POWERLESS:

How Lax Antitrust and Concentrated Market Power Rig the Economy Against American Workers, Consumers, and Communities





ABOUT THE ROOSEVELT INSTITUTE

Until the rules work for every American, they're not working.

The Roosevelt Institute asks: What does a better society look like? Armed with a bold vision for the future, we push the economic and social debate forward. We believe that those at the top hold too much power and wealth, and that our economy will be stronger when that changes. Ultimately, we want our work to move the country toward a new economic and political system: one built by many for the good of all.

It will take all of us to rewrite the rules. From emerging leaders to Nobel laureate economists, we've built a network of thousands. At Roosevelt, we make influencers more thoughtful and thinkers more influential. We also celebrate—and are inspired by—those whose work embodies the values of both Franklin and Eleanor Roosevelt and carries their vision forward today.

ABOUT THE AUTHORS

Marshall Steinbaum is the Research Director and a Fellow at the Roosevelt Institute, where he researches market power and inequality. He works on tax policy, antitrust and competition policy, and the labor market. He is a co-editor of After Piketty: The Agenda for Economics and Inequality, and his work has appeared in Democracy, Boston Review, Jacobin, the Journal of Economic Literature, the Industrial and Labor Relations Review, and ProMarket. Steinbaum earned a PhD in economics from the University of Chicago.

Eric Harris Bernstein is a Program Manager at the Roosevelt Institute, where he serves as a researcher and project coordinator on a wide range of policy areas including taxes, market power, and technology in the workplace. Prior to joining the Roosevelt Institute, Bernstein worked on the 2012 Obama campaign and conducted research on the Syrian civil war at the Institute for the Study of War.

John Sturm is a PhD student in economics at MIT, focusing on economic theory and systemic risk in economic networks. He previously worked as a Research Associate at the Roosevelt Institute, conducting empirical analyses of market power and monetary policy, and as a research assistant for Roosevelt Chief Economist Joseph E. Stiglitz at Columbia University. Sturm holds an MPhil in economics from the University of Cambridge and a BA in physics and math from Harvard University.

ACKNOWLEDGMENTS

We thank Ignacio González, Mike Konczal, and K. Sabeel Rahman for their comments and insight. Roosevelt staff Nell Abernathy, Kendra Bozarth, Rakeen Mabud, Katy Milani, Jennifer R Miller, Marybeth Seitz-Brown, Steph Sterling, Victoria Streker, and Alex Tucciarone all contributed to the project.

This report was made possible with the generous support of the Ford Foundation, Open Society Foundations, Ewing Marion Kauffman Foundation, and Arca Foundation. The contents of this publication are solely the responsibility of the authors.

Executive Summary

As workers, as consumers, and as citizens, Americans are increasingly powerless in today's society. Rhetoric extolling the virtues and power of free markets belie this fact, but instinctively, Americans understand that something is wrong: The vast majority of Americans believe the economy is "rigged" in favor of corporations. And they are correct: A 40-year assault on antitrust and competition policy—the laws and regulations meant to guard against the concentration of power in private hands—has helped tip the economy in favor of powerful corporations under the false pretense that the unencumbered ambitions of private business will align with the public good.

The single biggest problem with this simplistic view of "free" markets is that it ignores power dynamics and implies the existence of some natural state in which markets flourish without oversight. In reality, no state of natural market equilibrium exists. Healthy markets depend on rules to create an equitable balance of market power between workers, consumers, and businesses. And when those rules skew the balance of power, markets favor the most powerful to the detriment of others.

In reality, firms use market power to extract from other participants rather than compete to create the best products. This not only hurts those targeted, but also results in less growth and innovation overall. Accordingly, while corporate profits have risen, wages and investment have stagnated; rather than investing in research and development (R&D) to generate innovative products, corporations have relied on lax merger regulation to buy out competitors, or they have employed a litany of anti-competitive practices to prevent them from entering markets in the first place. Knowing that consumers and workers have few alternatives, powerful corporations have jacked up prices and lowered wages. Additionally, in many instances, technological developments—free of regulatory oversight—have exacerbated these problems, allowing companies like Google, Facebook, and Amazon to achieve market dominance by collecting reams of data and acting as an all-knowing middleman between customers and upstream suppliers.

The pro-monopoly ideology of the so-called "Chicago School" lurks behind all of these trends, ceding already-dominant incumbent firms and their shareholders more and more power that they can wield to their sole benefit—and at the expense of society at large.

Although the evidence of rising market power and its impact on the economy are often found in broad economic data, the consequences of market power are anything but theoretical. From rising prices, to low wages, to the way we access information, market power and lax competition policy are entrenching the intrinsic advantages of wealth and



power in society. Private interests increasingly determine access to critical goods and services, prioritizing privileged groups and thus exacerbating existing inequities of race, gender, and class.

In this paper, we provide evidence supporting our thesis, as well as illustrative examples of how this behavior has manifested itself in the lived experiences of regular Americans. Finally, we discuss the antitrust reforms that can begin to rebalance the economy in favor of equity, inclusion, and democratic rule.



Introduction

In Massachusetts, a 19-year-old is forced to forego her summer job as a camp counselor because of a non-compete clause she unknowingly signed with a different summer camp the year before.¹

In Chicago, a 69-year-old United Airlines passenger is beaten and forced off a plane for refusing to give up his seat to a United Airlines employee.²

In Hedgesville, West Virginia, two parents overdose on heroin at their daughter's softball practice. Like millions of Americans, they became addicted to opioids after being prescribed OxyContin, a painkiller manufactured and marketed under false pretenses by Purdue Pharmaceuticals.³ OxyContin—part of a class of drugs responsible for 33,000 U.S. deaths in 2015, according to the American Society of Addiction Medicine (2016)—has churned out \$35 billion in revenue for Purdue. The company has yet to face legal repercussions.⁴

Despite calls for disaster relief and gun control in the fall of 2017, as citizens in Puerto Rico were without water and electricity following the devastation of Hurricane Maria and the city of Las Vegas was reeling after yet another mass shooting, Congress's attention was elsewhere: Heeding Wall Street lobbyists, the Senate voted to strip Americans of their right to hold banks and credit providers accountable for malfeasance.⁵

As workers, as consumers, and as citizens, Americans are increasingly powerless in today's society. Rhetoric extolling the virtues and power of free markets belie this fact, but instinctively, Americans understand that something is wrong: The vast majority of Americans believe the economy is "rigged" in favor of corporations, according to a poll by Edison Research (2016). And they are correct: A 40-year assault on antitrust and competition policy—the laws and regulations meant to guard against the concentration of power in private hands—has helped tip the economy in favor of powerful corporations and wealthy shareholders over regular Americans.

Beginning in the 1970s, a concerted movement referred to as the "Chicago School" of antitrust beat back anti-monopoly policy through like-minded executive and judicial appointments, court rulings, and agency actions. The Chicago School argued that



¹ See Greenhouse (2014).

² See Bacon (2017).

³ As explained by Margaret Talbot on NPR's Fresh Air (2017).

⁴ See Morrell (2015).

⁵ See Merle (2017).

large corporations were large because they were efficient and because the free market incentivized them to operate in the best interest of consumers. If they didn't, so the story went, then new entrants were always at hand to ensure the economy "naturally" served the broad public interest. Government action to break up or regulate corporations, the Chicago School argued, would only impede their efficiency or protect incumbents at the expense of entrants. Under this regime, corporations and corporate conduct were presumed procompetitive, or economically efficient. Even for potentially anti-competitive behavior, the burden of proof was raised high enough to forestall regulatory relief.

As workers, as consumers, and as citizens, Americans are increasingly powerless in today's society.

This created a dramatic departure from vigorous antitrust protections that helped make the United States the world's most robust economy, and among the most equitable, during the postwar era. Prior to the 1970s, dating back to the age of Teddy Roosevelt and railroad robber-barons, but especially after the late 1930s, regulators took an active role in ensuring equal footing for workers, consumers, and small businesses. Authorities blocked mergers that would result in dominant businesses, broke up monopolies, and closely regulated networked industries like telecommunications, banning restrictive contractual arrangements likely to benefit incumbents at the expense of consumers and new entrants. In combination with a comprehensive social safety net and powerful labor unions, antitrust protections fostered healthy competition in which firms could succeed only by offering valuable products at reasonable prices and by attracting good workers with fair wages; firms that failed to innovate or satisfy customers were out-competed by new entrants. In this environment, wages and investment boomed and small businesses fueled strong employment.

In stark contrast, the results of the 40-year experiment in Chicago School antitrust have spelled disaster for the American workforce, middle class, and economy overall. While corporate profits have risen, wages and investment have stagnated. A recent study by De Loecker and Eeckhout (2017) shows that average firm-level markups—the amount charged over the cost of production—have more than tripled since 1980. And while waves of mergers have led to larger and more powerful corporations, small businesses form less often and struggle to survive. Recovery from the 2008 financial crisis—hastened by government bailouts for those at the top—has yet to benefit those at the middle and the bottom of income distribution.

The pro-monopoly policies of the Chicago School lurk behind all of these trends, ceding already-dominant incumbent firms and their shareholders more and more power that they can wield to their sole benefit—and at the expense of society at large. Rather than investing



in research and development (R&D) to generate innovative products, corporations have relied on lax merger regulation to buy out competitors, or they have employed a litany of anti-competitive practices to prevent them from entering the market in the first place. Knowing that consumers and workers have few alternatives, powerful corporations have jacked up prices and lowered wages. In many instances, technological developments—free of regulatory oversight—have exacerbated these problems, allowing companies like Google, Facebook, and Amazon to achieve market dominance by collecting reams of data and acting as an all-knowing middleman between customers and upstream suppliers. When firms achieve such power, their incentive to produce better products and services disappears, and they act instead to maintain their market stranglehold by any means necessary.

The results of the 40-year experiment in Chicago School antitrust have spelled disaster for the American workforce, middle class, and economy overall.

We define "market power" as the ability to skew market outcomes in one's own interest, without creating value or serving the public good.

We argue that market power, and the anti-competitive behavior that it enables, is a negative-sum game: Anti-competitive economies, like the one we have today, produce fewer jobs at lower wages, with more expensive goods and less innovation. We aim to both document the rise of market power and illustrate how it has affected the day-to-day lives and general well-being of American workers, consumers, and the productivity of the economy overall. In short, we show that Chicago Schoolinspired deregulation has enabled the rich and powerful to profit by taking a larger share of the economic pie, rather than making the pie bigger by offering valuable products and services at better prices.

Increased market power of consolidated firms is especially threatening to marginalized communities, which tend to have the fewest alternatives to exploitative goods and services providers. ACA exchanges in large swathes of rural America have only one health insurance provider, and that provider is free to charge exorbitant rates. For many urban neighborhoods, gentrification is the only hope of attracting a decent broadband connection, in which case the threat of rising rent sours the payoff. In markets for labor, consumer goods, or financial services, the first victims of predatory practices are the most vulnerable, be they young people, women, or people of color.



A recommitment to active antitrust policy is key not only to overturning the accumulations of wealth and power we see today, but also to reaping all of the societal benefits that come from undoing market power.

The Chicago School has championed the benefits of "free markets" but has in fact worked to thwart them. Conflating power with freedom, the Reagan-era ideology has used the free market as a rallying cry to justify policy changes that in reality benefit wealthy incumbent businesses at the expense of all others. This is the antithesis of the diffusion of economic power that is required to ensure that the economy rewards honest work, erodes privileged rent-extraction in all of its forms, and ultimately operates in the public interest. While professing to champion competition, the Chicago School has acted only to protect the unearned profits of monopolists while stifling entrepreneurship. A recommitment to active antitrust policy is key not only to overturning the accumulations of wealth and power we see today, but also to reaping all of the societal benefits that come from undoing market power.

This report begins by explaining the dangers of market power and the role of competition policy in maintaining a level playing field. We then outline how lax competition policy has handed incumbent corporations and their shareholders an unfair advantage and a more generous slice of the economic pie. We document the consolidation and exploitation of market power that has occurred in this environment and highlight key pieces of evidence that illustrate how weak competition is harming the economy—holding back new businesses, investment, wages, and growth. In the subsequent section, we review recent research that shows how concentrated corporate power impacts the everyday lives of Americans. We survey these effects through three lenses: the effects on consumers, on workers, and on society at large. In the final section, we discuss policy remedies that could help rebuild inclusive growth, foster economic innovation, and restore an equitable economy that serves all of its stakeholders.



SECTION ONE

The Theoretical and Institutional Background for Antitrust and Competition Policy

THE "FREE" MARKET—IN THEORY

Market economies rest on the theory that private self-interest can be aligned with the public good. In its simplest form, this theory holds that, because market interactions require the willing participation of workers, consumers, and businesses, each party will only participate in an interaction if it makes that party better off. If a worker is paid a satisfactory wage, a business owner receives a return on his or her investment, and a consumer is able to purchase a product they value at an acceptable price, then each individual benefits. In this context, firms that develop better products or reduce prices are rewarded with a larger share of the market and are thus incentivized to innovate; similarly, firms that offer a higher quality of life for employees through better pay and working conditions will attract the most productive workers and are therefore encouraged to raise wages. Competition among firms thus drives productive innovation and higher standards of living. Conversely, firms that overcharge for their products, fail to innovate, or pay low wages will lose out. It is an elegant and important theory, but it is also just that: theory.

THE RULES MATTER

The single biggest problem with this simplistic view of markets is that it ignores power dynamics and implies the existence of some natural state in which markets flourish without oversight. In reality, no state of natural market equilibrium exists, and the entrenched power of wealth poses an omnipresent threat to the equity of outcomes; healthy markets depend on rules to create an equitable balance of market power between workers, consumers, and businesses, and when those rules skew the balance of power, markets favor the most powerful to the detriment of others. Thus, an economy with no labor protections will favor employers over workers, while a society with confiscatory tax rates on investment returns will make it difficult for shareholders to exercise power over the businesses they own.



As this analysis implies, setting the rules to achieve an equitable balance of power between market participants is crucial. Furthermore, beyond laws and regulations, the rules include all manner of social, cultural, and political factors—from the things we invest in and the things we neglect, to which groups are discriminated against and which are privileged. When rules preference one group over another, that group may skew transactions in their own favor, driving up profits at others' expense. For example, redlining policies of the New Deal's federal housing finance agencies made it impossible for black communities to accumulate wealth through homeownership. Historically, marginalized communities have been underserved by public goods, including transportation and communications infrastructure. Physically and economically isolated, these populations became prey for firms that could get away with offering poor service and high prices due to a lack of alternatives—leading to today's discriminatory, segmented markets. Examples like this illustrate how the rules bear a deep and complex relationship to market outcomes.

We define market power as the ability to skew market outcomes in one's own interest, without creating value or serving the public good.

Building on the growing progressive consensus that market power is not simply a matter of higher prices but of market conditions more generally, we define market power as the ability to skew market outcomes in one's own interest, without creating value or serving the public good. This definition acknowledges that harm to workers, consumers, or other businesses can be wrought in a number of ways not connected directly to price. For example, if a firm eliminates the threat of competition by raising barriers to entry, consumers can feel the negative impact through the reduction in service, even if quoted prices remain the same. This definition allows us to consider the broader impact that market power has on innovation, wages, and other considerations beyond consumer price.

MARKET POWER AND MARKET FAILURE

When firms possess market power and use it to extract from other participants rather than compete to create the best products, it not only hurts those targeted, but also results in less growth and innovation overall. In the 1990s, for example, Microsoft sought to dominate the software market by leveraging its ubiquitous operating system, Windows. At the time,



Microsoft made its Office software compatible only with its Windows operating system, and Microsoft also ensured that Windows was the exclusive option for newly purchased desktop hardware. Crucially, it tied licensing contracts for Windows to its proprietary web browser, Internet Explorer. Thus, the company attempted to systemically eliminate competition in every market where it competed. This drove up Microsoft's share of the market for both operating systems and software—at the direct expense of its competitors. Since it sought to exclude rather than out-perform competitors, at every level of the supply chain, and because it interfered with healthy competition, this sort of behavior is referred to as "predatory" or "anti-competitive"—behavior that the federal government sought to address in its eventual antitrust suit against Microsoft in the late 1990s and early 2000s.

Anti-competitive behavior redistributes the surplus from market transactions away from less-advantaged firms, customers, and workers and toward the wealthy and powerful. Taking the analogy of a basketball game, we can liken anti-competitive behavior to repeatedly elbowing an opponent in the face, bribing referees, or rigging the scoreboard. Such strategies can lead to victory in a narrow sense, but to anyone with an understanding of basketball, it is anathema to the sport and defeats the purpose of the game. If a basketball game turns into a brawl, it's not "bad basketball" or "tough basketball"—it's not basketball at all.

Markets are only valuable when the rules provide for an even playing field between market participants.

It bears repeating that market power and the exercise of anti-competitive strategies shrink the economic pie overall. When firms like Microsoft erect barriers to entry, they prevent new competitors from entering the market, strangling new businesses and depriving the economy of the benefits of those businesses—namely, jobs and innovation. Thus, "anti-competitive" strategies do not simply result in higher prices for consumers, but in a slower pace of innovation and growth for the economy as a whole—notwithstanding empirically questionable research that ostensibly shows monopoly power promotes innovation. In short, when firms exercise market power, everyone else loses. Markets are only valuable when the rules provide for an even playing field between market participants.



MAKING MARKETS WORK: COMPETITION POLICY AND ITS ORIGINS

Recognizing the threat that disproportionate corporate power posed to the economy and our society, policymakers sought tools to combat market domination by large firms as early as the late 19th century. When the monopoly power of trusts like Standard Oil and the Pennsylvania Railroad sparked public outrage over high prices and poor service, Congress passed the Sherman and Clayton Antitrust acts, providing the legal means by which to regulate firms so that their size and power, and their use of predatory behavior, would not upend markets.

This new body of laws and regulations—dubbed antitrust in the United States and, more generally and in an international context, "competition policy"—was intended to guarantee that firms competed with one another on a level playing field, and that they did not become so powerful as to dominate workers, consumers, or smaller firms. In concert with labor⁶ and consumer protections, antitrust laws are one of three policy prongs intended to create an equitable balance of power between market actors. So, while competition policy cannot wholly eliminate market power from the economy, it is an important tool in limiting the ways in which market power can be deployed. Antitrust laws seek do this through three primary objectives:

- 1. Limiting the consolidation of power by regulating market structure. Market structure generally refers to the number of firms in a given market, as well as their relationship to consumers and suppliers. The structure of a market plays a large part in determining how much influence certain firms have over a market and how they are able to use it. So, in some ways, regulating market structure is the most foundational component of competition policy. In the era of active antitrust regulation, this was accomplished by policing a range of factors that included:
 - **Merger enforcement:** Regulating concentration was primarily accomplished by reviewing the impact of mergers. If authorities deemed that a merger resulted in a detrimental reduction in competition, they would seek to block or undo it.
 - Monopoly regulation: When a firm becomes the sole seller of a given good or service, it is a monopoly. When a firm achieved a monopoly, authorities would either

The so-called "structure-conduct-performance" (SCP) paradigm in antitrust enforcement, dominant prior to the Chicago School's takeover, expressly assumed that concentrated market structure entails anti-competitive conduct. A major part of the Chicago School's theoretical impact was showing that there was no such direct correspondence between a given structure and anti-competitive outcomes; concentrated markets could be either anti-competitive or pro-competitive, at least in theory. Nonetheless, the idea that concentrated markets enable anti-competitive conduct remains at the core of, for example, merger review.



⁶ Another key push to build balanced markets came in the 1930s, when President Franklin D. Roosevelt signed the National Labor Relations Act (NLRA) into law. This established a legal means through which workers could act collectively to counter the power of the large corporations that employed them—without exerting an undue and undesirable burden on the economy. Alongside antitrust protections, labor unions were designed in hopes of equalizing power in markets, so that they would be both productive and broadly beneficial.

- attempt to break up the firm or begin to closely regulate its practices to ensure it did not abuse its powerful position.
- **Vertical integration:** Firms active in more than one market, especially when they compete with their own suppliers or customers, were once considered anti-competitive due to the ability to favor themselves and exclude entrants, leveraging market power in one market to dominate others. But under the influence of the Chicago School, scrutiny of vertical integration was reduced almost to nonexistence; consequently, vertically integrated firms and even whole industries are far more prevalent today.
- 2. Curtailing anti-competitive behaviors. Firms are often able to engage in anti-competitive practices when structural regulation fails to eliminate market power or when firms simply break the rules. Collusion, for example—through which would-be competitors collaborate to set prices artificially high—is always possible, even in a theoretically competitive market. In Microsoft's case, its attempt to limit competition in software markets was based, in part, on the fact that it held a large share of the market for operating systems, but it was also based on the technological advantage that competing software companies depended on the same operating systems to run—an example in which market structure creates the scope for anti-competitive conduct. So, while anti-competitive practices are often enabled by some market power advantage, which structural regulation failed to address, they must sometimes be dealt with on a sectoral or case-by-case basis. Antitrust laws, therefore, made anti-competitive practices expressly illegal, and agencies tasked with identifying and prosecuting violations were created. Some key concerns included:
 - **Collusion or "price fixing":** As described above, collusion is when multiple—ostensibly competing—firms conspire to create a *de facto* monopoly and set prices artificially high.
 - **Predatory pricing:** In order to drive out would-be competitors, powerful firms sometimes sold goods and services under the cost of production. Seeing how such behavior threatened entrepreneurship and robust competition, authorities prohibited this practice.
 - **Vertical restraints:** This involves imposing restrictive contractual arrangements on counterparties (e.g., Microsoft requiring any hardware equipped with its Windows operating system to also carry Internet Explorer).
 - **Barriers to entry:** Once they are established, firms may seek to prevent competition by erecting barriers to entry. Such strategies can vary enormously, but some popular methods include: aggressive patent protections, leveraging relationships with federal regulators responsible for approving products, or collaborating with outside businesses to squeeze out new entrants.



3. Establishing public utility regulation of essential industries and "natural monopolies." Certain goods, such as water or electricity, are necessities of modern life. Consumers cannot simply choose to eschew these goods or find substitutes like they can with other products. This places firms that sell these goods and services at an enormous advantage. In many instances, the need for universal provision, combined with the cost of the infrastructure necessary to supply them, naturally lends these industries to monopoly, especially within a given region. Recognizing this, and also recognizing that limited private sector competition for the provision of utilities could be positive, authorities established laws to more strictly regulate these markets. This guaranteed access and prevented firms from exploiting the widespread need for their products or services—essentially holding consumers hostage—in order to extract undue profits. Some key industries included:

- Telephone networks
- Railroads
- Electricity

Beyond these economic concerns, 20th century antitrust was founded on the notion that the concentration of private power threatens not just economic equality, but democratic legitimacy as well. This view was perhaps best articulated and championed by Supreme Court Justice Louis Brandeis, who argued that, if left unchecked, wealthy firms and individuals would leverage their power to exert disproportionate influence over government decision-making. The danger of lax protections was not just the potential for runaway economic inequality, but also for the deterioration of democratic governance.

THE LIMITS OF ANTITRUST

Though antitrust protections of the mid-20th century were crucially important, recent history has proven that they were not enough. The success of these laws hinged on how they were interpreted and enforced by regulators and the judiciary. As interpretations have grown more lax, unanticipated threats have multiplied. Data aggregation and the proliferation of digital platforms like Google and Amazon, for example, pose new, unforeseen threats to workers, consumers, and society as a whole that remain completely unaddressed by existing competition policy. These challenges will require new laws, as well as new applications of existing ones.

Although antitrust reform is essential to limiting the consolidation of power by the wealthiest corporations and individuals, it will by no means ensure a just and equitable society on its own. Reining in dominance of those at the top will be impossible without also building power to oppose it through worker organizing. Political reform—to curtail or outlaw the sort of big money lobbying and advocacy that currently dominates our political system—



is also essential, as is a stronger social safety net, to ensure that the price of economic competition is not widespread poverty. So, although this report is focused on the evolution and challenges presented by market power, stronger antitrust is by no means a panacea to all economic challenges. Reform in these and many other areas, including on issues of gender and race inequality, is essential to the health of the economy and American society.

Although antitrust reform is essential to limiting the consolidation of power by the wealthiest corporations and individuals, it will by no means ensure a just and equitable society on its own.

ANTITRUST IN PERIL

As early as the 1940s—despite the clear success of revolutions in antitrust and pro-labor policies—wealthy firms and conservative political interests began a concerted effort to roll back strong competition policies in the hopes of taking a larger share of the economic pie for themselves. Ultimately, these interests hit on a novel argument: Private firms were naturally inclined to innovate, so any regulation only impeded growth and efficiency; rules that favored large firms would benefit consumers through lower prices; and any price markups in the event of reduced competition would be more than offset by cost savings in production.

But what this theory offered in novelty and an appealing sort of counter-intuitive logic, it lacked in empirical support and rigor. The pro-business camp placed enormous faith in optimistic predictions of firm behavior based on theoretical assumptions that were never tested. In doing so, it wholly ignored the importance of an equitable balance of power between market participants.

Despite the lack of evidence for the theories they articulated, the Chicago School's intellectual proponents—academics like George Stigler, Harold Demsetz, and Robert Bork—benefitted from an air of scholarly and technocratic authority. Emanating from reputable institutions and influential think tanks in Washington, proponents of this new laissez-faire competition policy claimed superior insight on the basis of their original work in economic theory. They downplayed the risks of consolidated private power and labeled Brandeis's approach to antitrust as dated and simplistic. (In reality, Brandeis himself had been noted for his introduction of empirical research into his jurisprudence.8)

Bork and others from the Chicago School hoped to cast out all but the most minimal of antitrust enforcements. As Baker (2015) summarizes, they held that "law should be

⁸ See Dreier (2016) and Berman (forthcoming).



reformed and refocused to strike at only three classes of behavior: 'naked' horizontal agreements to fix prices or divide markets, horizontal mergers to duopoly or monopoly, and a limited class of exclusionary conduct." This view reflected the Chicago School's founding assumption that—other than in the most extreme cases—firms would only ever work to increase market share through price reduction, and that, thus, regulation of all but the most blatant forms of anti-competitive conduct could be eliminated.

Starting in the 1980s, this formed the dominant view of competition policy in the United States, and with the election of the enthusiastically supportive Ronald Reagan, the Chicago School's vision began a swift conversion to reality. Soon, a wave of executive and judicial appointees beholden to its core beliefs set to work, regulating markets in the mold of the philosophy's pro-corporation, anti-statist beliefs, benefiting large incumbent firms over consumers, workers, and small businesses.

The success and prevalence of this ideology has been so profound that today, even Democratic-Party-appointed senior antitrust regulators assert "we are all Chicago School now" in their public appearances. The economic impact of that elite consensus is clear.

KEY CHANGES IN ANTITRUST UNDER THE CHICAGO SCHOOL:

- Relaxed merger guidelines: Under this new regime, mergers that may once have been deemed anti-competitive were increasingly permissible, leading to higher levels of consolidation along with the proliferation of market power.
- An end to the scrutiny of vertical integration: Mergers, in which the parties did not
 compete directly, were presumed to be motivated by efficiencies in production rather
 than the ability to exclude rivals from the market and siphon their market share.
- Elevated burdens of proof: Very broadly, the Chicago School raised the burdens of proof for a range of predatory behavior. Thus, while the behaviors remained potentially illegal, it became increasingly difficult to prevent or punish harmful practices because spurious defenses were given undue credence—e.g., that through some convoluted and empirically unproven mechanism, exclusionary conduct benefited consumers.



SECTION TWO

The Market Power Economy

In this lax regulatory environment, we have seen precisely the sort of economic outcomes that we would expect from a lopsided economy. A growing body of evidence indicates that whatever mechanism once translated economic surplus into shared growth is now broken. As seen in Figure 1, corporate profits—when measured as a share of the economy—are at a historic peak. And even though the cost of borrowing is low, incumbents are not investing or expanding operations to out-compete one another (Furman and Orszag, 2015; Barkai 2016; Gutierrez and Phillippon, 2017). This suggests that powerful firms, operating with little competition, have been able to profit by raising prices and cutting wages, rather than by investing in new, valuable products. Recent work by De Loecker and Eeckhout (2017) finds that firm-level markups have increased from 18 percent to 67 percent since 1980—a pattern that holds across all industries. In keeping with the market power hypothesis, we also see that profits have increased most in the industries that have become more concentrated, and that wage growth has been most stagnant in these same concentrated industries (Barkai 2016; Gutierrez and Philippon, 2017; Grullon, 2016).

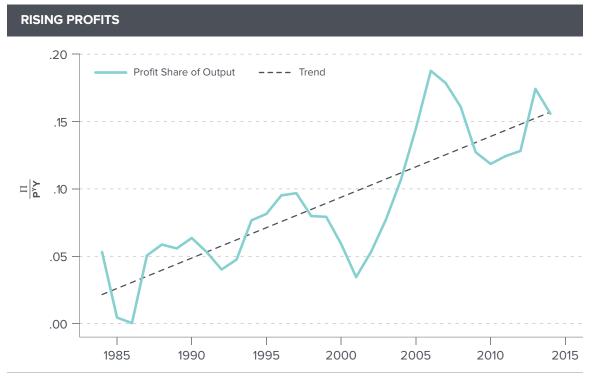


FIGURE 1 Barkai estimates a rising profit share of gross value added in the economy. This has come at the expense of both wages and corporate investment. Source: Barkai (2017).



Recent work by De Loecker and Eeckhout (2017) finds that firm-level markups have increased from 18 percent to 67 percent since 1980—a pattern that holds across all industries.

Of course, concentration is not synonymous with market power, but when combined with substantial policy changes at the federal level and a host of qualitative observations, the case that rising market power and anti-competitive behavior have caused our current growth and wage stagnation looks compelling. Below we present six pieces of evidence that, when taken together, strongly support this view:

Fact 1: Fewer firms, less competition

Since the rise of the Chicago School antitrust policy, U.S. markets have consolidated dramatically. The number of mergers and acquisitions has skyrocketed—increasing from less than 2,000 in 1980 to roughly 14,000 per year since 2000. As a result, Grullon et al. (2016) found that between 1997 and 2012 more than 75 percent of U.S. industries became more concentrated, meaning a smaller number of larger firms account for most of the revenue. The number of publicly traded corporations and their share of the total market are also lower than at any time in the last 100 years. Furthermore, conventional measures of concentration do not even capture concerns over common ownership: As institutional investors have come to dominate stock markets, they have bought shares of multiple firms in the same industry. Azar et al. (2016) document that individual institutional investors—firms like Vanguard and BlackRock—own large fractions of all main "competitors" in the technology, drug store, banking, and airlines industries.

The number of mergers and acquisitions has skyrocketed—increasing from less than 2,000 in 1980 to roughly 14,000 per year since 2000.



⁹ See merger and acquisition statistics (2017) from the IMAA.

INCREASES IN CONCENTRATION BY INDUSTRY			
Industry	Revenue Earned by 50 Largest Firms, 2012 (Billions \$)	Revenue Share Earned by 50 Largest Firms, 2012	% Point Change in Revenue Share Earned by 50 Largest Firms, 1997-2012
Transportation and Warehousing	307.9	42.1	11.4
Retail Trade	1,555.8	36.9	11.2
Finance and Insurance	1,762.7	48.5	9.9
Wholesale Trade	2,183.1	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

FIGURE 2 Between 1997 and 2012, most U.S. industries became more consolidated. Source: Furman (2016).

It is increasingly apparent that this consolidation has had detrimental effects on the overall economy. Recent research highlights several key indicators.

Fact 2: Higher prices

A spate of recent studies shows consumer prices rising in conjunction with consolidation. Gutierrez and Philippon (2017) document that markups of prices over the cost of production have increased in line with aggregate trends in consolidation, and that these shifts are driven by large firms and concentrating industries. Kwoka (2013) conducts a meta-analysis of merger retrospectives—studies comparing prices that companies charged before and after they merged. Combining the data from retrospectives on 46 mergers since 1970, Kwoka finds an average price increase of 7.29 percent. This study doesn't include enough mergers to conclusively settle the debate, but it's enough to cast serious doubt on the theory that underlies the past 40 years of competition policy. Most recently, De Loecker and Eeckhout (2017) use a database of publicly traded firms to find that markups—the amount a firm charges above its costs—have risen to an astounding average of 67 percent, compared to just 18 percent in 1980. Although De Loecker and Eeckhout do not offer a causal analysis, other studies of markups and consolidation lend credence to the link between consolidation, market power, and rising prices.



MARKUPS OF PRICE OVER COST



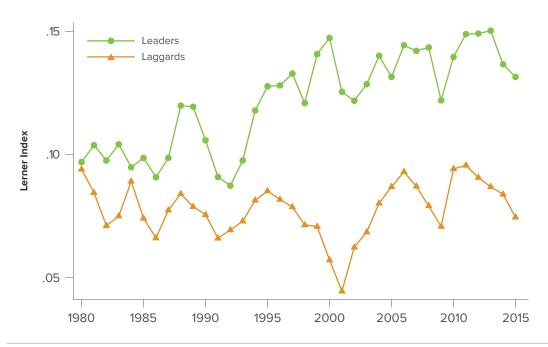


FIGURE 3A & 3B The Lerner index of a firm—computed by subtracting depreciation from operating income and dividing by sales—is a measure of its markups of prices over the cost of production. Figure 3a (above) shows that, on aggregate, Lerner indices have tracked increases in concentration and common ownership (measured by M-HHI). Figure 3b (below) shows that markups have increased for the largest one-third of firms (by stock market value) but not the smallest one-third. Source: Gutierrez and Philippon (2017).



But consolidation is not the only way that market power can impact prices in today's economy. The increasing role of institutional investors in capital markets has exacerbated the lack of competition and the rise of prices in consumer markets. As previously noted, investors like Vanguard and BlackRock own large shares of multiple businesses within an industry. In terms of competition and price, this "common ownership" can have similar, or even more severe, ramifications as a merger. In a recent paper, Azar, Schmalz, and Tecu (2016) measure the effects of common ownership in the airline industry. Comparing routes of independent airlines to those owned by similar shareholders, the economists find that prices would be 3 to 7 percent lower if all airlines were owned independently. Importantly, these studies did not count the much-documented rise of ancillary fees, which, in addition to being a thorn in the side of cash-strapped flyers, have grown appreciably in recent years. In other work, Azar, Raina, and Schmalz (2016) show that common ownership of banks decreases interest rates and increases fees for depositors.

Fact 3: New and small businesses are struggling while large incumbents thrive

Furman (2016) documents that for 40 years, the rate of firm entry has decreased, as has the share of sales and employment corresponding to young businesses. This suggests that it has become harder for new companies—facing larger, often predatory incumbents—to overcome barriers to entry. This is especially problematic, given that new businesses, as disproportionate creators of jobs, are essential to a healthy economy. At the same time, the largest firms are thriving: Gutierrez and Phillipon (2017) document that since 1980, measures of profitability have increased for the largest firms while remaining constant for small ones. Other data shows that the gap between the profitability of median and high-performing firms has increased dramatically with time, and that the most profitable firms tend to maintain their high returns year after year. 13

This suggests that it has become harder for new companies—facing larger, often predatory incumbents—to overcome barriers to entry.



¹⁰ Interestingly, but perhaps unsurprisingly, see the American Customer Satisfaction Index (2017).

¹¹ See White (2016).

¹² See Haltiwanger et al. (2010).

¹³ See Furman and Orzsag (2015); De Loecker and Eeckhout (2017).



FIGURE 4 The rate of new business formation has steadily declined since the 1980s. The rate of firm entry (exit) is the percentage of firms that entered (exited) the market in a year, divided by the total number of firms. Source: Furman (2016).

Fact 4: Corporate investment is low, especially in concentrated industries

If barriers to entry and other predatory practices are indeed isolating incumbents from competition, then we would expect them to exercise their monopoly power by producing less and charging more, rather than by making new investments to scale up operations or develop cost-cutting technologies. And indeed, evidence shows this is precisely what is occurring. Gutierrez and Philippon (2016) document that corporate investment is low compared to what firms' market values would predict, and that this lowered investment corresponds to more consolidated industries. ¹⁴ In a 2017 paper, the same authors go a step

¹⁴ Brun and González (2017) offer a different, though compatible, view of the relationship between market power and market value. This paper and a forthcoming paper from Brun et al. (2018) argue that investment is not low despite high market values, but that market values are themselves inflated because of market power-based rents, which also—as we describe—hinder investment. Regardless, the divergence between market value and profitability on one hand, and productive investment on the other, is clear.



further, using two methods to show that this relationship is causal. First, they demonstrate that leading manufacturing firms invested and innovated more in response to increases in Chinese competition. Second, they document higher levels of investment in industries that—likely due to bubbles or optimistic venture capitalists in the 1990s—were less concentrated during the 2000s. ¹⁵

Fact 5: Workers are more productive, but their pay has stagnated

For 40 years, median wages have stagnated, even as workers become more productive, and the share of GDP paid as income to workers has declined since 2000. Hill While economists have tested many explanations for these shifts—technological change and automation, global competition between workers, the rising cost of benefits—none of the factors considered explains why corporate profits have grown over the same period. Indeed, Barkai (2016) documents that while corporations have paid out less of their revenue as wages, they have also spent less on capital assets like machines, offices, and software, further increasing their profits. Barkai's work points to a different theory: The labor share of income has decreased most in consolidating industries, suggesting that corporations are paying low wages simply because their power and the lack of competition with other firms allow them to.

Even as the total share of private sector revenue paid as wages has declined, the rise of market power has increased wage inequality, by contributing to median wage stagnation and enabling runaway gains at the top. For example, the ratio of a top CEO's compensation to that of an average worker has increased roughly ten-fold, from 30-to-1 in 1978, to 271-to-1 in 2016. This relates to market power because, rather than simply paying employees less, large firms have sought to lower labor costs by pushing workers out of direct employment altogether, outsourcing them instead. Powerful "lead firms" are thereby able to avoid liability under substantial components of U.S. labor law, while leveraging their market power to drive down wages through a litany of extractive tactics aimed at the outside firms employing their former workers. This is related both to the "fissured workplace," described by David Weil (2014), and to interfirm inequality, described by Song et al. (2016) and Furman and Orszag (2015). We discuss these phenomena, and their



The fact that high concentration and high profits correspond to low investment, at both the firm level and for the economy as a whole, means that the cause of rising profits is unlikely to be rising fixed costs of entry, which the few firms who do enter need to recoup in the form of higher markups. That is how you would generate high markups in an essentially competitive context, such as the models of firm size and profit heterogeneity proposed by the Chicago School. Yet, what we see, in fact, is that profitable firms don't need to invest—they're profitable because they face little competition and can exploit other market participants, all without investing the proceeds back into the economy.

¹⁶ See Bivens and Mishel (2015) and the Economic Policy Institute's "State of Working America" (2012).

¹⁷ Ibid.

relationship both to lax labor and antitrust protections, in the worker sub-section of "Market Power and Everyday Life" below.

The labor share of income has decreased most in consolidating industries, suggesting that corporations are paying low wages simply because their power and the lack of competition with other firms allow them to.

Fact 6: Workers have a harder time changing and accessing jobs

Trends of consolidation and declining wage growth coincide with decreases in geographic, job, and occupational mobility. Konczal and Steinbaum (2016) argue that with fewer alternative employers, workers are receiving fewer offers to work at other firms, thus forcing them to stay at the same job and tolerate lower wage growth.

Song et al. (2016) compare wages across firms and reveal that workers with similar levels of education and experience receive starkly different pay depending on their employers, and that the degree of wage segregation by firm has increased starkly over the same period in which inequality has risen (since 1980). In a competitive labor market, firm pay differentials for similar work done by similar workers should be driven to zero. Therefore, inequality in interfirm earnings suggests that pay may have less to do with an individual's productivity and more to do with their ability to bargain or to gain access to particular firms and individuals and benefit from those personal connections. The idea that worker-side variables cannot explain observed wage inequality is a fundamental challenge to the notion that the labor market is competitive.

On their own, these aggregate trends cannot establish individual instances of anticompetitive behavior, but they do imply that there is a significant and growing problem of consolidated market power. In the following sections, we delve deeper into this body of research, considering evidence of market power and exploring how it affects the everyday lives of American consumers and workers, as well as society at large.



SECTION THREE

Market Power in Everyday Life

Economic data on rising prices and stagnating wages helps to drive home the point that the ill effects of market power and Chicago School policies are anything but theoretical. Corporations increasingly exert unopposed influence over the lived experience of American consumers, workers, and citizens. From rising prices, to low wages, to the way we access information, market power and lax competition policy are entrenching the intrinsic advantages of wealth and power in society. Private interests increasingly determine access to critical goods and services, prioritizing privileged groups and thus exacerbating existing inequities of race, gender, and class.

In this section, we aim to illustrate how the broad policy changes discussed above result in poor outcomes for American consumers, workers, and society. We show how consolidation and predatory behavior lead not only to higher prices, worse service, and less choice for consumers, but also threaten the pace of innovation. We show how consolidation results in fewer jobs and lower pay for workers, and how firms are using anti-competitive and predatory practices in order to further entrench their labor market dominance. Finally, we provide a broader view on the impacts of market power and Chicago School antitrust, showing how the consolidation of power affects geographic inequality, the flow of information, and the long-term health of our democratic system.

MARKET POWER AND CONSUMERS:

LESS INNOVATION, HIGHER PRICES

Although it has hinged on alleged benefits to consumers, the Chicago School's lax approach to competition policy has allowed corporations to pursue profit-making strategies through which consumers lose twice: first, because powerful firms facing little competition are able to raise prices at will; second, because these firms choose to re-invest profits in attaining more market power, which not only reduces consumer choice, but also detracts from investment and competition aimed at developing better products and lowering prices.

Across the board, market power enables corporations to profit by taking advantage of consumers, rather than by serving them.



In this predatory environment, the most significant innovations have been new methods of obtaining unfair gains, by misleading customers, entrapping them, or discriminating to extract consumer surplus. Even when the resulting conglomerates do invest in new technology and gain an innovative edge, weak competition means they face no pressure to pass the value created along to consumers. Across the board, market power enables corporations to profit by taking advantage of consumers, rather than by serving them.

Fewer choices, worse service, less innovation

Massive consolidation has left consumers with fewer choices and firms with less incentive to compete for customers. Walk into a retailer to buy a new pair of eyeglasses and you will likely find yourself overwhelmed with options. Upon closer inspection, however, you may notice striking similarities between models. You may also notice prices that are similarly high. That is because, whether buying from Prada, Oakley, or Target brand, you actually have a 4-in-5 chance of buying Luxottica—the Italian monopoly that owns 80 percent of major eyewear brands. Likewise, think of every food brand you have ever seen on the shelves of any major grocery store. Chances are these products are owned by one of ten international conglomerates like Unilever, Kellogg's, and General Mills. 19

Until the Chicago School successfully beat back regulatory standards, competition authorities closely monitored such market dominance. Today, we are left to ask: With such large shares in their respective markets, how hard will companies work to develop new, appealing products and win over new consumers? The ramifications of such broad consolidation and the erosion of competition are severe.

Fewer firms holding more and more power not only means fewer choices for consumers, but also creates less of an incentive for firms to focus on providing the best products and service. Tim Wu (2012) points out that a firm can invest in stifling competitors directly—by erecting barriers to entry or acquiring other firms—rather than investing in capital or R&D that would help it outcompete them in the marketplace. Indeed—as mentioned in the previous section—recent research shows that corporations are investing at record-low levels, especially in the most consolidated markets. The outcome for consumers can range from irksome to deadly.

Instead of investing in R&D, many pharmaceutical companies plan their business models around their ability to purchase smaller firms that have shouldered the burden of developing new products.²⁰ Strategies like these are predicated on the notion that



¹⁸ See Swanson (2014).

¹⁹ See Oxfam (2013).

²⁰ For a good summary of relevant trends and research, see Danzon (2006).

lax competition policy will green-light mergers with minimal scrutiny, even though this environment holds innovation back: Ornaghi (2009) finds that after merging, pharmaceutical companies have lower R&D spending, fewer new patents, and fewer patents per R&D spending, compared to non-consolidated competitors. Among pharmaceutical firms in Europe, Haucup and Stiebale (2016) find that even *competitors* of merged companies innovate less. Nowhere else could the costs of market power and anti-competitive behavior be more clear or more severe: Even when the discovery of a new product could save thousands of lives, powerful pharmaceutical companies have based their business strategies on acquiring and maintaining market power.

Even in more benign examples, we can observe that less competition has translated into worsening consumer experience. A regular survey conducted by Arizona State University's W.P. Carey School of Business (2017) found that customer dissatisfaction in the U.S. has climbed 20 percentage points over the past 40 years, while customer satisfaction has fallen. Comporting with the thesis that much of this is driven by consolidation and lacking competition, we observe that the decline in service has been led by TV, phone, and Internet service providers—some of the most concentrated industries in the country, with customer satisfaction ratings routinely below that of the IRS.²¹ As firms become more powerful, their incentive to please customers will almost always decrease.

Nowhere else could the costs of market power and anti-competitive behavior be more clear or more severe: Even when the discovery of a new product could save thousands of lives, powerful pharmaceutical companies have based their business strategies on acquiring and maintaining market power.

Amazon's activity in shoe retail serves as another good illustration of the connection between competition policy, market power, and threats to consumer well-being. When Zappos.com executives refused to sell the company to Amazon in 2007, Amazon began lowering its prices on Zappos shoes and offering additional services like free express shipping in an effort to out-compete the popular online shoe retailer. Normally, this sort of competition would be a good thingfor consumers, since it results in lower prices. Amazon's strategy, however, was based on power—not innovation: Over the course of a two-year battle



²¹ See the American Customer Satisfaction Index, December 2017.

with Zappos, Amazon drew on its vast wealth, pre-existing distribution network, and large customer base, running up losses of \$150 million in an effort to eliminate its competitor. Lacking Amazon's vast wealth and power, Zappos capitulated and sold to Amazon in 2009. The tactic of lowering prices below cost in order to starve competitors—known as predatory pricing—is technically illegal, but Chicago School policymakers have raised the burden of proof so high that companies can employ this strategy without fear of triggering regulatory scrutiny. Amazon alone has used this precise tactic in several high-profile cases, including with Diapers.com, which Amazon purchased and shut down in 2017.²²

In the long run, anti-competitive behavior not only reduces the incentive to improve products and services, but also may deter entrepreneurs from entering consolidated industries to begin with.

Given Amazon's professed commitment to service in the Zappos example, some may assume that consumers, despite having lost a popular vendor, are not much worse off; this, however, is shortsighted. In the long run, anti-competitive behavior not only reduces the incentive to improve products and services, but also may deter entrepreneurs from entering consolidated industries to begin with. With the disappearance of customer-first firms like Zappos, Amazon lacks the competitive pressure to maintain the high level of service and low prices it offered in the effort to drive them out of business. And while Amazon's customer satisfaction ratings remain high, there is no guarantee that this behavior won't fade as competition dries up. The decision to offer good service, in other words, has been left entirely to the good graces of Amazon's management. This dynamic is true wherever competition is appreciably reduced and should weigh heavily on the minds of consumers and regulators alike.

Examples of the slowed pace of innovation and evaporating consumer choice suggest that lax antitrust may be far from optimal, even if consolidation does drive lower prices, as Chicago School dogma suggests it should. Even in the narrow category of consumer prices, however, we find ample evidence that our anti-competitive economy has actually led to higher prices.



²² Tellingly, Amazon, likely self-conscious over its own brazen grab for market power, blamed the decision on financial—rather than strategic—considerations, despite reports that the subsidiary was on the verge of achieving profitability. This explanation has been disputed in Oremus (2013) and Del Rey (2017).

Higher prices

If Chicago School antitrust deregulation purported one thing for Americans, it was a dramatic reduction in the costs of the goods and services they rely on to survive. And yet, as described in Fact 2, numerous studies across many industries suggest that consolidation and other anti-competitive practices have actually caused prices to rise for American consumers.

Although undetected by most Americans, the issues of market power and anti-competitive behavior have dramatic consequences in daily life. If less competition results in an additional 5 percent markup on grocery prices, that increase can be enough to break the bank for a working class family. Lower prices can give consumers flexibility, relieve financial burdens, and make it possible to save for investments like college tuition, but the alleged cost benefits of consolidation, if they do arise, must also be considered. Meanwhile, higher prices seen today mean higher profits for shareholders and CEOs.

Although undetected by most Americans, the issues of market power and anti-competitive behavior have dramatic consequences in daily life.

The realization that markups might actually be rising elevates the false promise of Chicago School policies: The implicit trade-off offered by the Chicago School antitrust authorities was one of lower prices for less competition. But if less competition actually results in higher prices, as the data suggests it does, then American consumers are being subjected to a lose-lose agreement.



TARGETED PREDATORY BEHAVIOR

Firms also exercise their market power by charging different prices to different customers—a practice called price discrimination. This can be benign, as in the case of discounted movie tickets for children and the elderly, but price discrimination can also serve as a tool for corporations to exploit the most desperate and least informed—consumers with the fewest alternatives.

Firms also exercise their market power by charging different prices to different customers a practice called price discrimination.

Price discrimination often targets neighborhoods of color, whose populations are disproportionately lowincome and where firms make use of the structural absence of market access. Bayer, Ferreira, and Ross (2016) show that after controlling for credit scores and other risk factors. African American and Hispanic borrowers are roughly twice as likely to have high-cost home mortgages because they are served by higher-cost mortgage providers—so-called "market segmentation." A recent analysis by Angwin et al. (2016) of ProPublica finds similar trends in auto insurance: Across several states, auto insurers charge higher premiums in minority neighborhoods, relative to the actual cost of paying out liability claims. ProPublica also discovered a similar trend within the test prep industry: Princeton Review clients of Asian descent are almost twice as likely to be offered a higher price as their non-Asian counterparts (Angwin and Larson 2015).

Price discrimination is an especially pertinent risk online, where sellers can use IP addresses and browsing data to differentiate between consumers, and where dominant platforms like Amazon may be able to corner whole markets, thus allowing them to target prices individually without fear of being undercut by competition. Hannak et al. (2014) find instances where major retailers and travel websites show different results and prices depending on a customer's digital activity. Due to their private and algorithmic nature, these practices are difficult to regulate and are likely to proliferate as companies develop new ways to gather and analyze data. Crucially, the theoretical possibility of online alternatives has not proven sufficient to discipline behavior and prevent these exploitative practices.



MARKET POWER AND WORKERS: FEWER JOBS, LOWER WAGES, AND LESS POWER

Contemporary antitrust policy mostly ignores the plight of American workers and, as a result, has spelled fewer jobs, lower pay, and worse conditions. For much of the 20th century, American wages grew in accordance with the productivity of American workers. But around the start of the Reagan era, the growth of workers' wages and worker productivity began to diverge. Despite productivity having climbed nearly 75 percent from 1973 to 2016, wages only climbed by 12 percent. As consolidation, corporate profits, and top incomes skyrocketed, workers were left behind; the typical male worker made more in 1973 than he did in 2014. And while declining worker protections and union density explain a substantial portion of this stagnation, the runaway power of employers can be seen as the other side of the same coin.

Modern antitrust policy does little to protect—and in fact actively hurts—the standing of the American workforce. Ignoring the impact that market power and anti-competitive behavior has on workers is a feature, not a defect, of Chicago School antitrust policies. Today, in addition to merger-related job loss, we see ample evidence of just how effective these policies have been at weakening worker standing. Firms engage in predatory wage-suppressing collusion across industries with "no-poaching" agreements, and they have standardized anti-competitive contracts designed to strip workers of their mobility and bargaining power. These tactics, endorsed by permissive antitrust policy when it comes to non-price vertical restraints, are remaking the American labor market to resemble indentured servitude. Part of the solution must come from antitrust, specifically, a ban on such exploitative contract provisions.

"Monopsony"—the power a firm can wield over its suppliers, including suppliers of labor.

Structurally, powerful firms have abused poor antitrust enforcement in order to restructure labor markets to their own liking. Since the consumer welfare paradigm ignores upstream "monopsony"—the power a firm can wield over its suppliers, including suppliers of labor—firms outsource workers into upstream contractors, which they could more easily dominate thanks to the weakening of antitrust scrutiny for vertical contractual provisions, both price- and non-price. Outsourcing labor into subservient contractors not only enabled so-called "lead firms" to avoid meaningful negotiation, but has also turned wage setting into competitive bidding.



²³ Op. cit. Mishel et al. (2012).

²⁴ See Wessel (2015).

In this sub-section, we document how corporate consolidation and the rise of market power hurt the labor market. We discuss three primary mechanisms: First, we analyze the reduction of wages, employment, and worker power that has occurred as a result of general consolidation and decreased economic activity. Second, we outline a number of discrete anti-competitive strategies used by employers to stifle worker mobility and power. And finally, building on our description of predatory labor market practices, we outline the antitrust implications of corporate disaggregation and the so-called "fissured workplace," showing how this trend places workers at a systematic disadvantage.

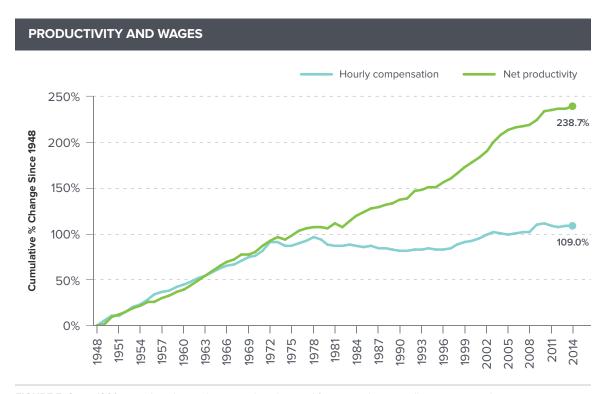


FIGURE 5 Since 1980, growth in the median wage has diverged from growth in overall economic productivity. Source: Mishel et al. (2012).

Fewer jobs, lower wages

As firms accrue market power and consolidate, employment and wages decrease through two mechanisms. First, firms in concentrated industries tend to lower production and raise prices, reducing the demand for labor. Second, less competition between firms means fewer options and less mobility for workers. Just like reducing consumers' options allows businesses to charge more, reducing workers' options allows businesses to pay less. Such power is referred to as monopsony—the labor market equivalent of monopoly power in



product markets. As Jason Furman and Peter Orszag explain in a 2015 paper, "firms are wage *setters* rather than wage *takers* in a less-than-perfectly-competitive marketplace." The same is true for working conditions: In a concentrated economy, workers are forced to take what they are given. Monopsonistic firms, then, are no less a threat to America's economic well-being than monopolistic ones.

Just like reducing consumers' options allows businesses to charge more, reducing workers' options allows businesses to pay less.

These theories are easy to square with the experiences of working Americans: In 2009, pharmaceutical giant Pfizer acquired Wyeth and announced it would cut 20,000 jobs worldwide; after combining in 2015, Kraft-Heinz announced plans to cut 5 percent of its workforce; most recently, rumors swirled about cuts to Whole Foods's workforce following its sale to Amazon. And while Chicago School advocates claim that consolidation brings cost savings for consumers—something we called into question in the previous section—the concurrent claim that such savings stimulate enough demand to create more jobs than they destroy is an even greater stretch.

While the impact of consolidation and competition policy on labor markets is a relatively new question for economists, evidence that consolidation is leading to fewer jobs is already mounting. Barkai (2016) shows that the largest decreases in the labor share of income—that is, the total fraction of private sector revenue paid to workers—have come in industries with the largest increases in concentration. This suggests that weak competition causes firms to cut jobs and reduce wages. Konczal and Steinbaum (2016) relate low wage growth to patterns of low job-to-job mobility, scarce outside job offers, and low geographic mobility. They argue that these trends are all indicative of weak labor demand and monopsony power.

The impact of such monopsony power can be every bit as economically damaging as monopoly power, and it is only due to the Chicago School's myopic focus on consumer welfare that policymakers and the public more broadly eschewed such considerations. In our current environment, the anti-competitive threats to labor markets have multiplied and intensified. Again, addressing the loss of worker standing will largely rely on rebuilding worker power, but allowing large firms to accrue and wield unlimited market power is a substantial contributor to existing labor market power disparities, which require a multifaceted solution.



²⁵ See Soper and Sherman (2017) on Amazon-Whole Foods; Roberts (2015) on Kraft-Heinz; and Associated Press (2009) on Pfizer-Wyeth.

MARKET POWER AND LABOR MARKET DISCRIMINATION

Similar monopsonistic wage-setting effects also help to explain pay gaps between demographic groups. Several studies document that wage gaps between employees of the same business can be explained by assuming that employers systematically pay workers less who they know are less likely to quit as a result—a practice called wage discrimination.²⁶ If systemically disadvantaged workers tend to be less sensitive to wages, then they may sort into industries that underpay all of their workers—possibly contributing to the concentration of women of color in the low-paying care industry, as discussed in Folbre and Smith (2017). Looking at

data from the Portuguese workforce,
Card et al. (2016) show that the combined
effects of within-firm wage discrimination
and between-firm sorting account for
about one-fifth of the gender pay gap.
In perfectly competitive labor markets—
where workers are paid according to the
value they create—such effects would
not exist.

Antitrust policies that examine the effects of monopsony would not only be good for all workers but would be best for society's most vulnerable workers.

Strategic attacks on worker standing

In addition to increased leverage over workers gained from consolidation, employers use other anti-competitive tactics to increase their labor market power. The tactics we describe here are expressly anti-competitive, intended to prevent positive competition among employers in order to reduce labor costs and suppress workers. Despite the seeming conflict with the core principles of antitrust policy, the brazen use of anti-competitive practices in labor markets has become increasingly widespread in the Chicago School era.

Non-compete contracts, for instance, prevent workers from joining competing firms until after they have left their employer and waited, presumably unemployed, for extended



²⁶ For more on wage discrimination, see Ransom and Oaxaca (2010) and Hotchkiss and Quispe-Agnoli (2008).

periods of time. While non-competes have some merit in protecting trade secrets and incentivizing investment in workers, the Treasury Department (2015) points out that they are used with startling frequency among low-income workers and those without a college degree, less than half of whom profess to possess trade secrets. Far from promoting innovation and investment, these agreements simply discourage workers from searching for new jobs, allowing their employers to pay less and demand more. Crucially, they are best understood as both a symptom and a cause of declining labor market mobility and worker power: A symptom because in an earlier era, employers would never have been able to get away with inserting such terms in employment agreements; and a cause because any worker who signs one has effectively voided their ability to attract a higher wage or better job in the industry of their choice.

The tactics we describe here are expressly anti-competitive, intended to prevent positive competition among employers in order to reduce labor costs and suppress workers.

Mandatory arbitration is another combination symptom and cause of low worker standing. Gupta and Khan (2017) discuss the severe impact of contractual clauses—which force workers to surrender their right to sue their employer, insisting instead that employees enter into confidential arbitration in the event of a dispute. Depriving workers of this core democratic right is a win for powerful corporations, who are able to keep misdeeds out of the media and away from the eyes and ears of other employees. Like non-compete clauses, mandatory arbitration is both a cause and an effect of labor market monopsony. Indeed, it would be difficult to think of a tactic more indicative of massive monopsony power than a firm forcing workers to surrender their legal rights as a condition of employment; as with non-compete agreements, such a clause would never have proliferated in a more pro-worker environment. Meanwhile, mandatory arbitration diminishes worker power by curtailing a worker's ability to push back against unfair labor practices in cases of abuse.

Labor market power and the fissured workplace

These more granular examples of anti-competitive labor market practices are only part of a broader pattern of firms leveraging their market power to circumvent labor protections and obtain a structural advantage over workers. In his landmark book, *The Fissured Workplace*, David Weil shows how powerful corporations shifted workers out of formal employment



and into alternate arrangements, such as subcontracting and franchising, in order to lessen their obligations to workers. By pushing low-pay workers into separate subcontracting firms, lead firms are able to wield their market power over other firms—rather than having to do so directly over workers, which could raise issues of liability under labor law.

Once pushed outside of the firm's organizational structure, workers receive a smaller share of the company's revenue and face steep barriers to bargain for more.

Whereas direct employees simply receive a regular salary, outsourced workers are forced to competitively bid against one another for every contract, driving costs down for the lead firm and wages for subcontracted workers. Once pushed outside of the firm's organizational structure, workers receive a smaller share of the company's revenue and face steep barriers to bargain for more. With less power and wealth than the firms that ultimately pay them, and with competing contractors threatening to under-cut them, outsourced workers are driven to the lowest common denominator for workplace standards. Indeed, Dube and Kaplan (2008) find that subcontracted security guards and janitors suffer a wage penalty of up to 8 and 24 percent, respectively, while a 2013 study by ProPublica found that temp workers—another large category of outsourced labor—were between 36 and 72 percent more likely to be injured on the job than their full-time counterparts. ²⁸

Weil's analysis shows how powerful lead firms place the onus of maintaining brand standards on franchisees and their employees—even as they squeeze them to reduce costs—often resulting in the low wages, dangerous work conditions, and labor law violations that are widely observed today. Outsourcing strategies are utilized up and down the supply chains of large companies from Walmart, which outsources its shipping and logistics operations, to Verizon, which outsources the sale and installation of broadband services. This system allows corporations to have their cake and eat it too; they can secure favorable contracts with suppliers while maintaining a high degree of control over an outsourced workforce. The National Labor Relations Board's (NLRB) recent ruling in *Browning-Ferris* supports this view, by asserting that firms contracting out workers from external partners may be considered joint employers. But until this view is more widely embodied in the economy, standards will continue to sink as powerful firms subjugate the workers of less powerful firms.



²⁷ Dube and Kaplan (2010) document the loss of wages for outsourced workers, while Kline at al. (2017) discuss rent sharing with workers

²⁸ See Grabell, Larson, and Pierce (2013).

All of these practices are predicated on the immense power of lead firms—from internationally recognized franchises like McDonald's, to retail powerhouses like Walmart—that are only able to get away with such broad wage- and condition-setting power because they each represent such large shares of their industries. Although the topic is still nascent among economists, it is not a stretch to say that lax antitrust protection is largely to blame for the fissuring practices of powerful firms. In fact, hard evidence linking anti-competitive behavior and poor labor market outcomes continues to emerge. In addition to non-compete and mandatory arbitration clauses, Krueger and Ashenfelter (2017) call attention to the negative wage and employment effects of "no-poaching" agreements through which franchises have agreed not to hire workers from rival businesses, in order to suppress wages and worker power. These agreements are plainly anti-competitive, created expressly to disrupt healthy competition in the labor market.

Hard evidence linking anti-competitive behavior and poor labor market outcomes continues to emerge.

The ill effects of weak antitrust and disaggregation are echoed in the gig economy: Workers who would once have operated either as employees or as truly independent businesses are now finding work in a quasi-independent role for centralized tech firms like Uber and TaskRabbit. Legally, they remain independent contractors without employee benefits; however, they lack the degree of control over their own operations that independent contractors are typically afforded. In fact, research shows these platforms exercise substantial control over participant behavior, disciplining workers for undesirable behavior and controlling the prices they set, despite their lack of employer status. Like the franchising and subcontracting firms in Weil's fissured workplace, these firms are leveraging market power, as well as proprietary technology, to have it both ways—controlling their labor supply without shouldering responsibility for it. Much has been said about misclassification of Uber drivers, but few have made the opposite point: If Uber drivers are not employees, then they are businesses, and thus Uber's price-setting amounts to a cartel, an organizational structure that is illegal under existing antitrust policy.²⁹

Addressing deficiencies in competition policy will be essential in combatting the structural abuse of workers. As we have stated, pro-big business deregulatory competition policies were sold on the explicit grounds that consumer effects were the only effects that should be considered with regard to competition policy. As long as the consumer came out ahead, in other words, any negative ramifications for small business, and especially for workers, could be tolerated. To anyone concerned with the overall health of the American economy, this begs a simple question, which the Chicago School is unprepared to answer: What good are consumer savings if consumers have no income to save?

²⁹ See Steinbaum (2016).



AMAZON'S ANTITRUST THREAT

Founded in 1994 as an online book retailer, Amazon has grown into the world's fourth most-valuable company, commanding a sprawling supply chain that offers everything from cloud computing services to audio books.30 Amazon's recent purchase of Whole Foods for \$14.3 billion reignited concerns about the company's immense size, and yet policymakers and journalists find it difficult to grasp the precise threat that the tech giant poses to competition.³¹ Through Amazon's example, we aim to illustrate how such powerful tech firms imperil healthy competition in ways that do not align with the Chicago School's conception of the role of competition policy.

In some respects, Amazon's devotion to growth and investment is laudable. Rather than passing what would be enormous profits from existing business lines back to its shareholders, the company product lines and technologies. The fact that Amazon employs over 1,000 people working on far-off Al technology, for example, is potentially good for the economy. This is to say nothing of the fact that Amazon is wildly popular with by its low prices, streamlined service and delivery system, and wide product offerings. Indeed, it has been evident on many occasions that not only do consumers value the company, but so do the competition authorities, for they have

used their regulatory and enforcement powers to put would-be competitors out of business. Despite investments in innovation and consumer favorability, the fact remains: Many aspects of Amazon's conduct are deeply problematic.

To see the threat posed by Amazon, it's important to understand how the company has risen to its current status. With nearly half of all e-commerce passing through the platform, Amazon's success is predicated by what economists call "network effects": The more vendors sell through Amazon, the more customers will want to use it; more vendors will be forced to sell through it. Even if a new platform were to offer a superior service—say, by taking a smaller cut of sales—no one would use it, simply because no one else was. And to compete with Amazon's unparalleled logistics network at this point would require an unimaginable upfront investment, one that Amazon could quickly make into a debacle by further cutting its prices and denying placement to suppliers who did business with the competitor.



³⁰ See Kiesnoski (2017)

For a good range of viewpoints on Amazon's monopoly threat, contrast the narrative offered in Khan (2017) and that by Department of Commerce Secretary Wilbur Ross embedded in Fernandez (2017). While observers like Khan have pioneered thoughtful arguments about Amazon's threat to competition, many in the mainstream media have failed to grasp the nuance and novelty of these points, falling back on outdated refrains. Also see the discussion in Washington Bytes (2017).

able, for instance, to keep 15 percent of every sale on its platform and to attract even reluctant vendors like Nike, who—after resisting to sell directly on Amazon due to copyright infringement that occurs through the sale of unlicensed products on their website—eventually caved in 2017.³² In another prominent example of Amazon flexing its power, the retailer suspended pre-orders of all books published by Hachette—including and secure better terms in its e-book agreements.33 The Institute for Local Self-Reliance (2016), among others, has underscored Amazon's use of predatory pricing—as is commonly understood, though impossible-to-prove under existing antitrust precedent—to eliminate competitors such as Zappos.com and Diapers.com. If established firms are powerless to resist Amazon's platform, the implications for small businesses selling on Amazon's Marketplace are enormous. Satirically attributed to Amazon CEO Jeff Bezos, a recent article from *The Onion* captured the problem well: "My advice to anyone starting a business is to remember that someday I

both runs a retail platform and sells goods, it not only competes with its own partners, that competition. Amazon preferences its own goods in search results, and, by collecting data on all of its transactions and customers, knows both buyers and sellers including the strategic use of its dominant cloud computing business, Amazon Web Services, to monitor profitable third-party vendors and consumer behavior that lets Amazon plan future acquisitions. It's wellestablished that Amazon uses this data to induce customers to make purchases; more alarming is that the company reorders options so as to extract more from customers whose past purchases and other characteristics indicate a willingness grocery store, where quantities are priced differently in order to entice different buyers (e.g., moms and dads opting for a gallon of milk for an additional \$1 instead of a quart), but a secretive and personalized form that ensures each consumer pays their maximum and that Amazon captures the difference.



³² See Statt (2017).

³³ See Streitfeld (2014).

³⁴ See Angwin and Mattu (2016).

MARKET POWER AND SOCIETY: SEGREGATION, CONTROL OF INFORMATION, AND POLITICAL MANIPULATION

Although market power's impact on workers, consumers, and businesses is severe, the narrow economic analyses can overlook the dangers it poses for society as a whole. Franklin D. Roosevelt recognized these threats in 1938 when he said:

"The first truth is that the liberty of a democracy is not safe if the people tolerate the growth of private power to a point where it becomes stronger than their democratic state itself. That, in its essence, is Fascism—ownership of Government by an individual, by a group, or by any other controlling private power." ³⁵

As relevant now as they were then, FDR's comments suggest that—beyond lost jobs, innovation, and businesses—concentrated market power poses a threat to our democracy and national sovereignty. Today, this threat manifests in a number of ways, ranging from the obvious, such as the consequences of corporate lobbying on democracy, to the more subtle, such as the massive power a small number of tech platforms now hold over the distribution of information. In this section, we discuss three broad societal threats posed by market power.

As relevant now as they were then, FDR's comments suggest that—beyond lost jobs, innovation, and businesses—concentrated market power poses a threat to our democracy and national sovereignty.

Geography and economic segregation

Increasingly, the wealthy and powerful have isolated themselves geographically and used their market power to prey on vulnerable areas and populations. The stark divide between urban and rural voting patterns in the 2016 election is just one recent example of how economic, social, and political divisions manifest geographically. Market power reinforces this new geography, threatening to calcify a class stratification that is anothem to American values.

Market power redistributes wealth and opportunity away from disadvantaged communities, be they poor, minority, or physically isolated. Wealthy Americans, clustered in wealthy suburbs and a few large cities, do not patronize local businesses, pay taxes, or otherwise



³⁵ From FDR's "Message to Congress on Curbing Monopolies" (1938).

engage with the economies of poor rural or urban communities.³⁶ Nonetheless, they are able to extract profits from them. A merger may result in windfall profits, but Wall Street and Silicon Valley will absorb that money as distant plants close and local economies across the country are decimated from the deal. In Hanover, Illinois, for example, the purchase of machine part manufacturer Invensys spelled the end of a 50-year-old factory, despite its 18 percent profit margin. The jobs were sent to Mexico, and the profits were shifted to Sun Capital in New York City.³⁷

Today, many hollowed out cities and towns remain trapped in a cycle of dependence on the very same corporate giants that eroded their communities.

Unbridled market power threatens locally owned businesses, which play an essential role in their communities, and which cannot be replaced by externally owned and managed corporations. Writing for *Washington Monthly*, Brian S. Feldman (2017) presents numerous examples of black-owned businesses that were consumed by larger competitors as a result of the relaxed antitrust regime. Not only had these businesses provided jobs and wealth to black workers, but they also served as pillars of the community in a time when many larger, white-owned businesses were either indifferent or actively hostile to the priorities of the black community. Black business owners in Selma, Alabama, for example, provided a physical foothold for civil rights activities in the 1960s. But without antitrust protections, these small businesses could not withstand the power of consolidating giants like Walmart, which used anti-competitive practices, including predatory pricing, to drive small competitors out. Today, many hollowed out cities and towns remain trapped in a cycle of dependence on the very same corporate giants that eroded their communities. Meanwhile, Bentonville, Arkansas—home of Walmart's Walton family—flourishes, with a plethora of privately funded parks and schools.³⁸

To make matters worse, weak local economies are self-reinforcing: Less economic activity means less tax revenue for schools, public transportation, and other basic needs, which, as shown by Chetty and Hendren (2017), results in less economic mobility for future generations. As geographic segregation becomes more entrenched, it has become easier and easier for firms to identify and prey on vulnerable populations. As Hwang et al. (2015) demonstrate, this predatory behavior has been prevalent in both home mortgages and car



³⁶ Reardon and Bischoff (2011) demonstrate the relationship between inequality and income segregation by geographic region, while Logan and Stults (2011) describe the slow pace of racial and economic desegregation.

³⁷ See Broughton (2015).

³⁸ See Walton Family Foundation (2016).

insurance, where providers charge high prices and provide restricted service in areas with large minority populations. If areas continue to segregate racially and economically, this behavior will only intensify.

In protecting their market share, entrenched incumbents not only reinforce social inequities but also actively prevent some of the least privileged Americans from accessing the modern economy.

Nowhere is the self-reinforcing mechanism of geographic segregation more evident than in the contemporary struggle to expand broadband coverage to underserved communities, both rural and urban. Many Internet service providers (ISPs) have avoided expanding service to such areas because doing so is less profitable. Through economic, political, and legal means, they have blocked efforts to provide multiple options directly. As Internet access becomes an effective (even necessary) prerequisite to entering the job market, underserved populations remain economically isolated and exploitable by powerful local monopolists. Market power compounds these issues: ISPs spend millions of dollars lobbying against the creation or expansion of proven municipal broadband networks (see introduction). In protecting their market share, entrenched incumbents not only reinforce social inequities but also actively prevent some of the least privileged Americans from accessing the modern economy.

Market power and the flow of information

Recognizing that access to unbiased information was no less essential to a democracy than water is to survival, and seeing the threat that industry consolidation and market power posed to that freedom of information, antitrust regulators once closely monitored the structure and content of newspapers and other media. Ownership of multiple competing news outlets was capped, and the Federal Communications Commission's (FCC) Fairness Doctrine required media outlets to fairly cover issues of national importance. In the wake of the Chicago School revolution, many of these regulations fell by the wayside with severe consequences for society and our democracy.³⁹

Just as the decline of antitrust protections altered the flow of firm revenue, it has also altered the flow of information—with grave ramifications for society. The weakening, and in some cases the repeal, of key protections have greatly contributed to the obstruction of



³⁹ Varney (2011) summarizes changes to antitrust regulation in the newspaper and media industry.

quality information that was so evident during the 2016 election. In print, radio, TV, and online, our sources of information have consolidated under openly biased ownership; media conglomerates have purchased local newsrooms en masse and geared them for profit over quality; online news is increasingly filtered by social media giants, with no eye for credibility of fairness, but with ultimate discretion as gatekeepers between readers and journalists; and television and radio stations held by politically biased media companies spew false information with little oversight.

As consumers of media, the information we receive is increasingly controlled by a small select group of very powerful corporations.

After decades of consolidation, local news—a key source of information for nearly half of all Americans, according to Pew Research (2017)—can scarcely be described as such. In 2016, the five largest local TV companies owned 37 percent of all stations. This pattern will likely worsen under Trump's FCC Chairman, Ajit Pai, who hinted that he would further relax merger scrutiny shortly after his appointment.⁴⁰ As consumers of media, the information we receive is increasingly controlled by a small select group of very powerful corporations. The decline of quality local reporting is problematic alone, but, as the Knight Commission (2009) points out, will be even more harmful if the loss contributes to the further erosion of community engagement, helping to worsen already substantial distrust of local institutions.

Gatekeepers like Google and Facebook threaten to end the era of democratized information that the Internet was supposed to create.

The erosion of decades-old antitrust protections has had serious ramifications for the freedom and quality of journalistic institutions, but online, there is doubt as to whether antitrust authorities will address emerging threats at all. Gatekeepers like Google and Facebook threaten to end the era of democratized information that the Internet was supposed to create. Every day, millions log on to Facebook to see which stories their friends are sharing—creating advertising revenue for Facebook but not for the organizations that created the content. Likewise, Google's "Incognito Window" feature enables users to avoid pay walls put in place by publishers to protect copyrighted material. This is to say nothing of outright discrimination within search results, which recently drew the ire of European authorities.⁴¹



⁴⁰ See de la Merced and Kang (2017).

⁴¹ In June of 2017, EU authorities fined Google \$2.7 billion for anti-competitive practices. See Balakrishnan (2017).

Platforms not only capture profits of journalism, they also control who sees what. Emily Bell, Director of the Tow Center for Digital Journalism, discussed this concern in a 2016 piece for the *Columbia Journalism Review*.

"In truth, we have little or no insight into how each company is sorting its news. If Facebook decides, for instance, that video stories will do better than text stories, we cannot know that unless they tell us or unless we observe it. This is an unregulated field. There is no transparency into the internal working of these systems... We are handing the controls of important parts of our public and private lives to a very small number of people, who are unelected and unaccountable."

Examples of the problems created by this centralized, unaccountable control of information are everywhere: During the 2016 election, the proliferation of fake news articles on Facebook and automated "bots" on Twitter interfered with the honest and free exchange of information. Unregulated "news" sharing on Facebook and Twitter popularized numerous conspiracy theories. And since Facebook has no obligation to provide a neutral platform, electoral campaigns, interest groups, and repositories of outside "dark money" are free to spend whatever it takes to not only get their content in front of targeted users but also prevent the opposition's content from reaching its intended audience. Meanwhile, Woolley and Guilbeault (2017) show how Twitter bots sought to obstruct social media messaging of supporters on both sides. When it comes to something as essential for democracy as the free flow of accurate information, the power is simply too great to be left—unregulated—in the hands of a few powerful corporations.

By keeping revenue from content creators, by lending a voice to biased and false news outlets, and by artificially amplifying chosen content, powerful platforms will reduce the amount of legitimate news produced (and shared) and will instead encourage the production of whatever content their opaque algorithms favor. Rather than democratizing the spread of information, many online platforms have consolidated this process for private gain. This is a new question for antitrust authorities, and one that must be addressed soon.

Compromising the political system

The influence of large campaign donors and highly paid corporate lobbyists on American politics is no secret, but bears repeating: Individual corporations and industry trade associations—not to mention a host of more secretive "dark money" pools—leverage their wealth to exert enormous influence on legislators, executives, and other government officials at all levels. This influence amplifies the voice of the powerful and, as Jacob Hacker (2011)



⁴² The concept of "dark money" is best described by Jane Mayer in her 2016 book of the same title.

discusses in *Winner-Take-All Politics*, was key in bringing about the Chicago School revolution in antitrust policy in the first place. Less discussed than the influence of money in politics is how economic policy reinforces the phenomenon. By creating larger firms and enabling them to generate excess profits, consolidation increases the number of businesses with the means necessary to invest in serious lobbying efforts, including the number of firms whose business models depend on doing so. Rather than attempting to satisfy broad constituencies of disparate interests, politicians are tempted to cater to a select few: those who can afford to both amplify their voices and offer campaign funds in exchange for political favors.

Less discussed than the influence of money in politics is how economic policy reinforces the phenomenon.

Close ties to large corporations not only help politicians fundraise, but also let them access the lucrative "revolving door" to high-paying jobs in the private sector throughout or after a political career. Politicians, then, have a considerable incentive to demonstrate their usefulness to the large corporations that hold power over their political and professional well-being. The same goes for appointed public officials and bureaucrats. By enhancing the ability of large corporations to win, not by innovating or improving, but by buying government favoritism, a compromised political system entrenches the concentration of corporate market power. That is why, at the dawn of an earlier revolution in antitrust, Louis Brandeis noted that we may have concentrations of wealth, or we may have democracy, but not both.

By enhancing the ability of large corporations to win, not by innovating or improving, but by buying government favoritism, a compromised political system entrenches the concentration of corporate market power.

Indeed, today's mega-corporations are so large and so powerful that individual politicians may feel powerless to oppose them. Even those with enough integrity or personal wealth to avoid direct dependence on corporate funders still face pressure to conform to the views of their caucuses. And voters are watching—it's hardly surprising that, according to Gallup polls, the percentage of Americans reporting a "great deal" or "fair amount" of confidence in the federal government has hit record lows in recent years. Ultimately, the problem of money in politics—and its interplay with market power—threatens to erode the possibility of effective government, both directly and through the trust of its citizens.



⁴³ See Gallup's 2016 "Trust in Government" poll.



SECTION FOUR

Restoring Competition Policy to Build Healthy Markets and Inclusive Growth

This report has explained the theoretical threat of concentrated market power and demonstrated its real world consequences: Instead of creating shared value, powerful businesses—specifically their owners and executives—extract wealth from workers, consumers, disadvantaged competitors, and entire communities. This section describes the role that competition policy can play in realigning incentives and reshaping markets to create a level playing field and an equitable, inclusive economy.

Competition policy is the set of laws and institutions that aim to realign private and public interests by changing the structure of markets and governing the actions taken within them. It can be understood as serving three distinct roles:

- (1) To regulate market structure and prevent the aggregation of private power, primarily by blocking mergers that concentrate too much power and breaking up pre-existing, overly powerful firms
- **(2) To curtail anti-competitive behavior** by banning firms from and punishing firms for engaging in extractive practices—like colluding to raise prices or deceiving consumers—including practices that may persist even without full monopolization
- (3) To regulate "natural monopolies" as utilities and intervene when competition fails, either through more comprehensive regulation or the provision of public options— especially in key natural monopolies like telecommunications and energy with high fixed costs of doing business, where fierce private competition tends to give rise to boom-and-bust cycles that impair the steady provision of necessary services

To limit the consolidation of power by regulating market structure, authorities should:

- Revise merger guidelines to scrutinize the potential for anti-competitive behavior throughout supply chains, not merely targeting consumers
- Closely examine negative effects of vertical integration and vertical restraints that are likely to arise from proposed and consummated mergers



- Use Section 2 of the Sherman Act to break up existing monopolies and firms whose structure and business models threaten other market participants and the economy more broadly
- Scrutinize the many ways in which ownership and management have consolidated, including the common ownership of multiple firms in an industry by the same major shareholders
- Implement intellectual property (IP) reform to encourage entrepreneurship and weaken protections for incumbents, including by compelling free licensing of patent portfolios

In many instances, market power arises from the structure of a given market—that is, the number and size of firms and the ties between them. Consolidated markets lack competition, often allowing firms to charge high prices, offer bad service, and pay low wages. Such market power can therefore be addressed by preventing consolidation, either by limiting mergers between competitors or by breaking up excessively large firms. Merger review has always been a key facet of competition policy, but it is much less stringent today than it was prior to the 1980s.

Under existing merger guidelines, antitrust agencies assess mergers primarily on their expected short-run effect on price and output. But—as we have discussed—this narrow approach overlooks important effects on innovation, wages, jobs, and supply chains; even its track record on price effects is mixed at best. Congress should enact antitrust legislation that would require agencies to revise existing merger guidelines to consider the merging parties' ability to engage in anti-competitive behavior throughout the supply chain to look for ways it may harm any and all market participants, not just consumers. That would enable the Department of Justice (DOJ) and the Federal Trade Commission (FTC) to scrutinize vertical consolidation as well as a merger's effects on innovation, labor markets, data privacy, and discrimination by race, gender, and geography. The agencies should also consider exercising their authority under Section 2 of the Sherman Act to break up existing firms whose structure and business models render them impossible to regulate in accord with the new standard. Finally, an increase in the antitrust resources of regulatory agencies would complement this agenda.

In some cases, market power arises not through consolidation but through intellectual property rights (IPRs)—exclusive, government-enforced rights to profit from an innovation. While IPRs are intended to incentivize investment in R&D, current laws may actually be hindering innovation by slowing the spread of existing knowledge and hindering knockon discoveries—new ideas built on previous innovations. Policymakers should consider weakening such protections; doing so can promote growth and simultaneously lower prices and expand access to goods, especially medicines.⁴⁵



⁴⁴ See Abernathy et al. (2016).

⁴⁵ See Stiglitz (2015).

While policies to prevent and reverse consolidation and restrict anti-competitive behavior at the firm level are necessary to maintain competition, another aspect of our market power crisis is the combination of management with shareholders into one corporate interest, a relationship that is then used to profit at the expense of other stakeholders. Examples of this broad phenomenon can be seen in the rise of private equity, the lifting of regulations on corporate stock buybacks, the use of dual classes of shareholders, the decline in initial public offerings (IPOs) and the reduction in the share of the economy accounted for by traditional publicly traded corporations, and the so-called "common ownership" of multiple firms in an industry by the same small set of large institutional investors.

This issue is of sufficient concern to warrant an investigation by a temporary panel with representatives from a number of government agencies with access to the data that are necessary to understand the potential threat of shareholder-management consolidation. These agencies include the IRS, the U.S. Census, the Bureau of Economic Analysis, and the Bureau of Labor Statistics, as well as the competition authorities at the FTC and DOJ. The core issue to investigate is whether the various mechanisms that shareholders have for influencing firm behavior and benefiting from firm profits are used for their private benefit (and at other stakeholders' expense) versus for the public good. Such a panel should examine corporate structures, such a private equity, tiered shareholding, private partnerships, and common ownership, as well as behavior like labor outsourcing, stock buybacks, and dividend recapitalization, that arguably serve to benefit shareholders at the expense of everyone else.

To curtail anti-competitive behaviors, policy must:

- Increase enforcement at the state and federal level
- Increase funding of federal and state competition authorities
- Increase punishments for anti-competitive behavior
- Expand the scope of antitrust action at the state level
- Use antitrust law against the fissured workplace
- Challenge the ability of tech platforms to extract rents from their supply chain
- Scrutinize price discrimination enabled by "Big Data"
- Protect low-skill workers from non-compete and anti-poaching clauses
- Reform the Federal Arbitration Act



While preventing the accumulation of market power through large-scale consolidation is important, this tactic does not guarantee that firms will always compete fairly. Even in less concentrated markets, firms may seek an advantage through anti-competitive tactics, especially where vertical integration enables them to exploit a strategic position in one market for advantage in another. Businesses can collude to charge more, take advantage of workers with contracts they don't understand and cannot litigate, and maneuver consumers into disadvantageous terms of service or discriminate among them using data consumers do not realize has been harvested from them. And although many of these tactics are illegal, weak enforcement and judicial precedents establishing impossibly high burdens of proof and excessively narrow theories about how conduct can be anti-competitive encourage abuse among firms who see no threat of repercussion. To deter anti-competitive practices and realign market incentives with the public interest, we advocate strengthening the enforcement of existing antitrust law and broadening the application of that law in key areas, especially as it relates to the emergence of new and unregulated technology.

Ultimately, anti-competitive practices will only be curbed when firms operate on the assumption that nefarious behavior will be discovered and duly punished. Therefore, more prosecutorial action against anti-competitive behavior and harsher penalties are necessary to discourage firms from abusing power. Larger regulatory budgets for the DOJ Antitrust Division and for enforcement at the FTC will help achieve this goal by providing regulators with more staff and resources to carry out investigations. Most importantly, the burden on plaintiffs for winning an anti-competitive conduct case is far too high.

At the federal level, of course, neither more aggressive prosecution of private firms nor a significant increase in regulatory funding seems likely in the current political climate, so we also propose expanded activity and funding of these activities at the state level. Generally, state attorneys have a well-established tradition of antitrust action, and in many cases, are unburdened by the ideological baggage that plagues federal agencies and judicial precedent. These activities should be expanded wherever possible.

While poor enforcement has permitted some anti-competitive behaviors, narrow court interpretations have pushed others out from under regulation entirely. For example, predatory pricing has long been a violation of antitrust statutes, but under current jurisprudence, it can only be recognized when the defendant is found to have both intent to remove competition and the ability to recoup losses incurred by selling below cost. This extremely high legal hurdle has prevented the prosecution of predatory pricing, despite evident instances of it, such as Amazon's behavior towards Diapers.com.⁴⁶



⁴⁶ See LaVecchia and Mitchell (2016).

The crucial issue for prosecuting conduct cases under Section 2 of the Sherman Act is the requirement to prove monopoly power, generally by a preponderant share of the relevant market. This means that conduct in which powerful companies use their domination of one market to extract concessions in another is very hard to prove. For example, Google has used its dominance in the search market to redirect advertising revenues from content companies back to itself. Those companies have to make their content available to Google for fear of losing all Internet traffic, which then means that Google is the market participant earning the ad revenue. Google claims that it is not a monopolist in search—"competition is just a click away," as the saying goes—and yet the observed behavior of users of its mobile platform and the restrictions that Google places on third-party applications all but guarantee the tech giant will control the flow of information. (And hence reaps the reward therefrom.)

Finally, the rise of digital platforms has revived concerns about the abuse of vertical consolidation and price discrimination—issues the Chicago School had rendered largely dormant. Because they not only host sellers but also compete with them directly, platforms like Google and Amazon have ample opportunity to profit by placing other firms at a disadvantage. The European Commission recently fined Google 2.4 billion euros for prioritizing its own comparison-shopping service over that of competitors. Regulators must either bar firms from competing on their own platforms—in effect, enact a ban on vertical integration for platform companies—or at the very least closely regulate such behavior by imposing neutrality on crucial Internet-era utilities. A similar principle applies to platforms like Uber who have used their power to extract gains from workers. Since Uber drivers are technically independent businesses, the competition authorities should regard Uber's price-setting as price-fixing.

Finally, access to data has enabled a new wave of advanced price discrimination through which platforms are able to charge different customers different amounts based on past behavior and other factors. Antitrust authorities must pursue vigorous enforcement of existing price discrimination laws.

To establish public utility regulation of essential industries and "natural monopolies," policymakers should:

- Explore public utility regulation to rein in Google, Facebook, Amazon
- Promote expansion of municipal broadband networks
- Consider creation of public options for financial services

Private markets are not always able to sustain competition. This can happen when there are high fixed costs to production—as with utilities or airlines—or when firms experience



"network effects" that make it more useful to have one large platform than several small competitors—as with Facebook or Amazon. In these instances, it may be impossible to generate competition by breaking up large corporations horizontally; at the same time, outright bans on abusive practices may be too blunt an instrument to properly regulate firms' behavior. Such situations call for further intervention, either through more fine-tuned "public utility" regulation or through the introduction of public market players.

Historically, public utility regulation has been used to ensure that essential goods and services are provided accessibly and at fair prices. In domains such as telecommunications, where network effects prevented robust competition, the imposition of a "common carrier" status required providers to serve all comers at reasonable rates and without unjust discrimination. More recently, the FCC harkened back to these principles in the context of net neutrality, preventing Internet service providers from exercising bias based on the content (such as a competitor's service) they are transmitting. Looking forward, policymakers should consider a public utility approach to regulating prominent technology firms. As gatekeepers to essential economic and social goods—Google and Facebook to news and information, and Amazon to a vast logistics and shipping architecture—these businesses threaten to limit or influence participation in markets and civil society. Regulatory firewalls could prevent such platforms from privileging their own content (say, in search results), thus maintaining a level playing field for smaller competitors. Further oversight could require firms to respect the interests of the users whose data they collect and sell and could guard against discriminatory treatment, including as an "unintended" consequence of revenue-optimizing algorithms.47,48

In some instances, barriers to entry prevent competition in a market, even though there is no inherent advantage to consolidation. Here, the government can intervene by simply becoming a competitor—by offering a so-called public option. This approach is not a new one: The Tennessee Valley Authority's provision of rural electrification dates back to the New Deal. Public options have three main advantages: First, they offer an additional, straightforward option to consumers at reasonable rates and without discrimination. Second, they increase market competition, encouraging pre-existing businesses to lower prices and offer better service. Third, they can expand subsidized access to consumers unable to afford essential goods at market prices. Policymakers should promote this approach in key areas, such as municipal broadband and banking.



⁴⁷ See Rahman (2017).

⁴⁸ Op. cit. Abernathy et al. (2016).

Conclusion

For roughly 40 years, the American economy has been remade to serve the powerful and the wealthy, with no regard for everyday consumers, workers, or the health of our society. Today, we see just how effectively policymakers and regulators have championed the needs of the few over those of the many. Ironically, the policies that helped get us here were sold on the notion that they would deliver the most good to the most people—the precise opposite of what ultimately occurred. Furthermore, Chicago School policies were predicated on the idea that providing for the public good is simple. This was a convenient view for policymakers and other parties whose key interest amounted to diminishing the role that government plays in administering society. But Chicago School ideology was also, as ample evidence shows, precisely incorrect.

Robust competition is every bit as important for economic well-being as scions of the Chicago School suggested, but this school of thought presented false and misleading ideas about how to best achieve it. Here, we have combined emerging research with historical narrative aimed at explaining how antitrust policy has been a key contributor to an increasingly top-heavy economy. In the simplest way possible, we aim to show that competition is as essential as it is delicate, and that economies work best when power is evenly distributed among market actors. In this regard, competition policy is an essential tool.



Bibliography

- Abernathy, Nell, Mike Konczal, and Kathryn Milani. 2016. "Untamed: How To Check Corporate, Financial, and Monopoly Power." New York, NY: The Roosevelt Institute. Retrieved June 4, 2017 (http://rooseveltinstitute.org/untamed-how-check-corporate-financial-and-monopoly-power/).
- American Customer Satisfaction Index. December 2017. *National Economic Indicator, National, Sector, and Industry Results*. Retrieved December 3, 2017 (http://www.theacsi.org/national-economic-indicator/national-sector-and-industry-results).
- American Society of Addiction Medicine. 2016. "Opioid Addiction 2016 Facts & Figures." Rockville, MD: American Society of Addiction Medicine. Retrieved October 2, 2017 (https://www.asam.org/docs/default-source/advocacy/opioid-addiction-disease-facts-figures.pdf).
- Angwin, Julia and Jeff Larson. 2015. "The Tiger Mom Tax: Asians Are Nearly Twice as Likely to Get a Higher Price from Princeton Review." New York, NY: ProPublica. Retrieved January 20, 2017 (https://www.propublica.org/article/asians-nearly-twice-as-likely-to-get-higher-price-from-princeton-review).
- Angwin, Julia, Jeff Larson, Lauren Kirchner, and Surya Mattu. 2017. "Minority Neighborhoods Pay Higher Car Insurance Premiums Than White Areas With the Same Risk." New York, NY: ProPublica. Retrieved June 4, 2017 (https://www.propublica.org/article/minority-neighborhoods-higher-car-insurance-premiums-white-areas-same-risk).
- Angwin, Julia and Surya Mattu. 2016. "Amazon Says It Puts Customers First. But Its Pricing Algorithm Doesn't." New York, NY: ProPublica. Retrieved June 4, 2017 (https://www.propublica.org/article/amazon-says-it-puts-customers-first-but-its-pricing-algorithm-doesnt).
- Associated Press. 2009. "Pfizer to Buy Wyeth for \$68B; Cut 8,000 Jobs." *New York Post*. Retrieved June 4, 2017 (http://nypost.com/2009/01/26/pfizer-to-buy-wyeth-for-68b-cut-8000-jobs/).
- Azar, José, Sahil Raina, and Martin C. Schmalz. 2016. "Ultimate Ownership and Bank Competition." *SSRN Electronic Journal*. Retrieved April 20, 2017 (https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2710252).
- Azar, José, Martin C. Schmalz, and Isabel Tecu. 2017. "Anti-Competitive Effects or Common Ownership." *Ross School of Business Paper No. 1235*. Retrieved April 20, 2017 (https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2427345).
- Bacon, John. 2017. "United Airlines passenger dragged off flight suffered concussion, broken nose." *USA Today*. Retrieved October 3, 2017 (https://www.usatoday.com/story/news/nation/2017/04/13/united-airlines-david-dao-family-press-conference/100409492/).
- Baker, Jonathan B. 2015. "Take the Error Out of 'Error Cost' Analysis: What's Wrong with Antitrust's Right." Antitrust Law Journal 80(1). Retrieved January 17, 2018 (https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2333736).
- Balakrishnan, Anita. 2017. "Google Will Separate Its Shopping Business From Search to Try and Avoid More European Fines." *CNBC*. Retrieved December 3, 2017 (https://www.cnbc.com/2017/09/26/google-to-spin-out-shopping-service-report-says.html).
- Barkai, Simcha. 2017. "Declining Labor and Capital Shares." Retrieved April 20, 2017 (https://www.gsb.stanford.edu/sites/gsb/files/jmp_simcha-barkai.pdf)



- Bayer, Patrick, Fernando Ferreira, and Stephen L. Ross. 2014. "Race, Ethnicity, and High-Cost Mortgage Lending." (NBER Working Paper No. 20762). Cambridge, MA: National Bureau of Economic Research. Retrieved June 4, 2017 (http://www.nber.org/papers/w20762).
- Bell, Emily. 2016. "Facebook is Eating the World." *Columbia Journalism Review*. Retrieved April 20, 2017 (https://www.cjr.org/analysis/facebook_and_media.php).
- Berman, Elizabeth Popp. Forthcoming. "How experts can, and can't, change policy: Economics, antitrust, and the linked evolution of the academic and policy fields." University at Albany, SUNY.
- Bivens, Josh and Lawrence Mishel. 2015. "Understanding the Historic Divergence Between Productivity and a Typical Worker's Pay." Washington, DC: Economic Policy Institute. Retrieved June 4, 2017 (http://www.epi.org/publication/understanding-the-historic-divergence-between-productivity-and-a-typical-workers-pay-why-it-matters-and-why-its-real/).
- Bluth, Rachel. 2016. "Faced with Unaffordable Drug Prices, Tens of Millions Buy Medicine Outside U.S." Kaiser Health News. Retrieved June 4, 2017 (http://khn.org/news/faced-with-unaffordable-drug-prices-tens-of-millions-buy-medicine-outside-u-s/).
- Brodkin, Jon. 2016. "'AT&T is the Villain' in City Broadband Fight, Republican Lawmaker Says," February 4, *ARS Technica*. Retrieved August 20, 2017 (https://arstechnica.com/tech-policy/2016/02/att-is-the-villain-in-city-broadband-fight-republican-lawmaker-says/).
- Broughton, Chad. 2015. "Just Another Factory Closing," September 23, *The Atlantic*. Retrieved August 21, 2017 (https://www.theatlantic.com/business/archive/2015/09/factory-closure-private-equity/406264/).
- Brun, Lídia and Ignacio González. 2017. "Tobin's Q and Inequality." Retrieved January 18, 2018 (Available at SSRN: https://ssrn.com/abstract=3069980).
- Card, David, Ana Rute Cardoso, Joerg Heining, and Patrick Kline. "Firms and Labor Market Inequality: Evidence and Some Theory." (NBER Working Paper No. 22850). Cambridge, MA: National Bureau of Economic Research. Retrieved April 20, 2017 (http://davidcard.berkeley.edu/papers/CCHK-march-2016.pdf).
- Card, David, Ana Rute Cardoso, and Patrick Kline. 2015. "Bargaining, Sort, and Gender Wage Gap: Quantifying the Impact of Firms on the Relative Pay of Woman." (NBER Working Paper No. 21403). Retrieved June 4, 2017 (http://www.nber.org/papers/w21403).
- Chetty, Raj and Nathaniel Hendren. 2016. "The Impacts of Neighborhoods on Intergenerational Mobility II: County-Level Estimates." (NBER Working Paper No. 23002). Retrieved June 4, 2017 (http://www.nber.org/papers/w23002).
- Cohen, Robin A. and Maria A. Villarroel. 2013. "Strategies Used by Adults to Reduce Their Prescription Drug Costs: United States, 2013." (NCHS Data Brief No. 184, January 2015). National Center for Health Statistics. Retrieved June 4, 2017 (https://www.cdc.gov/nchs/data/databriefs/db184.htm).
- Consumer Reports. 2016. "Is There a Cure for High Drug Prices?" Consumer Reports. Retrieved June 6, 2017 (https://www.consumerreports.org/drugs/cure-for-high-drug-prices/).
- Danzon, Patricia M. 2006. "Economics of the Pharmaceutical Industry." (NBER Research Summary).

 Cambridge, MA: National Bureau of Economic Research. Retrieved December 3, 2017 (http://www.nber.org/reporter/fall06/danzon.html).
- de la Merced, Michael and Cecilia Kang. 2017. "TV Station Owners Rush to Seize on Relaxed F.C.C. Rules," May 1, *The New York Times*. Retrieved June 20, 2017 (https://www.nytimes.com/2017/05/01/business/dealbook/tv-station-owners-rush-to-seize-on-relaxed-fcc-rules.html).



- De Loecker, Jan and Jan Eeckhout. 2017. "The Rise of Market Power and the Macroeconomic Implications." Retrieved April 20, 2017 (http://www.janeeckhout.com/wp-content/uploads/RMP.pdf).
- del Rey, Jason. 2017. "Why Amazon's Explanation for Shutting Down Diapers.com and Quidsi Stunned Employees." April 2, *Recode*. Retrieved April 20, 2017 (https://www.recode.net/2017/4/2/15153844/ amazon-quidsi-shutdown-explanation-profits).
- Decker, Ryan A., John Haltiwanger, Ron S. Jarmin, and Javier Miranda. 2016. "Declining Business Dynamism: Implications for Productivity." (Hutchins Center Working Paper #23). Washington, DC: The Brookings Institution. Retrieved June 4, 2017 (https://www.brookings.edu/research/declining-business-dynamism-implications-for-productivity/).
- Dreier, Peter. 2016. "A Century Ago, Louis Brandeis Beat Big Business and Anti-Semites, and Revitalized American Democracy," January 28, *Huffington Post*. Retrieved June 4, 2017 (http://www.huffingtonpost.com/peter-dreier/a-century-ago-louis-brand_b_9095998.html).
- Dube, Arindrajit and Ethan Kaplan. 2010. "Does Outsourcing Reduce Wages in the Low-Wage Service Occupations? Evidence from Janitors and Guards." *Cornell University ILR Review 63*(2):287-306.
- Eisinger, Jesse and Justin Elliott. 2016. "These Professors Make More Than a Thousand Bucks an Hour Peddling Mega-Mergers," New York, NY: ProPublica. Retrieved June 4, 2017 (https://www.propublica.org/article/these-professors-make-more-than-thousand-bucks-hour-peddling-mega-mergers).
- Edison Research. 2016. "Marketplace Survey Wave 4 Banner 1 October 2016." Available at: https://cms.marketplace.org/sites/default/files/anxiety-index-data.pdf.
- Federal Reserve Bank of St. Louis. 2017. Corporate Profits After Tax (without IVA and CCAdj)/Gross Domestic Product. (BEA Account Code: A055RC1). Available at: https://fred.stlouisfed.org/graph/?g=1Pik/.
- Feldman, Brian S. 2017. "The Decline of Black Businesses," March/April/May, Washington Monthly. Retrieved August 8, 2017 (http://washingtonmonthly.com/magazine/marchaprilmay-2017/the-decline-of-black-business/).
- Fernandez, Henry. 2017. "Amazon-Whole Foods deal is not an antitrust issue, Wilbur Ross says," June 22, Fox Business. Retrieved July 7, 2017 (http://www.foxbusiness.com/politics/2017/06/22/amazon-whole-foods-deal-is-not-antitrust-issue-wilbur-ross-says.html).
- Folbre, Nancy and Kristin Smith. 2017. "The Wages of Care: Bargaining Power, Earnings, and Inequality." Washington, DC: Washington Center for Equitable Growth. Retrieved June 4, 2017 (http://cdn.equitablegrowth.org/wp-content/uploads/2017/02/13154616/021417-WP-the-wages-of-care.pdf).
- Furman, Jason. 2016. "Beyond Antitrust: The Role of Competition Policy in Promoting Inclusive Growth".

 Presented at the Searle Center Conference on Antitrust Economics and Competition Policy, Chicago, IL,
 September 16, 2016. Retrieved April 20, 2017 (https://obamawhitehouse.archives.gov/sites/default/files/page/files/20160916_searle_conference_competition_furman_cea.pdf).
- Furman, Jason and Peter Orszag. 2015. "A Firm-Level Perspective on the Role of Rents in the Rise in Inequality." Presented at "A Just Society" Centennial Event in Honor of Joseph Stiglitz, Columbia University, New York, NY, October 16, 2015. Retrieved April 20, 2017 (https://gabriel-zucman.eu/files/teaching/FurmanOrszag15.pdf).
- Gallup. 2016. "Trust in Government." Retrieved April 20, 2017 (http://www.gallup.com/poll/5392/trust-government.aspx).
- González, Ignacio and Trivín, Pedro (2017) The Global Rise of Asset Prices and the Decline of the Labor Share. Accessed January 18, 2018 (Available at SSRN: https://ssrn.com/abstract=2964329).



- Gorwa, Robert. 2017. "Computational Propaganda in the United States of America: Manufacturing Consensus Online." Computational Propaganda Project, Oxford Internet Institute, Oxford University. Retrieved June 4, 2017 (http://comprop.oii.ox.ac.uk/2017/06/19/computational-propaganda-in-the-united-states-of-america-manufacturing-consensus-online/).
- Grabell, Michael, Jeff Larson, and Olga Pierce. 2013. "Temporary Work, Lasting Harm," December 18, *ProPublica*. Retrieved December 3, 2017 (https://www.propublica.org/article/temporary-work-lasting-harm).
- Greenhouse, Steven. 2014. "Noncompete Clauses Increasingly Pop Up in Array of Jobs," June 8, *The New York Times*. Retrieved June 4, 2017 (https://www.nytimes.com/2014/06/09/business/noncompete-clauses-increasingly-pop-up-in-array-of-jobs.html?_r=1&mtrref=www.slate.com&assetType=nyt_now).
- Grullon, Gustavo, Yelena Larkin, and Roni Michaely. 2016. "Are U.S. Industries Becoming More Concentrated." Retrieved June 4, 2017 (http://www.cicfconf.org/sites/default/files/paper_388.pdf). Also available at SSRN.
- Gupta, Deepak and Lina Khan. "Arbitration as Wealth Transfer." *Yale Law & Policy Review(35)*:2. Retrieved October 8, 2017 (https://ylpr.yale.edu/arbitration-wealth-transfer).
- Gutiérrez, Germán and Thomas Philippon. 2016. "Investment-less Growth: An Empirical Investigation." (NBER Working Paper No. 22897). Cambridge, MA: National Bureau of Economic Research. Retrieved June 4, 2017 (http://www.nber.org/papers/w22897).
- Gutiérrez, Germám and Thomas Philippon. 2017. "Declining Competition and Investment in the U.S." (NBER Working Paper No. 23583). Cambridge, MA: National Bureau of Economic Research. Retrieved April 20, 2017 (http://www.nber.org/papers/w23583).
- Hacker, Jacob S. and Paul Pierson. 2011. Winner-Take-All Politics: How Washington Made the Rich Richer--And Turned Its Back on the Middle Class. New York, NY: Simon & Schuster.
- Haltiwanger, John, Ron S. Jarmin, and Javier Miranda. 2010. "Who Creates Jobs? Small vs. Large vs. Young." (NBER Working Paper No. 16300). Cambridge, MA: National Bureau of Economic Research. Retrieved April 20, 2017 (http://www.nber.org/papers/w16300).
- Hannak, Aniko, Gary Stoeller, David Lazer, Alan Mislove, and Christo Wilson. 2014. "Measuring Price Discrimination and Steering on E-Commerse Web Sites." Presented at the 2014 Conference on Internet Measurement, Vancouver, BC, November 5, 2014. Retrieved June 4, 2017 (http://dl.acm.org/citation.cfm?id=2663744).
- Haucup, Justus and Joel Stiebale. 2016. "How Mergers Affect Innovation: Theory and Evidence From the Pharmaceutical Industry." (Dusseldorf Institute for Competition Economics Discussion Paper No. 218). Retrieved June 4, 2017 (http://www.dice.hhu.de/fileadmin/redaktion/Fakultaeten/ Wirtschaftswissenschaftliche_Fakultaet/DICE/Discussion_Paper/218_Haucap_Stiebale.pdf).
- Hotchkiss, Julie and Myriam Quispe-Agnoli. 2008. *The Labor Market Experience and Impact of Undocumented Workers*. (Working Paper 2008-7c). Federal Reserve Bank of Atlanta. Retrieved June 4, 2017 (https://www.frbatlanta.org/research/publications/wp/2008/07.aspx).
- Hwang, Jackelyn, Michael Hankinson, and Kreg Steven Brown. 2015. "Racial and Spatial Targeting: Segregation and Subprime Lending within and across Metropolitan Areas." Social Forces 93(3):1081-1108.
- Institute for Mergers, Acquisitions & Alliances. Nd. "United States M&A Statistics." IMAA. Retrieved June 4, 2017 (https://imaa-institute.org/m-and-a-us-united-states/).
- Jones, Daniel Stedman. 2012. *Masters of the Universe: Hayek, Friedman, and the Birth of Neoliberal Politics*. Princeton, NJ: Princeton University Press.



- Khan, Lina M. 2017. "Amazon Bites Off Even More Monopoly Power," June 21, *The New York Times*. Retrieved June 4, 2017 (https://www.nytimes.com/2017/06/21/opinion/amazon-whole-foods-jeff-bezos.html).
- Kiesnoski, Kenneth. 2017. "The Top 10 US Companies by Market Capitalization." March 8, *CNBC*. Retrieved June 4, 2017 (https://www.cnbc.com/2017/03/08/the-top-10-us-companies-by-market-capitalization. html?slide=1#slide=1.
- Kline, Patrick, Neviana Petkova, Heidi Williams, and Owen Zidar. 2017. "Who Profits from Patents? Rent-Sharing at Innovative Firms." (IRLE Working Paper #107-17). Berekeley, CA: Institute for Research on Labor and Employment. Retrieved October 3, 2017 (http://irle.berkeley.edu/files/2017/Who-Profits-from-Patents.pdf).
- Knight Commission on the Information Needs of Communities in a Democracy. "Informing Communities: Sustaining Democracy in the Digital Age." Washington, DC: The Aspen Institute. Retrieved September 10, 2017 (https://assets.aspeninstitute.org/content/uploads/files/content/docs/pubs/Informing_Communities_Sustaining_Democracy_in_the_Digital_Age.pdf).
- Konczal, Mike and Marshall Steinbaum. 2017. "Declining Entrepreneurship, Labor Mobility, and Business Dynamism: A Demand-Side Approach." New York, NY: The Roosevelt Institute. Retrieved April 20, 2017 (http://rooseveltinstitute.org/wp-content/uploads/2016/07/Declining-Entrepreneurship-Labor-Mobility-and-Business-Dynamism-A-Demand-Side-Approach.pdf).
- Krueger, Alan B. and Orley Ashenfelter. 2017. "Theory and Evidence on Employer Collusion in the Franchise Sector." Retrieved December 3, 2017 Available at: http://arks.princeton.edu/ark:/88435/dsp014f16c547g.
- Kwoka, John E. Jr. 2013. "Does Merger Control Work? A Retrospective on U.S. Enforcement Actions and Merger Outcomes." *Antitrust Law Journal 78*. Retrieved April 20, 2017 (https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1954849).
- LaVecchia, Olivia and Stavy Mitchell. 2016. "Amazon's Stranglehold: How the Company's Tightening Grip Is Stifling Competition, Eroding Jobs, and Threatening Communities." Washington, DC: Institute for Local Self-Reliance. Retrieved June 4, 2017 (https://ilsr.org/wp-content/uploads/2016/11/ILSR_AmazonReport_final.pdf).
- Logan, John R. and Brian J. Stults. 2011. "The Persistence of Segregation in the Metropolis: New Findings from the 2010 Census." US2010 Project. Retrieved June 20, 2017 (https://s4.ad.brown.edu/Projects/Diversity/Data/Report/report2.pdf).
- Matsa, Katerina Eva. 2017. "Buying Spree Brings More Local TV Stations to Fewer Big Companies." Washington, DC: Pew Research Center. Retrieved June 20, 2017 (https://www.pewresearch.org/fact-tank/2017/05/11/buying-spree-brings-more-local-tv-stations-to-fewer-big-companies/).
- Mayer, Jane. 2016. Dark Money: The Hidden History of the Billionaires Behind the Rise of the Radical Right. United States: Doubleday.
- Merle, Renae. 2017. "Wall Street Wins Big as Senate Votes to Roll Back Regulation Allowing Consumers to Sue Their Banks," October 24, *Washington Post*. Retrieved November 3, 2017 (https://www.washingtonpost.com/news/wonk/wp/2017/10/24/wall-street-wins-big-as-senate-votes-to-roll-back-regulation-allowing-consumers-to-sue-their-banks/?utm_term=.32f6a6261ed9).
- Mishel, Lawrence, Josh Bivens, Elise Gould, and Heidi Shierholz. 2012. *The State of Working America, 12th Edition*. Ithaca, NY: ILR Press. Statistics available at: http://www.stateofworkingamerica.org/.
- Morrell, Alex. 2015. "The OxyContin Clan: The \$14 Billion Newcomer to Forbes 2015 List of Richest U.S. Families," July 1, Forbes. Retrieved November 1, 2017 (https://www.forbes.com/sites/alexmorrell/2015/07/01/the-oxycontin-clan-the-14-billion-newcomer-to-forbes-2015-list-of-richest-u-s-families/#16105e275e02).



- National Labor Relations Board. 2015. *Board Issues Decision in Browning-Ferris Industries*. (Press Release August 27, 2015). Washington, DC: NLRB, Office of Public Affairs. Retrieved September 15, 2016 (https://www.nlrb.gov/news-outreach/news-story/board-issues-decision-browning-ferris-industries).
- The Onion. 2017. "My Advice To Anyone Starting A Business Is To Remember That Someday I Will Crush You." The Onion Volume 53 Issue 30. Retrieved August 21, 2017 (http://www.theonion.com/blogpost/my-advice-anyone-starting-business-remember-someda-56539).
- Oremus, Will. 2013. "The Time Jeff Bezos Went Thermonuclear on Diapers.com," October 10, *Slate*. Retrieved April 20, 2017 (http://www.slate.com/blogs/future_tense/2013/10/10/amazon_book_how_jeff_bezos_went_thermonuclear_on_diapers_com.html).
- Ornaghi, Carmine. 2009. "Mergers and Innovation in Big Pharma." *ScienceDirect 27*(1):70-79. Retrieved April 20, 2017 (http://www.sciencedirect.com/science/article/pii/S0167718708000635).
- Oxfam. 2013. "Behind The Brands: Food Justice and the Big 10" Food and Beverage Companies." Washington, DC: Oxfam America. Retrieved December 10, 2017 (https://www.oxfam.org/sites/www.oxfam.org/files/bp166-behind-the-brands-260213-en.pdf).
- Posner, Eric A., Fiona M. Scott Morton, and E. Glen Weyl. 2016. "A Proposal to Limit the Anti-Competitive Power of Institutional Investors." *Antitrust Law Journal*. Retrieved June 19, 2017 (https://papers.csrn.com/sol3/Papers.cfm?abstract_id=2872754).
- Rahman, Sabeel K. 2017. "Private Power, Public Values: Regulating Social Infrastructure in a Changing Economy." *Cardozo Law Review 39(5)*. Retrieved August 20, 2017 (Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2986387).
- Ransom, Michael R. and Ronald L. Oaxaca. 2009. "New Market Power Models and Sex Differences in Pay." *Journal of Labor Economics 28(2)*. Retrieved June 4, 2017 (http://www.jstor.org/ stable/10.1086/651245?seg=1#page_scan_tab_contents).
- Reardon, Sean F and Kendra Bischoff. 2011. "Income Inequality and Income Segregation." *American Journal of Sociology 116(4)*:1092-1153.
- Rice, William and Frank Clemente. 2016. "Gilead Sciences: Price Gouger, Tax Dodger." Washington, DC:

 Americans for Tax Fairness. Retrieved June 6, 2017 (https://americansfortaxfairness.org/new-report-taxpayer-supported-gilead-sciences-is-price-gouging-the-public-then-dodging-taxes-on-the-huge-profits/).
- Roberts, Daniel. 2015. "The Kraft Heinz Layoffs Have Begun," August 12, Fortune. Retrieved June 4, 2017 (http://fortune.com/2015/08/12/kraft-heinz-layoffs/).
- Roberts, Jeff John. 2016. "Cities, FCC Lose Fight to Expand High-Speed Internet," August 10, Fortune. Retrieved June 6, 2017 (http://fortune.com/2016/08/10/municipal-internet/).
- Roosevelt, Franklin D. 1938. Message to Congress on Curbing Monopolies. Retrieved August 21, 2017 (http://www.presidency.ucsb.edu/ws/?pid=15637&utm_content=buffer5c860&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer).
- Rutenberg, Jim. 2017. "News Outlets to Seek Bargaining Rights Against Google and Facebook." July 9, *The New York Times*. Retrieved August 27, 2017. (https://www.nytimes.com/2017/07/09/business/media/google-facebook-news-media-alliance.html?_r=0)
- Sher, Andy. 2017. "EPB Will Remain Largely Inside Its Fence Under Haslam's Proposed Rural Broadband Initiative," January 27, *Times Free Press*. Retrieved June 7, 2017 (http://www.timesfreepress.com/news/politics/state/story/2017/jan/27/epb-will-remalargely-inside-its-fence-under-h/409765/).



- Smith, Gerry. 2012. "Many Rural AT&T Customers Still Lack High-Speed Internet Despite Merger Promise," November 18, *Huffington Post*. Retrieved August 20, 2017 (http://www.huffingtonpost.com/2012/11/18/rural-att-customers-merger-Internet_n_1914508.html).
- Song, Jae, David J. Price, Fatih Guvenen, Nicholas Bloom, and Till von Wachter. 2016. "Firming Up Inequality." Stanford University. Retrieved October 15, 2016 (http://web.stanford.edu/~djprice/papers/FUI_2016_FG_v3_copy-edited-with-tables.pdf).
- Soper, Spencer and Alex Sherman. 2017. "Amazon Robots Poised to Revamp How Whole Foods Runs Warehouses," June 26, *Bloomberg*. Retrieved June 14, 2017 (https://www.bloomberg.com/news/articles/2017-06-26/amazon-robots-poised-to-revamp-how-whole-foods-runs-warehouses).
- Statt, Nick. 2017. "Amazon will start selling Nike shoes directly for the first time," June 21, *The Verge*. Retrieved June 2, 2017 (https://www.theverge.com/2017/6/21/15847700/amazon-nike-shoes-deal-e-commerce-zappos).
- Steinbaum, Marshall. 2016. "Uber's Antitrust Problem," May 11, *The American Prospect*. Retrieved September 15, 2016 (http://prospect.org/article/uber's-antitrust-problem).
- Stiglitz, Joseph E. Roosevelt Institute, 2015. Rewriting the Rules of the American Economy. New York, NY: W.W. Norton & Company.
- Streitfeld, David. 2014. "Amazon Is Not Holding Back on Paul Ryan," September 30, *The New York Times*. Retrieved June 4, 2017 (https://bits.blogs.nytimes.com/2014/09/30/amazon-is-not-holding-back-on-paul-ryan/).
- Swanson, Ana. 2014. "Meet the Four-Eyed, Eight-Tentacled Monopoly That is Making Your Glasses So Expensive," September 10, *Forbes*. Retrieved October 20, 2017 (https://www.forbes.com/sites/anaswanson/2014/09/10/meet-the-four-eyed-eight-tentacled-monopoly-that-is-making-your-glasses-so-expensive/#6e06077c6b66).
- Swetlitz, Ike. 2016. "High Price of EpiPens Spurs Consumers, EMTs to Resort to Syringes for Allergic Reactions," July 6, *Statnews*. Retrieved June 4, 2017 (https://www.statnews.com/2016/07/06/epipen-prices-allergies/).
- Talbot, Margaret. "What Happens When the Heroin Epidemic Hits Small Town America?" Dave Davies. *Fresh Air*, June, 29, 2017.
- Tuttle, Brad. 2016. "21 Incredibly Disturbing Facts About High Prescription Drug Prices," June 22, *Time*. Retrieved June 7, 2017 (http://time.com/money/4377304/high-prescription-drug-prices-facts/).
- U.S. Department of the Treasury Office of Economic Policy. 2016. *Non-compete Contracts: Economic Effects and Policy Implications*. Washington, DC: U.S. Department of the Treasury. Retrieved June 4, 2017 (https://www.treasury.gov/resource-center/economic-policy/Documents/UST%20Non-competes%20Report.pdf).
- Varney, Christine A. 2011. *Dynamic Competition in The Newspaper Industry*. (Remarks prepared for the Newspaper Association of America, presented March 21, 2011). Retrieved December 3, 2017 (https://www.justice.gov/atr/speech/dynamic-competition-newspaper-industry).
- Walton Family Foundation. 2016. "Northwest Arkansas Quality of Life Survey." The Walton Family Foundation. Retrieved June 4, 2017 (http://www.waltonfamilyfoundation.org/our-impact/home-region/home-region-facts/quality-of-life-survey-highlights/parks-trails).
- Washington Bytes. 2017. "Will Amazon-Whole Foods Survive Antitrust Scrutiny Under Trump?" July 3, *Forbes*. Retrieved June 4, 2017 (https://www.forbes.com/sites/washingtonbytes/2017/07/03/will-amazon-whole-foods-survive-antitrust-scrutiny-under-trump/#2435df558e1e).



- Weil, David. 2014. The Fissured Workplace: Why Work Became So Bad for So Many and What Can Be Done to Improve It. United States of America: Harvard University.
- Wessel, David. 2015. "The typical male U.S. worker earned less in 2014 than in 1973." Washington, DC: The Brookings Institution. Retrieved December 3, 2017 (https://www.brookings.edu/opinions/the-typical-male-u-s-worker-earned-less-in-2014-than-in-1973/).
- White, Martha C. 2016. "Here's How Airlines Made \$41 Billion Last Year," September 21, *Time*. Retrieved November 3, 2017 (http://time.com/money/4501949/airlines-41-billion-fees/).
- W.P. Carey School of Business, Center for Leadership Services. 2017. "2017 Customer Rage Survey." Arizona State University. Retrieved December 3, 2017 (https://research.wpcarey.asu.edu/services-leadership/research-initiatives/customer-rage/).
- Wu, Tim. 2012. "Taking Innovation Seriously: Antitrust Enforcement If Innovation Mattered Most." *Antitrust Law Journal 78*:313-328. Retrieved April 20, 2017 (https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2166525).



