York Times* later connected increasing inequality with a decline of competition, under the title: “With Competition in Tatters, the Rip of Inequality Widens”.⁶

The *Economist*, a highly respected publication regarding economic policy, has been especially sharp and persistent in asserting that there has been a substantial decline in competition in recent years. In March 2016, the *Economist* published a lengthy report stating: “Profits are too high. America needs a giant dose of competition”⁷. In September

⁴ Theo Francis and Ryan Knutson, “Wave of Megadeal Tests Antitrust Limits in U.S.”, *Wall Street Journal*, 18 October 2015, available at <https://www.wsj.com/articles/wave-of-megadeals-tests-antitrust-limits-in-u-s-1445213306>.

⁵ “How Mergers Damage the Economy”, The Editorial Board, *New York Times*, 1 November 2015, available at https://www.nytimes.com/2015/11/01/opinion/sunday/how-mergers-damage-the-economy.html?_r=0.

⁶ *New York Times*, 12 July 2016, available at <https://www.nytimes.com/2016/07/13/business/economy/antitrust-competition-inequality.html>.

⁷ *Economist*, 26 March 2016, “Too Much of a Good Thing”, available at <https://www.economist.com/news/briefing/21695385-profits-are-too-high-america-needs-giant-dose-competition-too-much-good-thing>.

2016, the *Economist* special report, “The Rise of the Superstars”, highlighted the dangers to competition posed by today’s largest and most successful tech companies.⁸ The magazine’s summary of this report was entitled: “The Superstar Company: A Giant Problem”, along with the subtitle: “The rise of the corporate colossus threatens both competition and the legitimacy of business”.⁹ That summary concluded: “The world needs a healthy dose of competition to keep today’s giants on their toes and to give those in their shadow a chance to grow”. The *Economist* has also expressed grave concerns over passive investment funds, such as index funds, that take large ownership stakes in multiple firms in the same industry. The *Economist* fears that these investments dull competition, calling them a form of “stealth socialism”, asserting that “passive investment funds create headaches for antitrust authorities, and even describing such investments as “a contradiction at the heart of financial capitalism”.¹⁰

The drumbeat continues. *Business Week* recently reported: “Market concentration in the U.S. has reached a three-decade high, while the government has opened fewer antitrust cases”.¹¹

The view that competition has declined in the American economy during recent decades is not confined to the popular press. President Obama’s Council of Economic Advisers added some high-octane fuel to the fire in May 2016 with its release of an issues brief entitled “Benefits of Competition and Indicators of Market Power”. In typical Obama-CEA style, this report was carefully worded with numerous caveats, and it properly cited empirical evidence and the academic economics literature. But overall the CEA report was generally interpreted as embracing the view that the American economy has experienced a decline in competition over the past several decades. After all, the lead paragraph states: “Several indicators suggest that competition may be decreasing in many economic sectors, including the decades-long decline in new business formation and increases in industry-specific measures of concentration”. I discuss the findings of this report below.

A number of progressive think tanks and advocates have issued reports over the past two years documenting the decline in competition in the American economy, linking that decline to increasing inequality, and offering policy proposals to reinvigorate competition policy. The [American Antitrust Institute \(2016\)](#), a respected organization long committed to more effective antitrust enforcement, published a report in June 2016 entitled “A National Competition Policy: Unpacking the Problem of Declining Competition and

⁸ *Economist*, 17 September 2016, available at <https://www.economist.com/news/special-report/21707048-small-group-giant-companiessome-old-some-neware-once-again-dominating-global>.

⁹ *Economist*, 17 September 2016, available at <https://www.economist.com/news/leaders/21707210-rise-corporate-colossus-threatens-both-competition-and-legitimacy-business>.

¹⁰ “Stealth Socialism”, *Economist*, 17 September 2016, available at <https://www.economist.com/news/finance-and-economics/21707191-passive-investment-funds-create-headaches-antitrust-authorities-stealth>.

¹¹ “Here’s How They Play Monopoly in America, and Who Wins”, *Business Week*, 5 April 2017, available at <https://www.bloomberg.com/news/articles/2017-04-05/here-s-how-they-play-monopoly-in-america-and-who-wins>.

Setting Priorities Moving Forward”. This report lists three main symptoms of declining competition: rising concentration, higher profits to a few big firms combined with slowing rates of start-up activity, and widening inequality gaps. The report rather boldly claims (p.7): “There is a growing consensus that inadequate antitrust policy has contributed to the concentration problem and associated inequality effects”.

That same month, the [Center for American Progress \(2016\)](#) issued a report entitled “Reviving Antitrust: Why Our Economy Needs a Progressive Competition Policy”. The introduction and summary to this report states: “there is systematic evidence – ranging from the disconnect of corporate profits and corporate investment to evidence of persistent supra-normal profitability – that points to an increase in rent extraction in the U.S. economy”. These ills are then linked to inadequate antitrust enforcement over the past few decades.

Also in June 2016, the [Roosevelt Institute \(2016\)](#) issued a report, “Untamed: How to Check Corporate, Financial and Monopoly Power”. The first chapter in this report, “Restoring Competition in the U.S. Economy”, opens this way: “Increasing market concentration across the American economy has been a driver of declining economic opportunity and widening inequality in recent decades. In industries ranging from hospitals and airlines to agriculture and cable, markets are now more concentrated and less competitive than at any point since the Gilded Age”.¹² In March 2017, the [Roosevelt Institute \(2016\)](#) released a paper, “Toward a Broader View of Competition Policy”, by none other than Nobel Laureate Joseph Stiglitz. In the abstract, [Stiglitz \(2017\)](#) highlights “the increase in market power across many important sectors of the U.S. economy and persistent higher rates of return to capital than seem consistent with competition”. He adds: “These monopoly rents, may, in turn, play an important role in the country’s growing inequality”.

The Washington Center for Equitable Growth joined the chorus, releasing a paper in March 2017 by antitrust expert Jonathan Baker, “Market Power in the U.S. Economy Today”. [Baker \(2017\)](#) opens his paper with this paragraph: “The U.S. economy has a ‘market power’ problem, notwithstanding our strong and extensive antitrust institutions. The surprising conjunction of the exercise of market power with well-established antitrust norms, precedents, and enforcement institutions is the central paradox of U.S. competition policy today”. In February 2017, Barry Lynn, then the director of the Open Markets program at New America, went so far as to state: “The idea that America has a monopoly problem is now beyond dispute”.¹³

Progressive politicians have also been expressing concerns about declining competition and growing corporate power. Early in the presidential campaign, in October 2015,

¹² See p. 18, with a footnote citing the 26 March 2016 *Economist* article, “Too Much of a Good Thing”, noted above. The authors of this chapter are K. Sabeel Rahman and Lina Khan.

¹³ Barry Lynn, “America’s Monopolies are Holding Back the Economy”, *The Atlantic*, 22 February 2017, available at <https://www.theatlantic.com/business/archive/2017/02/antimonopoly-big-business/514358/>.

Hillary Clinton stated: “Economists, including President Obama’s Council of Economic Advisers, have put their finger on what’s going on: large firms are concentrating their control over markets”.¹⁴ Later in the campaign, her campaign web site promised: “A new commitment to promote competition, address excessive concentration and the abuse of economic power, and strengthen antitrust laws and enforcement”.¹⁵ The 2016 Democratic Party Platform contained a section entitled “Promoting Competition by Stopping Corporate Concentration”, which stated: “Large corporations have concentrated their control over markets to a greater degree than Americans have seen in decades – further evidence that the deck is stacked for those at the top”.¹⁶

Senator Elizabeth Warren has been especially vocal about the decline of competition in America and the need for stronger policies to reign in corporate power. She gave a detailed speech on this topic in June 2016 at New America’s Open Markets Program, in which she stated: “Today in America competition is dying. Consolidation and concentration are on the rise in sector after sector. Concentration threatens our markets, threatens our economy, and threatens our democracy”.¹⁷ The need to control corporate power is an ongoing theme for Senator Warren. In May 2017 she stated: “It’s time for us to do what Teddy Roosevelt did – and pick up the antitrust stick again. Sure, that stick has collected some dust, but the laws are still on the books”.

In July 2017, the Democratic party gave considerable prominence to antitrust issues in the “Better Deal” it put forward to attract voters.¹⁸ Their “Better Deal” plan has three prongs: (1) “new standards to limit large mergers that unfairly consolidate corporate power”, (2) “tough post-merger review”, and (3) “a new consumer competitive advocate”.¹⁹ In September 2017, Senator Klobuchar introduced the “Consolidation Prevention and Competition Promotion Act of 2017”, which would greatly strengthen the ability of the antitrust agencies to block horizontal mergers and to evaluate the effects of mergers that are consummated.²⁰

Perhaps these sentiments are unsurprising, coming from progressive think tanks and politicians during a time of populism. But they are not just coming from that quarter. Concerns about corporate concentration and corporate power are bipartisan, in rhetoric if not in action. During the presidential campaign, candidate Donald Trump stated:

¹⁴ Hillary Clinton, “Being Pro-Business Doesn’t Mean Hanging Consumers Out to Dry”, Quartz, 20 October 2015, available at <https://qz.com/529303/hillary-clinton-being-pro-business-doesnt-mean-hanging-consumers-out-to-dry/>.

¹⁵ <https://www.hillaryclinton.com/briefing/factsheets/2016/10/03/hillary-clintons-vision-for-an-economy-where-our-businesses-our-workers-and-our-consumers-grow-and-prosper-together/>

¹⁶ See <https://www.democrats.org/party-platform>, p. 12.

¹⁷ Senator Elizabeth Warren, “Reigniting Competition in the American Economy”, 29 June 2016, available at https://www.warren.senate.gov/files/documents/2016-6-29_Warren_Antitrust_Speech.pdf.

¹⁸ “Congressional Democrats Promise a ‘Better Deal’ for American Workers”, *New York Times*, 24 July 2017, available at <https://www.nytimes.com/2017/07/24/us/politics/congressional-democrats-promise-a-better-deal-for-american-workers.html>.

¹⁹ See https://graphics.axios.com/pdf/better-deal-competition-and-cost.pdf?utm_source=newsletter&utm_medium=email&utm_campaign=newsletter_axiosam&stream=top-stories.

²⁰ See <https://www.klobuchar.senate.gov/public/index.cfm/news-releases?ID=FB9C644A-2F7B-4FB1-9003-0E0C667E1027>.

“It’s not just the political system that’s rigged, it’s the whole economy”.²¹ He vowed to stop AT&T from acquiring Time Warner, calling their merger “an example of the power structure I’m fighting”.²² After the election, Vice-President Elect Pence stated: “The free market has been sorting it out and America’s been losing”, at which point President-Elect Trump chimed in: “Every time, every time”.²³

All of this chatter has even reached the ivory tower. The shifting terms of the debate were impossible to miss at the University of Chicago conference in March 2017, “Is There a Concentration Problem in America”.²⁴ Notably, this conference took place at the home of the Chicago School, which is associated with Milton Friedman and George Stigler. The Chicago School ushered in a far more circumscribed approach to antitrust enforcement around 1980.²⁵ Yet one speaker after another at this conference argued that antitrust enforcement needs to be strengthened. The title of the article in the *Economist* reporting on this conference says it all: “The University of Chicago worries about a lack of competition. Its economists used to champion big firms, but the mood has shifted”.²⁶

3. Taking a closer look at the evidence

In this section, I step back and ask what the empirical evidence actually shows about trends in competition in the United States over the past 30 to 40 years. I consider this an essential predicate to discussion of the various proposals to strengthen U.S. competition policy.

3.1. Trends in market concentration

The starting point for most assertions that there has been a significant and widespread decline in competition in the United States in recent decades is the claim that U.S. markets have systematically become far more *concentrated*. Purely as a factual matter, is this actually true?

²¹ <http://www.politico.com/story/2016/06/transcript-trump-speech-on-the-stakes-of-the-election-224654>.

²² See https://www.washingtonpost.com/news/the-switch/wp/2016/11/11/trump-may-have-a-harder-time-blocking-the-massive-att-time-warner-merger-than-he-thought/?utm_term=.44921a16844e.

²³ <https://www.nytimes.com/2016/12/01/business/economy/trump-carrier-pence-jobs.html>.

²⁴ <https://research.chicagobooth.edu/stigler/events/single-events/march-27-2017>. This conference was sponsored by the Stigler Center for the Study of the Economy and the State and was organized by Luigi Zingales and Guy Rolnik.

²⁵ Many date the shift to the publication of Robert Bork’s book, *The Antitrust Paradox* in 1978. The election of President Reagan and the new antitrust enforcement policies put in place by Assistant Attorney General William Baxter were critical for implementing the ideas in Bork’s book.

²⁶ 12 April 2017, available at <https://www.economist.com/news/business/21720657-its-economists-used-champion-big-firms-mood-has-shifted-university-chicago>.

Before I turn to the data, I would like to state clearly and categorically that I am looking here for *systematic and widespread* evidence of significant increases in concentration in well-defined markets in the United States. Nothing in this section should be taken as questioning or contradicting separate claims regarding changes in concentration in specific markets or sectors, including some markets for airline service, financial services, health care, telecommunications, and information technology. In a number of these sectors, we have far more detailed evidence of increases in concentration and/or declines in competition. In my view, no high-level look at the American economy can substitute for detailed studies of specific markets when it comes to assessing market power. Nonetheless, understanding broad trends is certainly valuable, and, as illustrated above, many are claiming that there has been a systematic and widespread decline in competition in America. Here, I am evaluating those claims, not assessing concentration or competition in specific markets or sectors.

Industrial organization economists have understood for at least 50 years that it is extremely difficult to measure market concentration across the entire economy in a systematic manner that is both consistent and meaningful. Going back to the 1950s, economists seeking to understand the relationship between concentration and profits struggled long and hard with these difficulties, in the end with only limited success. [Schmalensee \(1989\)](#) and [Salinger \(1990\)](#) review this literature. One unavoidable and persistent problem is conceptual: defining relevant markets in which to measure market shares is known to be difficult in individual antitrust cases, and is well-nigh impossible to do consistently on an economy-wide basis. The second problem is very practical and can change over time: what data on sales, prices and costs are actually available on a systematic basis, and how good are those data?

So far as I can tell, recent assertions regarding economy-wide trends market concentration in the American economy have largely ducked both of these problems. This does not mean that the reported results are meaningless, but certainly one should understand the underlying data and their limitations when interpreting those results. That is my limited goal here.

3.1.1. Measuring changes in concentration over time

Let me start with the April 2016 report by the Council of Economic Advisers cited above. Below, I reproduce [Table 1](#) from that report. The CEA states flatly: “[Table 1](#) shows that the majority of industries have seen increases in the revenue share enjoyed by the 50 largest firms between 1997 and 2012”. Fair enough – but what are we to make of this fact?

I do not consider the CEA [Table 1](#) to be informative regarding overall trends in concentration in well-defined relevant markets that are used by antitrust economists to assess market power, much less trends in competition in the U.S. economy. My objections to the CEA [Table 1](#) are fundamental: (a) the fifty-firm concentration ratio (CR_{50}) reported

Table 1
Change in market concentration by sector, 1997–2012.

Industry	Revenue earned by 50 largest firms, 2012 (Billion \$)	Revenue share earned by 50 largest firms, 2012	Percentage point change in revenue share earned by 50 largest firms, 1997–2012
Transportation and warehousing	307.9	42.1	11.4
Retail trade	1555.8	36.9	11.2
Finance and insurance	1762.7	48.5	9.9
Wholesale trade	2183.1	27.6	7.3
Real estate rental and leasing	121.6	24.9	5.4
Utilities	367.7	69.1	4.6
Educational services	12.1	22.7	3.1
Professional, scientific and technical services	278.2	18.8	2.6
Administrative/Support	159.2	23.7	1.6
Accommodation and food services	149.8	21.2	0.1
Other services, non-public admin	46.7	10.9	−1.9
Arts, entertainment and recreation	39.5	19.6	−2.2
Health care and assistance	350.2	17.2	−1.6

Source: Economic Census (1997 and 2012), Census Bureau.

Note: Concentration ratio data is displayed for all North American Industry Classification System (NAICS) sectors for which data is available from 1997 to 2012.

in [Table 1](#) is not informative regarding the state of competition. Industrial organization economists generally believe that markets are normally quite competitive with far fewer than fifty firms, so we measure concentration using the Herfindahl Index (HHI) or perhaps the four-firm concentration ratio (CR_4); (b) the two-digit industry groupings in [Table 1](#) are *far too broad* to assess market power, so the trends observed may well reflect nothing more than the expansion of successful, efficient firms into related lines of business, to the benefit of consumers; (c) the revenue shares reported in the CEA [Table 1](#) are calculated on a *national* basis, yet many of the relevant markets are regional or local, so the trends observed may well reflect nothing more than the expansion by successful, efficient firms into new geographic regions, to the benefit of consumers; and (d) shares measured based on overly broad categories are likely to mask some genuinely worrisome increases in concentration in narrower and more meaningful product or geographic markets.

As an illustration of the basic measurement issue, consider what happens to concentration measured at the national level if we begin with a situation in which each of many

local markets has five stores, all locally owned with no cross-ownership across geographies. Then suppose that four national chains arise, and each local market shifts to having a store from each of these four national chains plus one locally-owned store. This shift causes no change at all in concentration at the local level, i.e., in the properly defined relevant markets. Each local HHI is 2000 before and after the rise of the national chains (five stores, each with 20%). Nationally, however, the HHI starts near zero and grows to 1600 (four chains each with 20% nationally). This shift could well go along with lower prices and better service for customers.²⁷

The CEA was no doubt well aware of these problems with its [Table 1](#) when it issued its report. The CEA was careful to qualify its own [Table 1](#), stating: “The statistics presented in [Table 1](#) are national statistics across broad aggregates of industries, and an increase in revenue concentration at the national level is neither a necessary nor sufficient condition to indicate an increase in market power. Instead, antitrust authorities direct their attention to concentration at the relevant market level for each product or service. Those data are not readily available across the economy”.²⁸ Unfortunately, many of those citing the CEA Report as not nearly so careful.

In the end, the CEA [Table 1](#) reflects the growing role of large firms in the American economy, but it tells us little or nothing about trends in concentration in properly-defined relevant markets, and thus it tells us little or nothing about trends in market power. Sheer size and market power are just not the same thing. Sheer size would appear to matter much more for *political* power than for economic power. As noted above, my focus here is on economic power.

Another widely cited source for the proposition that U.S. markets have become systematically more concentrated in recent decades is the *Economist*. In March 2016 the *Economist* published a very useful chart, “A Widespread Effect”, showing the four-firm concentration ratio in some 893 “individual industries”, in the United States in 1997 and 2012.²⁹ I reproduce this chart below.

²⁷ Indeed, small local firms often state that they find it very difficult to compete against large national chains, in large part because the chains have lower costs and thus can charge lower prices. If the competitive process is working properly, and if consumers prefer to shop from locally-owned stores, those preferences would give local stores one competitive advantage over national chains that would to some degree offset their lower costs. Related, antitrust should generally not stand in the way of groups of local stores from different areas working together to obtain the benefits of volume purchasing as a means to compete more effectively with the national chains.

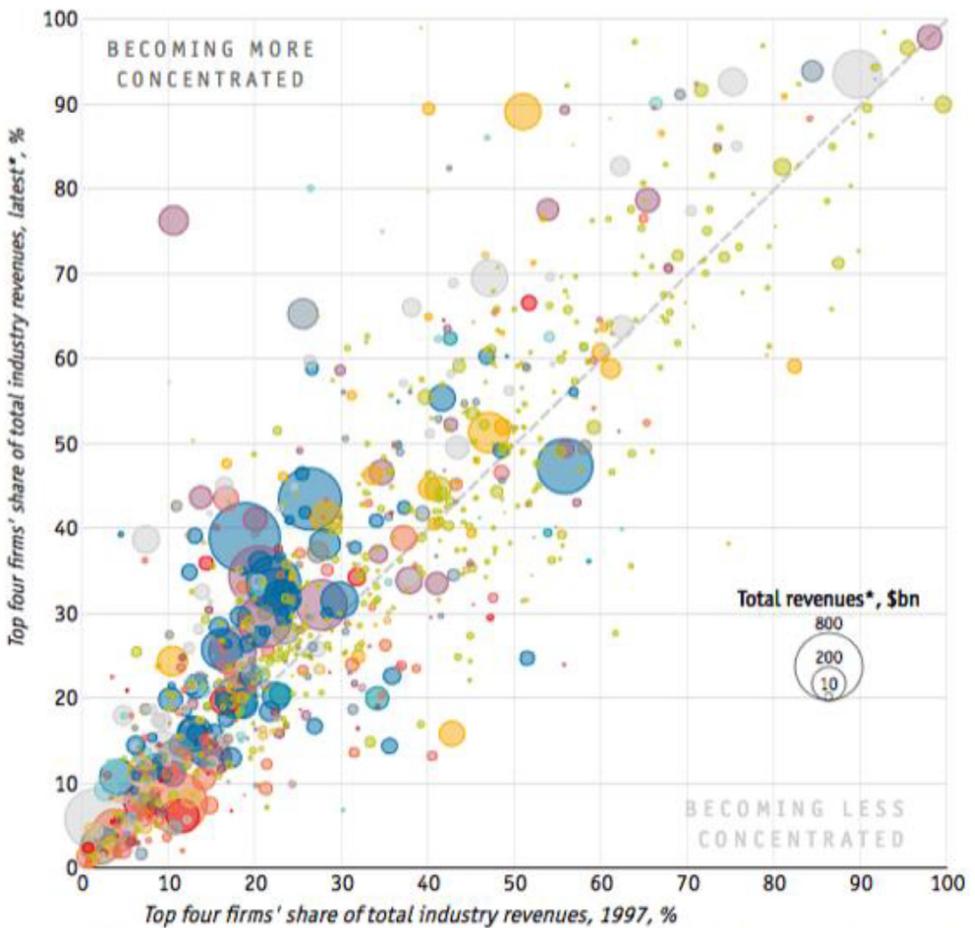
²⁸ Recognizing the limitations of its own [Table 1](#), the CEA cites a number of studies showing rising concentration in specific industries, including bank loans and deposits (1980 to 2010), several agricultural industries (1972 to 2002), hospital markets (early 1990s to 2006), wireless providers (2004 to 2014), and railroad markets. As noted above, I steer clear here of studies of specific industries and focus on systematic evidence across the U.S. economy.

²⁹ See “Corporation Concentration: The Creep of Consolidation Across America’s Corporate Landscape”, available at <https://www.economist.com/blogs/graphicdetail/2016/03/daily-chart-13>, 24 March 2016. This web site is a very handy interactive tool which readers are encouraged to visit and explore.

A widespread effect

Top four firms' share of total industry revenue, %
893 industries, grouped by sector, United States

- Accommodation & food
- Finance
- Other
- Transport & warehousing
- Administration
- Health care
- Professional services
- Utilities
- Arts & entertainment
- IT
- Property
- Wholesale
- Education
- Manufacturing
- Retail



Sources: US Census Bureau; *The Economist*

*Latest available, 2007 or 2012

This chart is based on data from the Economic Census. So far as I can tell, each of the 893 “industries” in the chart corresponds to a four-digit industry under the NAICS classification system used by the Census Bureau. Industries in which the four-firm concentration ratio increased from 1997 to 2007 (or 2012) appear above the 45-degree line. The size of the circle is proportional to revenues in the industry, and the color (or shade) denotes the sector of the economy in which that industry belongs.

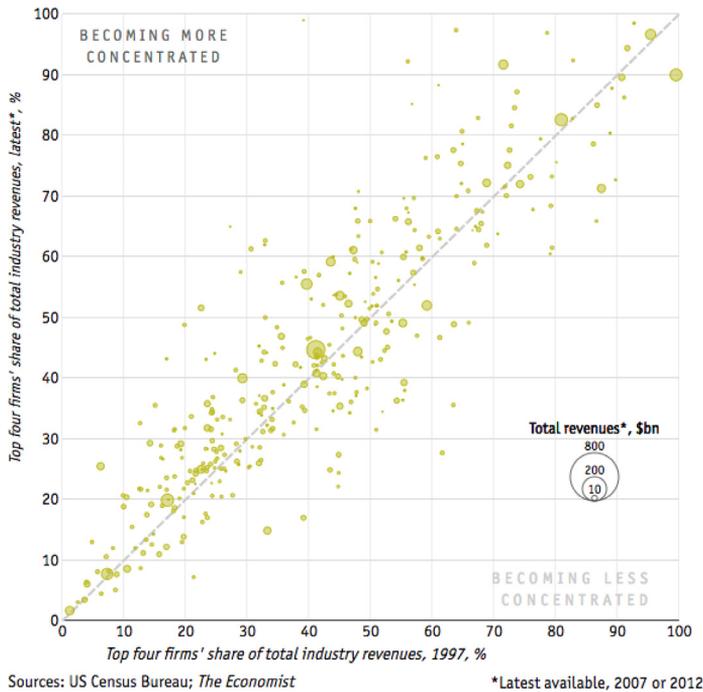
These 893 “industries” are far closer to relevant antitrust product markets than are the two-digit sectors used by the CEA. But still not all that close. Here are a few example of the larger “industries” appearing in the *Economist* chart, with their corresponding revenues and the change in CR4 from 1997 to 2012:

- full-service restaurants (\$224 billion, CR4 up from 8% to 9%);
- direct health and medical insurance carriers (\$647 billion, CR4 up from 20% to 34%)
- general medical and surgical hospitals (\$657 billion, CR4 down from 11% to 8%)
- scheduled passenger air service (\$157 billion, CR4 up from 25% to 65%)
- supermarket and other grocery stores (\$537 billion, CR4 up from 21% to 31%)
- wired telecommunications carriers (\$286 billion, CR4 up from 47% to 51%)

These examples illustrate a major problem with any claim based on these data that concentration has systematically risen in well-defined relevant markets, much less than there has been a decline in competition in these markets: the *geographic* markets for many of these services, including those for full-service restaurants, supermarkets, wired telecommunications services, and hospitals, are *local*, while the measurement exercise is being done at the *national* level.

So, while these data do reflect the fact that large, national firms have captured an increasing share of overall revenue during the past 20 years in many of these 893 “industries”, they do not, in and of themselves, indicate that the relevant *local* markets have become more concentrated. This point is quite important in many of the markets in most of the major sectors reported by the *Economist*: Accommodations and Food, Finance, Health Care, IT, Professional Services, Property, Retail, Transport & Warehousing, Utilities, and Wholesale. The general shift from local firms to national firms is not a cause for concern from the perspective of competition policy if this shift is the result of these national firms providing greater value to consumers. Of course, this shift is a cause for concern if one believes for other reasons that it is important to protect small businesses and entrepreneurs from competition by larger firms.

A distinct problem arises in the manufacturing sector. The following chart illustrates the data from the *Economist* confined to manufacturing:



The *Economist* reports a small increase from 1997 to 2012 in the weighted-average CR4 across these manufacturing “industries”, from about 41% to about 43%, in these Economic Census data. Moreover, it is important to understand, when interpreting this increase in concentration, that the Economic Census data only report production at *domestic* establishments. These data do not include imports of manufactured products, which have grown dramatically over the past 20 years.

Peltzman (2014) looks more deeply at trends in concentration in the manufacturing sector over a longer period of time, 1963 to 2007. He finds no overall increase in concentration from 1963 to 1982, but an increase in concentration following the relaxation of merger enforcement in 1982. He reports that the median HHI in 1982 in the manufacturing industries reported by the Economic Census was 565, and that the median HHI in 2002 for industries with the same definition in both years rose by 97 points, to 662. He finds higher HHI levels and increases for consumer goods than for producer goods.³⁰ Peltzman does not assert that these increases in concentration reflect a decline in manufacturing competition, recognizing that moderate increases in concentration can easily go hand in hand with greater competition due to the presence of economies of scale and efficiency differences across firms.

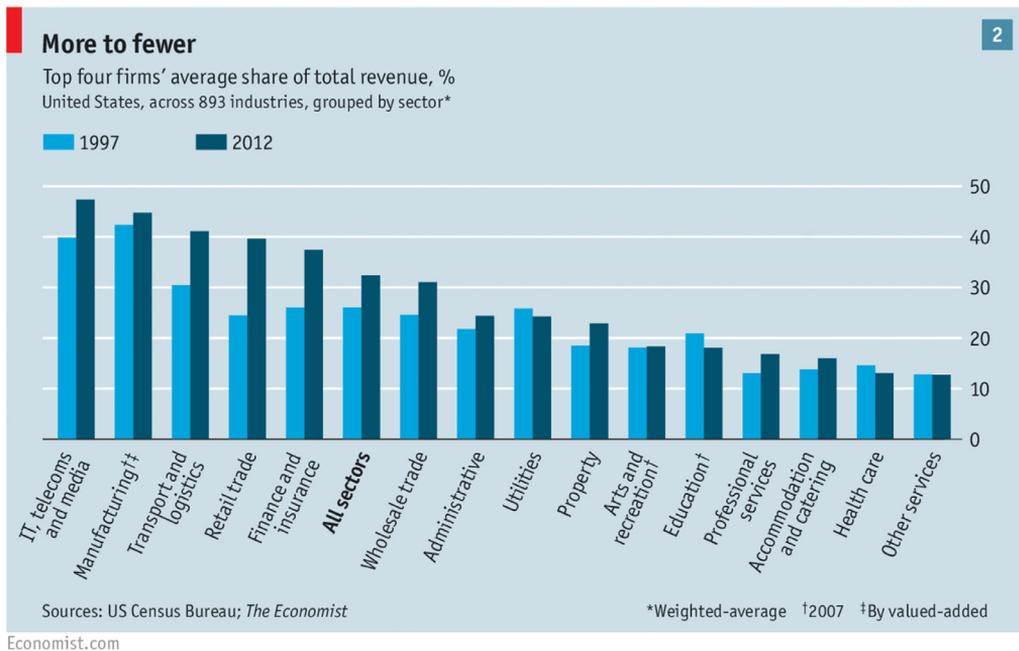
So far as I can determine, all of the various press reports and policy papers raising the alarm about increasing concentration in the U.S. economy ultimately rely on data from the Economic Census. These data convince me that larger firms have systematically

³⁰ See Tables 6 and 7, respectively.

gained business relative to smaller ones, and they no doubt reflect worrisome increases in concentration in *some* narrower markets. But, simply as a matter of measurement, the Economic Census data that are being used to measure trends in concentration do not allow one to measure concentration in relevant antitrust markets, i.e., for the products and locations over which competition actually occurs. As a result, it is far from clear that the reported changes in concentration over time are informative regarding changes in competition over time.

3.1.2. The magnitude of the reported increases in concentration

Let us now set aside these measurement issues and focus on the *magnitude* of the reported increases in concentration. In summarizing the data discussed above covering the 893 four-digit industries, the *Economist* reported, for each broad sector in the economy, the weighted-average increase in the four-firm concentration ratio from 1997 to 2012 as measured across the various “industries” in that sector.³¹ The following chart shows their results.³²



³¹ The weights are based on revenue, except for manufacturing, where the weights are based on value-added.

³² See <https://www.economist.com/news/briefing/21695385-profits-are-too-high-america-needs-giant-dose-competition-too-much-good-thing>.

The *Economist* summarized their findings, stating: “The weighted average share of the top four firms in each sector has risen from 26% to 32%”. See the “All Sectors” bar in the chart.³³

What does the structure of a market with a CR_4 of 32% look like? As an illustration, think about a market with a CR_4 of 32% in which the top four firms have shares of 10%, 8%, 8% and 6%. There must be at least 11 more firms, since the largest any of these other firms can be is 6%, and they comprise 68% of the market. The HHI is this market is between 300 and 700. Industrial organization economists would generally describe this market as being unconcentrated. Since 1982, the Horizontal Merger Guidelines have considered markets with HHIs of less than 1000 to be unconcentrated.

Autor et al. (2017) report similar findings to those in the *Economist*. They too rely on data from the Economic Census, looking at the changes in CR_4 and CR_{20} from 1982 to 2012 at the four-digit industry level, based on sales and based on employment. They then take averages across six broad sectors: manufacturing, retail trade, wholesale trade, services, finance, and utilities and transportation. Below I reproduce their charts illustrating their basic findings regarding concentration in these six sectors:

Autor et al. (2017a) summarize their findings (p. 183) this way:

There is a remarkably consistent upward trend in concentration in each sector. In manufacturing, the sales concentration ratio among the top four increases from 38 percent to 43 percent; in finance, it rises from 24 percent to 35 percent; in services from 11 percent to 15 percent; in utilities from 29 percent to 37 percent; in retail trade from 15 percent to 30 percent; and in wholesale trade from 22 percent to 28 percent.

Autor et al. (2017b) use these same data to report average changes in the HHI by sector from 1982 to 2012. They find an average increase in the HHI in manufacturing from 800 to 875, in finance from 300 to 700, in services from 950 to 1375, in utilities and transportation from 525 to 725, in retail trade from 125 to 625, and in wholesale trade from 325 to 350.

For better or worse, I very much doubt that many antitrust economists would be concerned to learn that a market had experienced these types of increases in the CR_4 or the HHI. Currently, the Horizontal Merger Guidelines consider a market to be unconcentrated if the HHI is below 1500; prior to 2010, the threshold was 1000. The threshold was raised in 2010 to reflect the actual enforcement policies of the DOJ and the FTC and the experience of these antitrust agencies that mergers leadings to HHI levels below 1500 typically did not cause competitive problems. Are antitrust economists, who have looked most closely on a case-by-case basis at the relationship between concentration and competition, in literally thousands of cases, completely off base here? Possibly, but I very much doubt it.

³³ We know from the previous chart that these averages mask considerable variation, and that some of the 893 four-digit industries have experienced very large increases in concentration leading to a high CR_4 . I focus here on the averages since we are looking for systematic and widespread changes in concentration.

To summarize, the Economic Census data show a modest average increase in concentration in four-digit NAICS industries. While these four-digit industries often do not line up well with properly defined antitrust markets, these data may reflect increases in concentration in many properly defined antitrust markets over the past 30 or 40 years. Indeed, it would be surprising if that were *not* the case, given the very substantial relaxation of merger enforcement in 1982 for firms with small or modest market shares and in markets with an HHI of less than 1000. The real question is whether those modest increases in concentration have been accompanied by a decline in competition, leading to higher prices or other consumer harms. One cannot answer that question just by looking at measures of concentration, no matter how good the data.

3.1.3. *The relationship between trends in concentration and competition*

Moving past these issues of measurement and magnitude, we come to some deeper questions. How should one interpret changes in concentration over time, and what forces would cause such changes to occur? To sharpen these key questions, consider these two alternative hypotheses:

- *Increase in Concentration Indicates a Decline in Competition:* If we see a market experience an increase in concentration over time, that indicates that this market has become less competitive.
- *Increase in Concentration Reflects the Forces of Competition:* If we see a market experience an increase in concentration over time, that reflects the forces of competition at work, with the firms providing better value to customers gaining market share.

So far as I can determine, the bulk of what has been written in the popular press simply *assumes* that an increase in concentration indicates a decline in competition—even if the resulting level of the four-firm concentration index is only 30% or 40%, meaning that quite a few firms continue to compete. Such an assumption strikes me as unjustified, especially given the forces of globalization and technological change that have transformed many industries in recent decades.

How can we distinguish between the two hypotheses presented above?

First, we need to recognize that markets in the U.S. economy differ vastly: in some markets an increase in concentration over time does indeed indicate a decline in competition, while in other markets the increase in concentration reflects the forces of competition at work. As a result of this heterogeneity, we need to look at individual markets, or at different sectors in the economy, to properly understand and interpret the changes in concentration we observe over time.

Second, and closely related, it is very important to understand the *process* by which concentration has increased over time in any given market. If the increase in concentration resulted from horizontal mergers, that opens up the possibility that inadequate merger enforcement was at fault. Merger retrospectives would be very informative in such markets, to see if the mergers that significantly raised concentration also harmed customers. Alternatively, if a market has experienced an increase in concentration due to

internal growth by one or a few suppliers, that suggests that these suppliers enjoyed some competitive advantages and gained market share by offering better value to customers, unless these firms engaged in some type of anti-competitive, exclusionary conduct. Identifying those competitive advantages, and the means by which the winners gained market share, would be very informative in this situation.

Several recent empirical studies take on the ambitious task of trying to answer these and related questions for the whole U.S. economy, or at least shed light on them, using concentration measures at the four-digit level based on data from the Economic Census.³⁴ Autor et al. (2017a) and (2017b) ask whether increases in concentration reflect the forces of competition, “so that super-star firms with higher productivity increasingly capture a larger slice of the market”, or “arise from anticompetitive forces whereby dominant firms are able to prevent actual and potential rivals from entering and expanding”.³⁵ Based on their finding that the industries that became more concentrated tended also to be the ones in which productivity increased the most, they conclude: “The findings suggest that a positive productivity-concentration relationship will most likely be a feature of any plausible explanation of rising industry concentration”. Their findings support the view that observed increases in concentration generally reflect the forces of competition at work in manner that has enhanced productivity. Antitrust economists would normally expect this type of competition to benefits customers as well.

Along similar lines, Bessen (2017) finds that an industry’s use of information technology systems (IT) is strongly associated with the level of concentration in that industry and the rise in concentration from 2002 to 2007. Within an industry, use of IT is associated with larger plant size, higher labor productivity, and higher operating profits margins. Focusing on the deployment of proprietary, mission-critical IT systems, he reaches this conclusion: “Successful IT systems appear to play a major role in the increases in industry concentration and in profit margins, moreso than declining concentration”.

3.2. Corporate profits

I now turn my attention to trends in corporate profits. The idea is simple enough: when markets are competitive, supra-normal profits will tend to be transitory. While any single firm may have high and persistent profits simply because it is especially efficient, observing high and persistent profits on a widespread basis tends to suggest that many firms are earning rents associated with market power and that their positions are protected by barriers to entry.

The *Economist* has been especially vocal on this issue, writing: “Profits are an essential part of capitalism. ... But high profits across a whole economy can be a sign of sickness.

³⁴ Gutiérrez and Philippon (2016) and Grullon, Larkin and Michaely (2017) use Compustat data to measure concentration at the three-digit level. For the reasons given above, I am highly skeptical that concentration measures at the three-digit (or two-digit) level are informative regarding competitive conditions in well-defined markets.

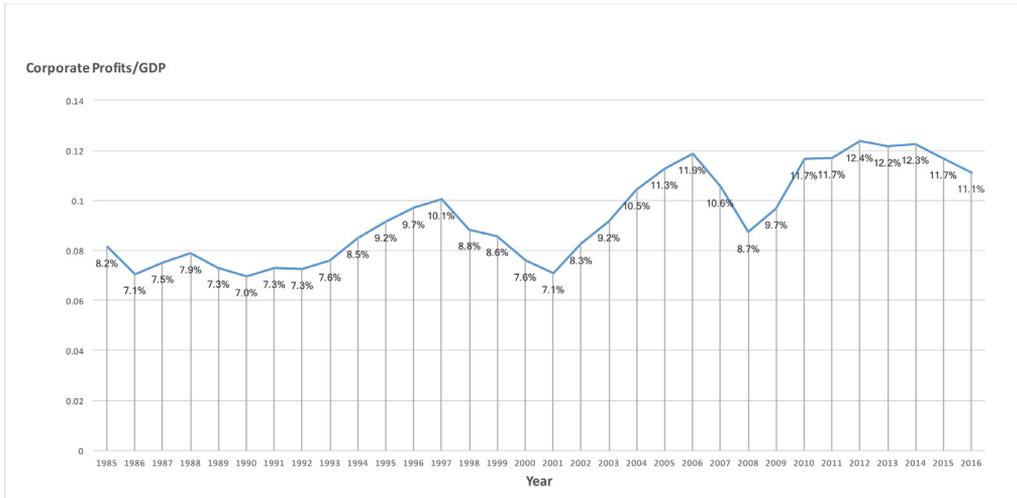
³⁵ Autor, et. al. (2017a), p. 184. Similarly, Barkai (2016) finds a correlation across industries between increases in concentration over time and declines in the labor share of valued-added over time.

They can signal the existence of firms more adept at siphoning wealth off than creating it afresh, such as those that exploit monopolies. If companies capture more profits than they can spend, it can lead to a shortfall of demand. This has been a pressing problem in America”.³⁶

Before turning to the data, it is worth noting that accounting profits often fail to line up with true economic profits. So, some caution is appropriate when looking at economy-wide data on profits. However, the disconnect between accounting profits and economic profits may matter less when looking at *changes* in profits over time than when looking at the *level* of profits, and when looking at a large number of firms.

Here is what the national income accounts show about corporate profits over the past 30 years:

Corporate Profits/GDP: 1985 to 2016



Source: Bureau of Economic Analysis, Table 1.7.5, “Relationship of Gross Domestic Product, Gross National Product, Net National Product, National Income and Personal Income,” Last Revised September 28, 2017, available at <https://bea.gov/iTable/iTable.cfm?reqid=19&step=2#reqid=19&step=3&isuri=1&1910=x&0=-9&1921=survey&1903=43&1904=1977&1905=2017&1906=a&1911=0>.

The Bureau of Economic Analysis (BEA) is seeking to measure “profits from current production”, so this measure of corporate profits excludes dividend income and capital gains and losses.³⁷ The BEA makes adjustments for changes in the value of inventories and depreciation of capital assets. Still, properly measuring corporate profits is a tricky business, not least because of unavoidable gaps between reported accounting profits and

³⁶ *Economist*, 26 March 2016, “Too Much of a Good Thing”, available at <https://www.economist.com/news/briefing/21695385-profits-are-too-high-america-needs-giant-dose-competition-too-much-good-thing>.

³⁷ See “Chapter 13: Corporate Profits”, December 2015, at <https://www.bea.gov/national/pdf/chapter13.pdf>. This measure of corporate profits includes all U.S. corporations and is made before deducting corporate income taxes.

true economic profits. I cannot delve into these important issues here; I confine my attention to high-level trends.

In short: there has been a very substantial increase in corporate profits as a share of GDP over the past thirty years: roughly a 50% increase from 7% to 8% of GDP up to 11% to 12% of GDP.

Interpreting this substantial increase in corporate profits is not straightforward, so my observations here are necessarily tentative. For example, one can ask how much of the growth in corporate profits merely reflects a higher cost of capital, e.g., due to higher interest rates or increased risk taking. I am highly skeptical of this explanation, especially given the historically low interest rates in the United States in recent years, which should cause the return on equity to be lower, not higher. Barkai (2016) firmly rejects this explanation.³⁸ One can also ask whether the increase in corporate profits is due to increased exports by U.S. corporations, which have little to do with increased market power in U.S. markets.³⁹ Plus, of course, it is always possible that some of the reported increase in corporate profits merely reflects accounting issues rather than an increase in true economic profits.

Still, these data strongly suggest that U.S. corporations really are systematically earning far higher profits than they were 25 or 30 years ago. Combined with other evidence that large corporations are accounting for an increasing share of revenue and employment, it certainly appears that many large U.S. corporations are earning substantial incumbency rents, and have been doing so for at least 10 years, apart from during the depths of the Great Recession.

There is also some limited evidence that high levels of profits are persistent at the firm level.⁴⁰ High and persistent profits for any one firm are easy to explain, in theory, based on that firm being more efficient than its rivals. But if high and persistent profits are widespread, any economist will naturally ask why competitive forces are not eroding those supra-normal profits.

This evidence leads quite naturally to the hypothesis that economies of scale are more important, in more markets, than they were 20 or 30 years ago. This could well be the result of technological progress in general, and the increasing role of information technology in particular. On this view, today's large incumbent firms are the survivors

³⁸ Barkai breaks out corporate profits into a required rate of return on capital and extra “profits” or rents. He finds “a large increase in the profit share in the U.S. non-financial corporate sector over the past 30 years.”

³⁹ The share of profits earned by U.S. corporations from exports grew from 14% in 1998 to 18% in 2016. BEA Table 6.17D, “Corporate Profits Before Tax by Industry”, 3 August 2017. So the growth of profits from exports explains a small portion of the overall growth of corporate profits as a share of GDP over the past 20 years.

⁴⁰ The *Economist* article on high profits cited McKinsey for the proposition that there was greater persistence of high profits from 2003 to 2013 than from 1993 to 2003. This question certainly warrants further study. For example, the *Economist* is referring to the persistence of profits at the level of the firm, but from a competition perspective we are more interested in persistence for a firm's participation in a specific market. For more on McKinsey's “economic profit” measure, see Chris Bradley, Angus Dawson, and Sven Smit, “The Strategic Yardstick You Can't Afford to Ignore”, *McKinsey Quarterly*, October 2013, available at <http://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/the-strategic-yardstick-you-cant-afford-to-ignore>.

who have managed to successfully obtain and exploit newly available economies of scale. And these large incumbent firms can persistently earn supra-normal profits if they are protected by entry barriers, i.e., if smaller firms and new entrants find it difficult and risky to make the investments and build the capabilities necessary to challenge them. As discussed in more detail below, in markets where this state of affairs prevails, namely oligopolies protected by barriers to entry, antitrust has a critical role to play to control mergers and acquisitions involving large incumbent firms, and to prevent these firms from engaging in exclusionary conduct.

In the hope of shedding some light on what has caused corporate profits to grow so much, I have broken out the BEA data on corporate profits by sector to learn how the growth of corporate profits over the past 20 years has been distributed across sectors. Here are what these data show:

Corporate Profits by Sector: Share of All Domestic Profits

Sector	1998	2016
Utilities	5.3%	1.1%
Construction	4.2%	5.1%
Manufacturing	29.7%	22.1%
Wholesale Trade	8.1%	7.0%
Retail Trade	9.9%	10.2%
Information	5.3%	7.8%
Finance & Insurance	13.6%	18.3%
Health Care & Social Assistance	2.1%	5.2%
Accommodation & Food Services	1.5%	2.6%

Source: Bureau of Economic Analysis, Table 6.17D, “Corporate Profits Before Tax by Industry,” August 3, 2016. 1998 is the earliest year for which these data are available, and 2016 is the latest year. These data are subject to all of the caveats noted above regarding accounting measures of profits.

Looking at this Table, I would highlight the following observations:

- Profits in the Manufacturing Sector fell sharply as a share of the total. This drop is consistent with the declining share of GDP attributable to manufacturing and with increased import competition. But we know from the literature on labor productivity that manufacturers also lowered their costs through automation. Manufacturing profits were roughly constant as a share of GDP (from 29.7% of 8.8% of GDP, which is 2.6% of GDP in 1998, to 22.1% of 11.1% of GDP, which is 2.5% of GDP in 2016).
- Profits in the Finance & Insurance sector grew sharply, from 13.6% of the total to 18.3% of the total. Since corporate profits as a share of GDP rose by about 50% from 1998 to 2016, this increase in the share of corporate profits to the finance and

insurance sector corresponds nearly to a doubling of these profits as a share of GDP (from 13.6% of 8.8% of GDP, which is 1.2% of GDP in 1998, to 18.3% of 11.1% of GDP, which is 2.0% of GDP in 2016). During the past five years (2012–2016), BEA Table 6.17D shows that corporate profits in Finance & Insurance totaled \$1.6 trillion. This is rather striking in the wake of the bailouts during the Financial Crisis, and quite worrisome given the consolidation that has taken place in this sector.

- Profits in the Health Care & Social Assistance sector have more than doubled as a share of the total. This most likely reflects both growth and consolidation in this sector.
- Profits in the Information Sector, which includes both media and high-tech, have grown as a share of the total, but not as dramatically as one might have thought looking at the enormous stock market values now attached to the largest firms in the tech sector. These sky-high market caps tell us that investors expect high future profits from these firms, suggesting that the share of profits attributable to this sector will continue to grow.

The CEA report looks at how the return to invested capital is distributed across firms, stating: “Returns on invested capital for publicly-traded U.S. non-financial firms have also become increasingly concentrated within a smaller segment of the market. Fig. 1 indicates that the 90th percentile firm sees returns on investments in capital that are more than five times the median. This ratio was close to two just a quarter of a century ago”.⁴¹ This observation is consistent with the findings of Autor et al. (2017b) that a relatively few “superstar” firms have captured a greater share of sales and profits in recent decades.

When interpreting the evidence on trends in corporate profits, it is useful to view that evidence in the context of two other ongoing trends relating to American businesses. First, there has been a long and steady decline in the rate at which new businesses are formed in the United States. Fig. 2 from the CEA Report shows that firm entry rates declined steadily from 1977 through 2013. Decker et al. (2016) discuss this trend in greater depth. Second, the United States has experienced a much-discussed productivity slowdown over the past 15 years, during which time the gap between the most productive and the least productive firms has widened.⁴² This growing gap may well reflect competition at work, as some firms become more efficient than their rivals. However, given the high levels of profits, it is natural to ask whether the growing gap between leaders and laggards also reflects less vigorous competition in oligopolistic markets, as the more efficient firms take their profits in the form of high price/cost margins rather than cutting prices to gain share, which would be more likely to force their less efficient rivals to exit the market.

⁴¹ Council of Economic Advisers (2016), p. 5. These data were compiled by the McKinsey Corporate Analysis tool in a manner that is opaque to me. See Furman and Orszag (2015).

⁴² See, for example, Baily and Montalbano (2016), which reports increasing productivity dispersion across firms and declining rates of new business formation. Andrews, et. al. (2015) show that productivity dispersion is increasing in many OECD countries. For thoughtful commentary on this evidence, see “The Great Divergence”, *Economist*, 12 November 2016, available at <https://www.economist.com/news/business/21709976-group-elite-firms-has-established-sustained-lead-not-good-thing-great>.

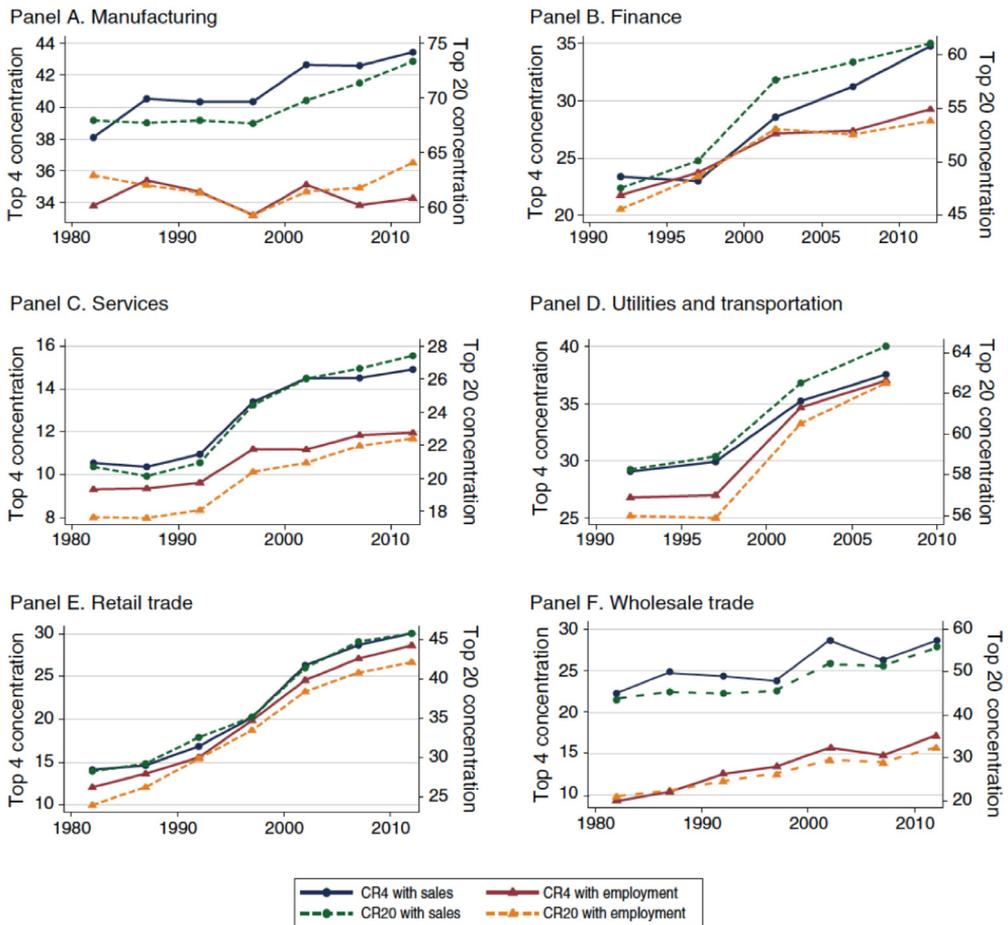


Fig. 1. Average top 4 industry concentration by major industry group.

This question is of great importance, given the findings of Decker et al. (2017) that much of the recent slowdown of productivity growth can be attributed to a weakening of the process by which resources shift toward the more efficient firms within an industry.

These concerns are further enhanced by evidence that high corporate profits are expected to persist into the future. This is most clear in the tech sector, where the platform leaders have breathtaking market caps. But the continued strength of the stock market generally must reflect investors’ confidence that high corporate profit flows are durable, together with low interest rates. The *Economist* calls this “the hidden message in American companies’ balance-sheet”.⁴³

⁴³ “The United States of Debt”, *Economist*, 15 July 2017, at <https://www.economist.com/news/business/21725010-hidden-message-american-companies-balance-sheets-united-states-debt>.

In sum, the evidence on corporate profits clearly shows that corporate profits have risen as a share of GDP. This evidence also points to a rise in incumbency rents, i.e., excess profits earned by firms whose positions are protected by high barriers to entry. While any good capitalist is naturally tempted to applaud the success of the large U.S. firms that have seen their profits grow so significantly, perhaps we should hold our applause until we understand better why competitive forces have not (yet?) been more effective at eroding these profits. Profits necessary to induce risky investments are one thing; incumbency rents are quite another.

4. Antitrust and competition policy responses

What does all of this imply for antitrust policy and competition policy going forward?

Antitrust policy can address concerns about rising concentration and high corporate profits (a) by increasing cartel enforcement efforts; (b) by imposing tighter controls on mergers; and (c) by taking a tougher approach to exclusionary conduct by dominant firms. Looking at competition policy more broadly, additional tools can come into play: (d) adopting policies that reduce entry barriers; (e) actively breaking up large firms in concentrated markets; and (f) regulating firms deemed to have substantial market power. I now address these six policy areas in turn.

4.1. *Stricter cartel enforcement*

Detecting and punishing collusion is the most fundamental component of antitrust policy. Cartels are criminal violations in the United States. I believe there is a consensus that antitrust enforcement in this area has become tougher over the past 25 years, both in the United States and especially worldwide. This can be attributed in part to the leniency program adopted and expanded by the DOJ some 25 years ago, and in part to the strengthening of anti-collusion laws and enforcement efforts in many countries and jurisdictions around the world, together with improved international cooperation in cartel investigations. Nonetheless, it is well understood that not all cartel activity is deterred. Indeed, the DOJ seems to uncover a steady stream of major cartels, many of them international in scope. So there is always more to do here.

More concentrated markets are generally regarded as more susceptible to the harms caused by durable, effective cartels and legal, interdependent conduct. Indeed, historically, the central rationale for merger enforcement was to limit market concentration to reduce the incidence of cartels and other forms of coordination among oligopolists. Logically, then, to the extent that U.S. markets have become more concentrated over time, cartel enforcement becomes all the more vital. Devoting additional resources to cartel enforcement is a natural response.

4.2. Stricter merger enforcement

Several types of economic evidence all support moving toward stricter merger enforcement in the United States: evidence that U.S. markets have become more concentrated, evidence that price/cost margins have risen, evidence that entry barriers have become higher, and evidence that corporate profits have risen substantially and are expected to persist.

Merger enforcement is especially important since a wide range of interdependent conduct by oligopolists, i.e., conduct whereby the oligopolists refrain from vigorous competition, is not considered to be illegal if it does not involve an agreement among those oligopolists.

Tightening up on horizontal merger enforcement policy would directly address the rising levels of concentration over the past 20 to 30 years that have received so much attention of late. Merger policy became noticeably more lenient with the adoption of the 1982 Merger Guidelines, which is roughly when concentration levels started to rise, at least in the manufacturing sector.⁴⁴ The 1968 Merger Guidelines stated that the DOJ “will ordinarily challenge” a merger between two firms with 5% market share each, or between a firm with a 20% market share and a firm with a 2% market share.⁴⁵ An even stricter approach was applied in markets with CR4 in excess of 75% and in markets with a trend toward concentration. Under the 1982 Merger Guidelines, only much larger levels and changes in concentration would trigger a presumption by the DOJ that a merger would harm competition.⁴⁶

Antitrust economists have debated for many years where to draw the line for horizontal merger enforcement. This is very much an empirical question. Merger retrospectives are especially valuable in this respect, since they directly address the relevant question: which mergers harm customers by lessening competition? There are a number of convincing merger retrospectives, especially those based on a difference-in-differences analysis, such as [Ashenfelter and Hosken \(2010\)](#). [Blonigen and Pierce \(2016\)](#) also is highly informative. They look at the impact of mergers across a wide range of industries using plant-level data, also taking a difference-in-differences approach. They find that mergers are associated with increases in average markups. They find little evidence that mergers increase efficiency through rationalization of production across plants or through savings in administrative costs. Overall, the evidence from U.S. merger retrospectives supports a shift to a moderately stricter merger enforcement policy.⁴⁷

[Salop and Shapiro \(2017\)](#) and [Hovenkamp and Shapiro \(2018\)](#) advocate a moderately stricter merger control policy. Treating horizontal mergers more strictly is directly

⁴⁴ See [Peltzman \(2014\)](#), op. cit. who makes precisely this argument.

⁴⁵ 1968 Merger Guidelines, at <https://www.justice.gov/sites/default/files/atr/legacy/2007/07/11/11247.pdf>, p. 6.

⁴⁶ 1982 Merger Guidelines, at <https://www.justice.gov/sites/default/files/atr/legacy/2007/07/11/11248.pdf>, p. 14. The 1982 Merger Guidelines also allowed more defenses in cases where the concentration line was crossed.

⁴⁷ See especially [Kwoka \(2015\)](#), with a critique by [Vita and Osinski \(2016\)](#) and response by [Kwoka \(2017a\)](#).

supported by the evidence from merger retrospectives. A shift to stricter merger enforcement is also supported, albeit less directly, by evidence of high and persistent corporate profits, which suggests the presence of meaningful barriers to entry and expansion in many markets. Higher barriers to entry and expansion make it less likely that entry by new firms, or expansion by small ones, will erode any market power that is enhanced by a merger.⁴⁸ In markets where economies of scale are significant, it may well make sense to allow smaller firms to merge to achieve lower costs and thus take on their larger rivals more effectively. But letting the largest firms in such markets merge is more likely to lessen competition, since these firms are each other's strongest rivals. Stricter merger enforcement policy is further supported by the *lack* of evidence that mergers involving industry leaders commonly generate genuine synergies that could not otherwise be achieved,⁴⁹ and by the growing presence of horizontal shareholding.⁵⁰

Stricter merger control policy could involve (a) challenging more mergers, (b) insisting on stronger remedies, and/or (c) including provisions in consent decrees to correct remedial errors.⁵¹ The DOJ and the FTC certainly have sufficient prosecutorial discretion to implement these types of changes. How such a shift would be greeted by the courts is hard to predict, but both the DOJ and the FTC have been quite successful in recent years with their merger challenges, and 50-year old Supreme Court precedent could be cited to support such a shift.⁵²

If the DOJ and FTC were to become more aggressive in challenging mergers, I would expect that would temporarily lead to more merger litigation. If DOJ and FTC were to win these new cases, the case law would evolve in favor of stronger merger enforcement, and the set of proposed mergers would adjust accordingly, so long as the DOJ and FTC stay the course. Alternatively, if the DOJ and FTC were to lose these new cases, they would be forced to pull back. In thinking about this dynamic, it is important to bear in mind that only a small fraction of proposed mergers are challenged by the DOJ and the FTC, and a tiny fraction result in a decision by the court. In the 2016 fiscal year, for example, 1832 merger transactions were reported to the DOJ and the FTC, of which 47, some 2.6%, were challenged, and only a few resulted in a court decision.⁵³

One promising way to tighten up on merger enforcement would be to apply tougher standards to mergers that may lessen competition *in the future*, even if they do not lessen competition right away. In the language of antitrust, these cases involve a loss of *potential*

⁴⁸ Likewise, if one accepts the finding by De Loecker and Eeckhout (2017) that price/cost margins in the U.S. economy rose sharply from 1980 to 2014, that would tend to indirectly support stricter merger enforcement policy.

⁴⁹ For a recent study, see “Mergers and Acquisitions Often Disappoint”, *Economist*, October 7, 2017.

⁵⁰ Horizontal shareholding refers to situations in which an institutional investor owns shares of two or more firms that are rivals in a concentrated product market. Scott Morton and Hovenkamp (2018) discuss the antitrust policy implications of horizontal shareholding. One implication is that horizontal mergers are likely to have anti-competitive effects at lower levels of market concentration than would otherwise be the case.

⁵¹ For more on how this last proposal could work, see Salop (2016).

⁵² See, especially, *United States v. Philadelphia National Bank*, 374 US. 321 (1963). See Hovenkamp and Shapiro (2017) on the legal and economic support for the “structural presumption” established in that case, and Kwoka (2017b) for further analysis supporting the use of the structural presumption.

⁵³ See Federal Trade Commission and U.S. Department of Justice Antitrust Division (2017).

competition. One common fact pattern that can involve a loss of future competition occurs when a large incumbent firm acquires a highly capable firm operating in an adjacent space. This happens frequently in the technology sector. Prominent examples include Google's acquisition of YouTube in 2006 and DoubleClick in 2007, Facebook's acquisition of Instagram in 2012 and of the virtual reality firm Oculus CR in 2014, and Microsoft's acquisition of LinkedIn in 2016. Smaller acquisitions happen on a regular basis, and indeed are an important exit strategy for tech startups.

Acquisitions like these can lessen future competition, even if they have no such immediate impact. To illustrate, suppose that the target firm has no explicit or immediate plans to challenge the incumbent firm on its home turf, but is one of several firms that is best placed to do so in the next several years by developing innovative new products or by improving or modifying its existing products. Not even the target firm knows for sure how its product offerings will evolve. Does it seem so far-fetched that the dominant incumbent firm, whose market capitalization will fall sharply if successful entry occurs, would pay a premium to acquire the target firm in order to avoid the risk of facing this pesky rival in a few years' time? Not to me. Nor does it seem far-fetched that a dominant incumbent firm can reliably identify the firms that are genuine future threats before the antitrust agencies or the courts can do so with confidence.

The problem for merger enforcement is distinguishing this fact pattern from a situation in which the dominant incumbent can and will greatly expand the reach and usage of the target firm's products, e.g., by combining the two products into one, or by using its distribution might to rapidly expand sales of the target firm's products. Making the problem even harder, these fact patterns can occur together for a single proposed merger.

Another classic example of a merger that may lessen competition in the future involves a leading incumbent firm merging with a large supplier, a large customer, or a large firm selling a complementary product, especially if the target firm is contemplating entering the incumbent's market. This was the case when the DOJ challenged the merger between Ticketmaster, which was dominant in providing ticketing services to certain venues, and LiveNation, which was a large customer of Ticketmaster that was developing its own ticketing services.⁵⁴ While such vertical mergers can generate efficiencies, they also can eliminate potential competition.

The DOJ and the FTC have been quite cautious about challenging mergers involving firms that do not currently compete (either much or at all) but which may well become important direct rivals in the foreseeable future. This reticence stems in part from the difficulty of showing that such a merger would significantly increase concentration in a well-defined market, which is normally a key element of the government's case. By showing such an increase in concentration, the government can establish a *prima facie* case that the merger is likely to substantially lessen competition. Furthermore, merger challenges based on the loss of potential competition necessarily rely on the prediction that the two merging firms will become significant competitors in the future. This is

⁵⁴ See <https://www.justice.gov/atr/case/us-et-al-v-ticketmaster-entertainment-inc-et-al>.

inherently a difficult thing to predict, and even harder for the government to prove as the merging firms themselves are trying to convince a court otherwise. And these obstacles are even harder in the high-tech sector, where products and services have overlapping functionality and can change significantly over relatively short periods of time.

Notwithstanding these genuine difficulties, there would be a big payoff in terms of competition and innovation if the DOJ and FTC could selectively prevent mergers that serve to solidify the positions of leading incumbent firms, including dominant technology firms, by eliminating future challengers.⁵⁵ As a general principle, the greater and more durable is the market power of an incumbent firm, the larger is the payoff from preventing that firm from acquiring the smaller firms that, if left to grow on their own, would become its strongest challengers. Sound competition policy would tolerate some false positives – blocking mergers involving targets, only to find that they do not grow to challenge the incumbent – in order to avoid some false negatives – allowing mergers that eliminate targets that would indeed have grown to challenge the dominant incumbent.

4.3. *Controlling exclusionary conduct by dominant firms*

Many of those calling for stronger antitrust enforcement are especially concerned about what they see as the enormous power of the largest tech firms, notably Amazon, Apple, Facebook, Google, and Microsoft.⁵⁶ The *Economist*, calling these firms “high-tech wizards”, states:

“the superstars are admirable in many ways. They churn out products that improve consumers’ lives, from smarter smartphones to sharper televisions. They provide Americans and Europeans with an estimated \$280 billion-worth of “free” services—such as search or directions—a year. But they have two big faults. They are squashing competition, and they are using the darker arts of management to stay ahead. Neither is easy to solve. But failing to do so risks a backlash which will be bad for everyone”.⁵⁷

⁵⁵ In Shapiro (2011), I explain that mergers between future rivals slow down innovation unless they significantly internalize spillovers associated with R&D or enable merger-specific synergies in conducting R&D. I specifically show that the evidence put forward in the literature that there is an inverse U-shaped function relating competition to innovation is generally either misleading or not relevant for the purpose of merger enforcement.

⁵⁶ Farhad Manjoo at the *New York Times* has taken to calling these firms the “Frightful Five.” See, for example, “Tech’s ‘Frightful 5’ Will Dominate Digital Life for Foreseeable Future”, *New York Times*, 20 January 2016, available at <https://www.nytimes.com/2016/01/21/technology/techs-frightful-5-will-dominate-digital-life-for-foreseeable-future.html>, “Tech’s Frightful Five: They’ve Got Us”, *New York Times*, 10 May 2017, available at <https://www.nytimes.com/2017/05/10/technology/techs-frightful-five-theyve-got-us.html>, and “How the Frightful Five Put Start-Ups in a Lose-Lose Situation”, *New York Times*, 18 October 2017, available at <https://www.nytimes.com/2017/10/18/technology/frightful-five-start-ups.html?rref=collection%2Fsectioncollection%2Fbusiness&action=click&contentCollection=business®ion=rank&module=package&version=highlights&contentPlacement=1&pgtype=sectionfront>.

⁵⁷ “A Giant Problem: The Rise of the Corporate Colossus Threatens Both Competition and the Legitimacy of Business”, *Economist*, 17 September 2016, op. cit.

Some are even calling to break up Amazon, Facebook and Google.⁵⁸

The *Economist* points squarely to antitrust as the solution to the “giant problem” posed by the largest tech firms, stating: “Above all, policymakers need to revamp antitrust policy for a world based on information and networks rather than on selling lumps of stuff”.⁵⁹ When it comes to specifics on just how antitrust policy needs to be revamped, the *Economist* is far more cautious than those calling for breakups, and far more grounded in U.S. antitrust law:

Antitrust authorities need to start setting the agenda by examining the ways that digital companies are using network effects to crowd out potential competitors, or inventing new ways of extracting rents by repackaging other people’s content. But the regulators must also beware of trying to load too much onto the rules: the point of antitrust policy is to promote competition and hence economic efficiency, not to solve problems such as inequality.⁶⁰

As an antitrust economist, my first question relating to exclusionary conduct is whether the dominant firm has engaged in conduct that departs from legitimate competition and maintains or enhances its dominance by excluding or weakening actual or potential rivals.⁶¹ In my experience, this type of inquiry is highly fact-intensive and may necessitate balancing pro-competitive justifications for the conduct being investigated with possible exclusionary effects. In the end, the key question is whether the conduct disrupts the competitive process and either harms customers or is likely to harm them in the future. Critically, the focus of the inquiry is on specific business conduct, not sheer size and just the presence of substantial market power.

The structured inquiry just sketched has long been the approach to monopolization cases taken by the U.S. courts. I believe this approach is sound and has widespread support among industrial organization economists. So I say: let these inquires proceed when suspicious conduct can be identified. But in doing so, let us avoid a “big is bad” mentality and let us truly have the interests of consumers in mind. We learned long ago that proper antitrust enforcement is about protecting consumers, and protecting the competitive process, not about protecting competitors. We must not forget that guiding principle. Indeed, that principle is especially important in markets subject to large economies of scale, whether those scale economies are based on traditional production economies or based on network effects, which are often important in the tech sector.

In this time of populism, many observers appear frustrated that the DOJ and the FTC have brought very few Sherman Act [Section 2](#) monopolization cases over the past

⁵⁸ “Should America’s Tech Giants Be Broken Up?” *Business Week*, 20 July 2017, available at <https://www.bloomberg.com/news/articles/2017-07-20/should-america-s-tech-giants-be-broken-up>. See also [Taplin \(2017\)](#) and Jonathan Taplin, “Is It Time to Break Up Google” *New York Times*, 22 April 2017, available at https://www.nytimes.com/2017/04/22/opinion/sunday/is-it-time-to-break-up-google.html?_r=0.

⁵⁹ “The Rise of the Superstars”, *Economist*, 17 September 2016, p. 16.

⁶⁰ “The Rise of the Superstars”, *Economist*, 17 September 2016, p. 16.

⁶¹ For issues related to *acquisitions* by dominant incumbent firms, in the tech sector or not, see the previous section.

25 years. I have three reactions to this complaint. First, I can say from personal experience that when I was the chief economist at the DOJ during 2009–2011, the Antitrust Division was genuinely interested in developing meritorious [Section 2](#) cases, and we were prepared to devote the resources necessary to investigate complaints and other leads, but we found precious few cases that warranted an enforcement action based on the facts and the case law.

Second, those calling for more monopolization cases must describe the specific conduct that concerns them and explain how that conduct disrupts the competitive process and harms customers. Simply saying that Amazon has grown like a weed, charges very low prices, and has driven many smaller retailers out of business is not sufficient. Where is the consumer harm? I presume that some large firms are engaging in questionable conduct, but I remain agnostic about the extent of such conduct among the giant firms in the tech sector or elsewhere. For better or worse, over the past thirty years the Supreme Court has made it harder for the government (and private plaintiffs) to win [Section 2](#) cases. The DOJ and the FTC could bring cases in an attempt to broaden the reach of the Sherman Act, but precedent in this area moves very slowly and I see no evidence that the current Supreme Court has an interest in greatly expanding the range of conduct that would be found to violate [Section 2](#) of the Sherman Act.⁶²

Third, it seems clear that some conduct that is permitted under the U.S. antitrust laws will be challenged by the European Commission under E.U. law, but I am not convinced that the European approach to evaluating unilateral conduct by dominant firms is superior to the American approach. In any event, the growing divergence between the U.S. and the E.U. in this area does provide a type of “natural experiment”. Researchers can look at conduct challenged by the European Commission, but not challenged by the DOJ or the FTC, as one way of trying to determine whether eliminating that conduct has led to consumer benefits. Simply observing that the EC is “more aggressive” than the DOJ or the FTC does not answer that question.

4.4. Reducing entry barriers and promoting competition

The evidence of high corporate profits, slower productivity growth, and declining rates of new business formation tells me that we should redouble our efforts to generally reduce entry barriers to promote competition, encourage entrepreneurship, and broaden economic opportunities.

There is bipartisan support for many initiatives along these lines, such as reducing occupational licensing requirements where they serve to protect incumbents rather than consumers,⁶³ and eliminating government restrictions that protect incumbents, such as

⁶² Amending the Sherman Act after 125 years is even more daunting, especially given the dysfunction in the U.S. Congress. Plus, it is not clear to me just what new general legislative language would constitute an improvement.

⁶³ See, for example, [Council of Economic Advisers \(2015\)](#).

the rules in many states that prohibit automobile manufacturers from selling their cars directly to consumers.⁶⁴

4.5. *Breaking up large tech firms*

As noted above, some are calling to break up today's tech giants. If these calls are motivated primarily by concerns about *political* power, then focusing attention on the tech sector seems peculiar to me. What about the energy, health care, media, and finance sectors? If these calls are motivated based on concerns about *economic* power, then I would first like to see some showing that breaking these firms up would leave consumers better off in the foreseeable future.

Any call to break up large tech firms based on economic considerations needs to address the concern that dismembering some of our most successful companies will significantly reduce economic efficiency. We know that firms vary greatly in their efficiencies within an industry, and we know that the more efficient firms tend to grow relative to others, at least until they run into diseconomies of scale. On this basis alone, breaking up the largest and most successful firms makes me rather nervous. On top of that, we know that there are substantial economies of scale of various types in the technology sector, including network effects and the economies of scale resulting from the fixed costs associated with developing new products, especially software and content. So these market may drift back toward winner-takes-most anyhow. I vote for strengthening enforcement of the Sherman Act rather than breaking up the largest tech firms.

4.6. *Regulating dominant firms*

Regulation is an alternative way of controlling monopoly power. Historically, price regulation has been reserved for natural monopolies such as the local distribution of electricity or local telephony. Price regulation is notoriously messy, but it can limit the ability of a firm with durable monopoly power to exploit that power. Antitrust is not well suited to preventing the exploitation of monopoly power, especially since "merely" charging a monopoly price is not an antitrust violation in the United States.

While some are calling to regulate today's dominant technology companies, price regulation tends to work rather poorly in industries experiencing technological change. Furthermore, it is well understood that industry-specific regulators are often subject to regulatory capture. For both of these reasons, I suspect there will be relatively little interest in setting up specialized agencies to prevent today's dominant technology companies from exploiting their market power by regulating the prices they can charge. However, regulations relating to privacy, data ownership and portability, or open interfaces and interconnection may attract widespread support. The substantive rules

⁶⁴ See, for example, [Crane \(2016\)](#).

governing such regulations, and the institutions created to implement such regulations, will matter a great deal to their efficacy.

5. Economic populism as an opportunity and a threat

Antitrust was born and then fortified during a period of populism in the United States in the late 19th and early 20th centuries. Likewise, today's populist sentiments—by which I mean the widespread and bipartisan concern that the deck is stacked in favor of large powerful firms—represent an opportunity, indeed a plea, to strengthen antitrust enforcement.

The empirical evidence supports moving in the direction of stronger merger enforcement. The empirical evidence also supports increased vigilance in preventing dominant firms with durable market power from engaging in business practices that exclude their actual and potential rivals. In this article, I have offered a number of constructive proposals along these lines. Rather than repeat those proposals, I close with a word of caution.

Today's populist sentiments pose a threat as well as an opportunity for antitrust. The danger to effective antitrust enforcement is that today's populist sentiments are fueling a “big is bad” mentality, leading to policies that will slow economic growth and harm consumers. The rest of this article is devoted to identifying this threat and discussing how such an error can be avoided.

I take as my starting point the core principle guiding antitrust enforcement in the United States that has served us well for so many years: *antitrust is about protecting the competitive process so consumers receive the full benefits of vigorous competition*. None of the empirical evidence relating to growing concentration and growing corporate profits, which I have discussed at length in this article, provides a basis for abandoning this core principle.

Applying this core principle, we understand quite well how to use antitrust to protect competition and consumers, at least conceptually. This enterprise centers on the economic notion of market power, and relies heavily on industrial organization economics. Of course, there is always room for improvement in practice, and right now that means stricter merger enforcement and vigilance regarding acts of monopolization, as already discussed.

The fundamental danger that 21st century populism poses to antitrust is that populism will cause us to abandon this core principle and thereby undermine economic growth and deprive consumers of many of the benefits of vigorous but fair competition. Economic growth will be undermined if firms are discouraged from competing vigorously for fear that they will be found to have violated the antitrust laws, or for fear they will be broken up if they are too successful.

Populism poses this danger in part because today's populism is in many ways animated more by concerns about the *political* power of large corporations than by concerns about their *economic* power. In this sense, there is a mismatch between 21st century populism and modern antitrust. More specifically if antitrust policy is altered to serve

goals other than the economic goals of promoting competition and protecting consumers, the core principle articulated above would have to be modified or abandoned. Examples of alternative goals for antitrust are the goal of having more small local businesses, the goal of raising wages or employment, and the goal of reducing the political power of large businesses.

I am deeply concerned about the current state of the American political system, and specifically about the political power of large corporations and the cramped definition of corruption that has been adopted by the Supreme Court.⁶⁵ Readers may be interested to learn that the *original* Chicago School, back in the 1920s and 1930s, which was associated with Frank Knight and Henry Simons, was also deeply concerned about the political power of large organizations. Here is what Henry Simons had to say in 1934:

“The representation of *laissez faire* as a merely do-nothing policy is unfortunate and misleading. It is an obvious responsibility of the state under this policy to maintain the kind of legal and institutional framework within which competition can function effectively as an agency of control. Thus, the state is charged, under this ‘division of labor,’ with heavy responsibilities and large ‘control’ functions: the maintenance of competitive conditions in industry”...⁶⁶

Simons went on (p. 4) to state that “the great enemy of democracy is monopoly, in all its forms”. As a practical matter, I do not see that antitrust can do a great deal to solve the deep problems we face relating to the political power of large corporations and the corruption of our political system. And I fear that assigning those massive tasks to antitrust will be counterproductive.

My hope is that the intense energy of populism will empower stronger antitrust enforcement policy in the United States with the goal of protecting the competitive process and channeling more of the benefits of economic growth to consumers. To protect and preserve this mission, it is important to recognize that antitrust cannot be expected to solve the larger political and social problems facing the United States today. In particular, while antitrust enforcement does tend to reduce income inequality, antitrust cannot and should not be the primary means of addressing income inequality; tax policies and employment policies need to play that role. Nor can antitrust be the primary policy for dealing with the corruption of our political system and the excessive political power of large corporations; that huge problem is better addressed by campaign finance reform, a better-informed citizenry, stronger protections for voting rights, and far tougher laws to combat corruption. Trying to use antitrust to solve problems outside the sphere of competition will not work and could well backfire.

⁶⁵ For an excellent discussion on this vitally important topics, see [Teachout \(2014\)](#).

⁶⁶ [Simons \(1934\)](#), p. 3.

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