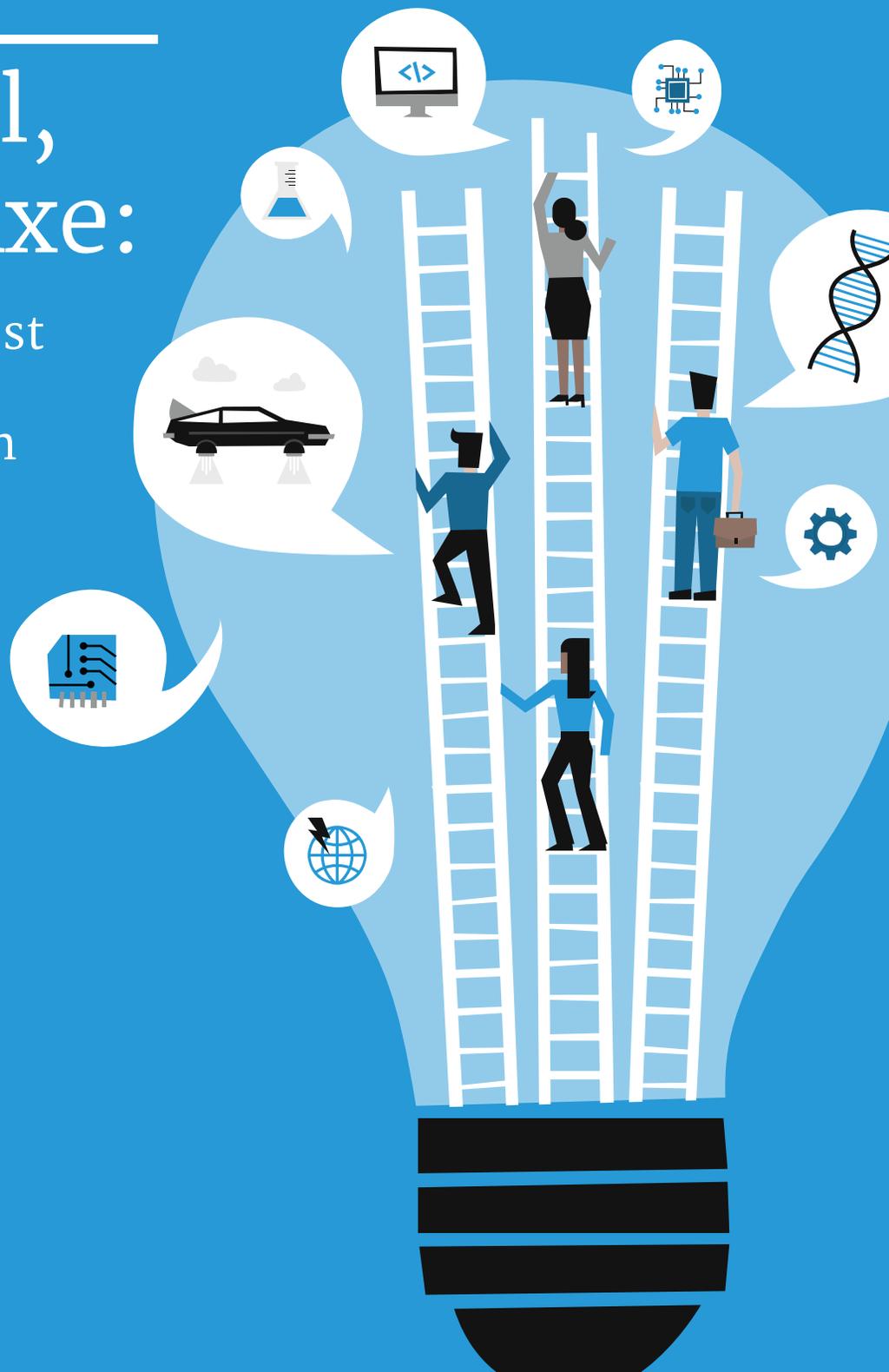


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A Scalpel, Not an Axe:

Updating Antitrust
and Data Laws to
Spur Competition
and Innovation

Robert Litan
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INTRODUCTION

Americans justifiably have long taken great pride in the unmatched ability of the U.S. economy to enable entrepreneurs to launch and grow highly innovative companies that drive growth and advance living standards. Bold entrepreneurs and the companies they founded brought us modern communications, airplanes, automobiles, computer software and hardware, and electricity and other forms of energy to power them all.

These innovations and others have constantly reshaped and remade our economy – displacing less efficient technologies and ways of doing business in a process of “creative destruction” that economist Joseph Schumpeter, many decades ago, singled out as the most important feature of capitalist economies.

The most innovative and valuable companies of our time are the leading “technology platform” companies: Amazon, Apple, Facebook and Google – a group New York University Professor Scott Galloway simply labels “The Four.”² Except for Apple, none of these companies existed before 1990. That they have eclipsed in the public mind – in such a relatively short amount of time – such other tech giants as Microsoft, Oracle, Cisco and Intel is a testament to the remarkable acumen of the founders and leaders of The Four, their highly skilled workforces, and to the economy and society that have enabled them to flourish.

But, in a reversal of fortune, the success of The Four is now being questioned and even attacked. Coupled with rising concentration of national markets in other sectors, The Four are now being blamed for a series of ills: limiting competition; chilling startups and the innovation they bring, thereby slowing down U.S. productivity growth; widening income and wealth inequality; and threatening our privacy and even our democracy.

Calls are mounting for more aggressive antitrust enforcement across the board, statutory changes to the antitrust laws, breaking up The Four for antitrust and non-antitrust reasons, and at the very least subjecting them to tighter regulation. Famed investor George Soros has predicted that two of these two companies, Facebook and Google, will be doomed by future regulation and taxation – a prediction that, if it came true, ironically would render any breakup of the two unnecessary.³ Even *The Economist*, generally known for its pro-market views, presciently warned The Four and tech industry more broadly about the current “tech lash” – which still could take any number of forms – against them.⁴

My purpose in this essay is to try to put into perspective this angst about the rise of the tech platform companies and growing industrial concentration at the national level, and to outline what I believe to be a measured policy response to these developments. I say “measured” because, while there is a temptation to turn to radical solutions to fix our problems – with growing income inequality and our newfound worries about a loss of privacy – major departures from existing policies, especially toward some of the most successful private sector firms and the major economic and social benefits they have generated, also risk unintended costly consequences with uncertain benefits.

In what follows I address and analyze separately and in sequence antitrust concerns raised by the apparent increase in industry concentration and the rise of the tech platform companies and what I believe are appropriate policy responses to them, and then the related but different threats posed by not only the tech platforms but other firms inside and outside of tech holding or processing vast amounts of personal data.

Key Findings and Proposals for Modernizing Antitrust Laws

- National market concentration statistics are poor measures of the strength of competition. Trends toward increased corporate profitability, although flawed in some respects, are better indicators of the strength of competition – and are consistent with a moderate lessening of competition (or at least a reasonable risk that this happened) – in markets for products sold to business and services. Recent evidence of the downward pressure on pricing of consumer goods exerted by online commerce, and by Amazon in particular, undercuts claims that competition has somehow lessened in consumer product markets.
- While the balance of the evidence establishes that the tech platforms have not harmed economy-wide innovation, there is evidence that the strength of competition throughout the economy has lessened somewhat. There is also evidence that the rise of the tech platforms and concentrated employer markets across multiple sectors at the local level are contributing to wage inequality.

- With certain exceptions, current antitrust laws can effectively address today's competition concerns, whether off or on the Internet. The moderate lessening of competition outside the consumer products sector also warrants close continuing scrutiny of a wide range of markets – even those not concentrated – for evidence of price fixing. Antitrust enforcers must also pay close attention to the activities of dominant firms in all sectors, including the tech platforms, to ensure they are not abusing their market power by discriminating against firms (such as content providers on the Internet or on video platforms) with which the platform providers may compete.
- It is too early to tell whether the Supreme Court's recent decision in *Ohio v. American Express*, requiring antitrust prosecutors to consider "two-sided" markets like credit cards as a single relevant antitrust market, will affect future prosecutions of tech platforms for any abuses of any monopoly or market power they may have. One reason is that the credit market in *American Express* had three major competitors and the Court was not presented with a monopolization claim. In addition, the majority opinion in *American Express* made clear that its decision was fact-specific, which keeps the door open to future antitrust challenges to tech platforms that abuse their dominance on just one side of their markets.
- Merger enforcement officials can and should routinely consider the impact of mergers on lessening competition in local markets for labor, where excessive concentration of employers can suppress wages below competitive levels (although this scrutiny is unlikely to have a major impact on the technological forces driving wage inequality). The widespread use of "no poaching" agreements imposed by franchisors against franchisees is also disturbing, because they limit workers' mobility and suppress their wages. While multiple fast food franchisors have recently agreed to end the practice, a proposed bill by Senators Booker and Warren to outlaw it would provide greater legal certainty going forward and should be adopted.
- Enforcement of the current antitrust laws also should take account of market impacts of data concentration, in both the merger and non-merger context. There is no obvious additional legislative change that is necessary to assure this outcome.
- If the judicial ruling upholding AT&T's acquisition of Time Warner is not reversed on appeal, the Justice Department should reconsider its opposition to conditions on vertical mergers involving firms with some market power to minimize the risk of anti-competitive conduct. Regardless of the outcome of that litigation, however, the Department should also update its vertical merger guidelines to better reflect current economic research about the dangers of vertical mergers where one of the parties has substantial market power.

- Nothing the tech platform companies have done so far warrants their breakup for antitrust or other reasons. The law justifiably requires severe and/or sustained anticompetitive conduct as a precondition for court-ordered breakups, which, over the past century, have been infrequent. In the near term – now that the EU has ruled (subject to appeal) that Alphabet used Android to unlawfully tie other Google functions to it – an official and/or private antitrust suit against the company for the same practices may be forthcoming in the United States. If such a case were filed and a court agrees with the charges, any tying can be much more cost-effectively addressed through a judicial injunction than breakup. There is no principled basis for expanding the government’s ability to break up any of the tech platform companies for non-competition related reasons.
- While vigorous enforcement of the *current* antitrust laws can address specific anti-competitive abuses, certain *targeted* legislative changes would better preserve a competitive economy: a modest tightening of the statutory test for mergers, from the current “substantially lessen competition” standard in Section 7 of the Clayton Act to a “materially lessen competition” standard; establishing a rebuttable presumption against mergers where the acquiring firm has a dominant position in its market and has the ability to effectively enter any market in which the acquired firm competes; and a statutory revision of the Expediting Act of 1903 to reinstate the pre-1974 language that provided for the automatic appeal of any

district court decision under the Sherman Act to the Supreme Court, if either party wants to pursue such an appeal.

- Several of the more “populist” antitrust reform proposals – going backward in time to interpret the antitrust laws as protecting competitors rather than the competitive process, reworking merger law to achieve other objectives for which it is ill suited, changing the law on predatory pricing, or regulating the tech giants as public utilities – are either unnecessary or potentially counter-productive.

While measured antitrust reforms are called for, it is important that policymakers recognize the limits of what sound antitrust policy and enforcement can and cannot do. It can and must help ensure that markets remain competitive, for that is the best way to encourage firms to satisfy consumer wants at the lowest cost today and to innovate for tomorrow. The antitrust laws and enforcement officials must recognize the inherently positive role played by “creative destruction” in ensuring the economy retains and ideally enhances its dynamism.

This is not to dismiss the importance of addressing such major economic and social challenges as rising income inequality, the stagnation of wages of the middle class, and the ongoing and difficult transition to a more digitized and automated economy – all resulting from continued technological advances. This will require, among other things, a much more ambitious program of lifetime retraining opportunities, and improvements and enhancements in transition aid for displaced workers. Effective antitrust policy is not and cannot be the main tool for meeting these challenges.

Other policies, outside antitrust, however, would improve the state of competition in America. These include lifting unnecessary occupational licensing requirements (which most likely will have to be accomplished at the state and local levels) and a return to freer trade, which disciplines pricing by U.S. companies. The price increases generated by the tariffs imposed by the Trump Administration on steel and aluminum, for example, could easily swamp any price increases due to collusion of domestic competitors in these industries, which the tariffs ironically make more likely. Supporters of vigorous antitrust enforcement to benefit consumers, if they are to be philosophically consistent, should also oppose the turn toward protectionism of the current Administration, and a return to pre-Trump era efforts at removing remaining trade barriers (while also supporting a more generous and effective system for assisting workers displaced by trade, outsourcing, and automation as they transition to other jobs and careers).

Updating Data Laws to Protect Privacy and Security

- All firms, not just those in tech, should be required to provide plain English explanations to “data subjects” of what data the firms collect about them and how it is used and, at a minimum, should offer those subjects the ability to opt out of having their information shared with third parties. Additional opt-in requirements, beyond those applicable to health information, are presumptively warranted, but should be studied more carefully before being mandated (whether for specific industries or across the board).
- Federal law should require all large data warehouses – a term that would require further definition in an authorized rulemaking – to adopt reasonable measures to ensure data security.
- While online platforms should disclose the source of funding for political ads, there are limits to what even the leading legislative proposal, The Honest Ads Act, would accomplish. Those limits are especially apparent when it comes to considering ways to reduce the “fake news” problem, which I conclude can best be handled, though imperfectly, by the platforms themselves and through market innovations by third parties. Senator Warner’s proposal to require tech platforms to disclose “bots” is a good one, although the platform companies are going further in their attempts to remove them altogether. All of these efforts, however, as exercises in censorship or bias. President Trump has charged that the search results or news feeds of Google, Twitter and Facebook, in particular, are biased against conservative information sources. Although Google has vigorously denied the bias charge, the attacks on the Internet platform companies illustrate the difficulty, if not impossibility, of regulating their content without running afoul of the First Amendment.
- New regulation to address the data-related “externalities” of tech firms will require more resources for enforcement and rulemaking, but not a new agency. The Federal Trade Commission, currently charged with other consumer protection duties, is the logical agency to handle any additional regulatory assignments relating to data issues.
- In all that they do to regulate the tech industry more intensely, policymakers must be aware that additional data-related

regulation is likely to favor large incumbent tech firms relative to smaller competitors and new entrants. Regulatory compliance is a fixed cost, and larger firms can take advantage of their economies of scale to comply. In addition, larger firms have greater ability than actual or potential new entrants to “capture” the regulators charged with overseeing them. For these reasons, there is an inevitable tension between regulating tech’s externalities and limiting big tech from using its economic dominance to distort the competitive process and to dampen innovation in the process.

The combination of measured reforms I outline here will not satisfy those on either extreme on these issues – ranging from those who believe there are no problems justifying further government involvement to those believing that dominant firms must be broken up and/or strictly regulated. I stand where I do, somewhere in the middle, because the issues addressed are hard and complicated and, once one thinks about all the costs and benefits of the more radical alternatives, are not easily solved. Moreover, given the pace of technological change, especially in tech, unintended consequences lurk behind almost all reform initiatives.

MODERNIZING ANTITRUST LAWS FOR THE DIGITAL AGE

Before addressing complaints about the rise of the tech platform companies (and the Big Four in particular), it is important to keep in mind the sizeable benefits the tech giants and the technologies they have commercialized have brought not only to the U.S., but to the world:

- Alphabet/Google has dramatically cut the costs and inconveniences of finding

information, making it possible for people to tap into a “worldwide library” instantaneously – and – for those of us who had to find information before search engine technology was available and easily used – quite miraculously. After acquiring YouTube, Alphabet has turned it into one of the largest video platforms in the world. The company has other divisions committed to long-term investments that could help usher in driverless cars, new life-extending medical advances, and possibly other major innovations.

- Facebook has morphed from a way for college students to interact with each other to become the most important social media platform in the world – connecting people of all ages to their past and current friends, and other more distant “Facebook friends,” while dramatically reducing the costs of organizing almost anything. Both Presidents Obama and Trump realized and exploited this huge trove of data in their campaigns, but it has also been harnessed by organizers of the Women’s March in 2017 and the “March for Our Lives” in 2018. Twitter, too, has become a powerful communications tool – so powerful that not only our current president, but leaders of other countries, have used it as a way of cutting out traditional media intermediaries and going directly to people all over the world.
- Apple, too, has changed itself in a different way: from a niche computer manufacturer into one of the world’s most valuable and powerful companies when it began rolling out a series of sleek consumer electronics products, especially its iPhone models. Together with its Android-operated counterparts, Apple’s products have become platforms for an incredibly wide and

expanding range of applications, as well as “go to” communications devices that have effectively replaced wireline telephones and most cameras. Apple also seems to have convinced its large body of iPhone users that the sexiness of its products justifies its premium pricing (and profits); however, that is not an antitrust offense (the Android smartphone operating system holds a commanding lead in market share of such systems), but, rather, is the reward for brilliant brand marketing.⁵

- Amazon has revolutionized retailing by offering customers (at first online, but now in physical stores for groceries, with its acquisition of Whole Foods) a combination of low prices, a huge product selection, and convenience that longstanding bricks-and-mortar retailers so far have been unable to match. At the same time, the company has become a leading provider of “cloud” computing services, invigorating competition in that market, which has dramatically lowered entry costs for new and smaller businesses – roughly 1 million of them, doing business on Amazon’s e-commerce platform.⁶ The company is also in the early stages of entering the transportation business, competing with FedEx, UPS and the U.S. Postal System, and has recently announced an acquisition of a leading online retail pharmacy.

It is not just The Four that are remaking the American economy. As *The Economist* reported in late May: “the top five [tech companies] are Alphabet, Amazon, Apple, Intel and Microsoft. In the first quarter [of 2018], tech firms accounted for 25 percent of the S&P 500’s market capitalization, 31 percent of its investment and a staggering 47 percent of the absolute rise in that investment. Budgets for 2018 tell a similar story.”⁷

On the surface, the success of tech in America is a remarkable “good news” development – in a sector where the U.S. clearly has both a comparative and absolute advantage relative to the rest of the world. China comes closest – but in business models so far copied from the U.S. and lower-value manufacturing rather than in higher-value engineering and design. The EU has nothing like The Four or other tech successes like Microsoft, Intel, Oracle, and the multiple U.S. “Unicorn” tech-enabled platforms such as Uber, Lyft, Airbnb.

But, in America – in both politics and economics – no one can be complacent about success. As outlined in detail in Appendix A, Americans have long been distrustful of concentrations of power – both political and economic. Thus, at least in retrospect, it should not be surprising that the most successful tech platform companies, after enjoying accolades and good press, suddenly have been attacked, especially over the past two years, for harming the economy and our workers in multiple ways and posing new, unwanted risks to our privacy, security and elections. Related economic criticisms have been leveled at rising concentration in other industries – at least when it is measured at the national level.

In fact, there are legitimate reasons antitrust enforcement must be especially vigilant toward dominant firms in any sector, and anti-competitive conduct even in unconcentrated industries. The antitrust laws also should be modestly strengthened in certain respects to maintain a healthy degree of competition in the economy, while certain targeted regulation of all companies handling consumers’ data is warranted to address legitimate non-antitrust-related concerns. This, in a nutshell, is the main thesis of this essay.

But calls for breaking up tech platforms – which reflect fundamental economic forces of economies of scale and “network effects” – without clear evidence of abusive conduct that cannot be remedied by less restrictive means are both premature and could chill innovation and hurt consumers and technology users. Likewise, suggestions that the antitrust laws or doctrines should go back to protecting small business for its own sake – even at the expense of hurting consumers – are misplaced.

DO TECH PLATFORMS STIFLE INNOVATION?

Market economies work best when there is a healthy degree of competition among firms. Competition assures that prices of goods and services reflect the costs of production and delivery, with allowance for a “normal” amount of profit. Likewise, competition drives existing and new firms to innovate, develop and bring to market new goods and services that are cheaper or better in some fashion than those they displace.

Our antitrust laws were enacted and have been enforced through the years to maintain competition, prohibit price fixing, prevent dominant firms from abusing their market power, and stop firms from merging to substantially lessen competition. Appendix A outlines the modes of analysis governing interpretation of these laws – and how they have changed through the years. Appendix B provides a guide to how the antitrust and consumer protection laws are enforced, both through official enforcement bodies and private lawsuits.

Nonetheless, fears have been expressed from across the political spectrum about the growing power of the major tech platforms – especially The Four – for stifling innovation. It is important in assessing any such claims to distinguish

between the factors that have led to tech platform successes, and subsequent activities of certain platforms once they have gained some measure of market power or influence.

As for their success, there is no evidence – nor do I detect any serious argument – for the proposition that any of the major tech platforms earned their positions through anti-competitive means. Even when the Department of Justice twice sued Microsoft in the 1990s – initially for abusive licensing practices in 1994, which was settled by a consent decree, and then again in 1998 for unlawfully maintaining its Windows operating systems (OS) monopoly for personal computers, ending in certain restrictions on Microsoft’s behavior – the Department never argued that the company *achieved* its OS monopoly unlawfully. Likewise, each of The Four has achieved its success through superior products or services that consumers or users clearly want (shortly, I address arguments that the success of Facebook and Google is attributable, at least in part, to mergers that should not have been approved).

Moreover, in each of these cases, the tech platforms have taken advantage of economies of scale given the high fixed costs (but low to zero marginal costs) of serving additional users/customers, or “network effects” arising from the fact that the value of their networks or platforms increases with the number of users, or both. Put differently, tech platform markets (for perfectly legitimate and well-understood reasons) tend toward monopoly – “winner take all” – or at least a high degree of market concentration.⁸

Competition has not somehow been “lessened” when successful platforms invent a product or service that did not previously exist. Furthermore, despite their dominance in one

market or sector (which may not constitute a “relevant market” for antitrust purposes) – social media (Facebook), online commerce (Amazon), Internet search (Google), premium smartphones (Apple) – the platforms are invading each other’s turf and, in turn, creating new kinds of competition against each other. Witness Facebook’s competition with Google for online ads, which Apple is just joining. Likewise, while Google may dominate general Internet searches, its chief competitor for product searches is Amazon.

Speaking of Amazon, though businesses in various parts of the economy are fearful of that company’s business model, recent research documents that online commerce, which Amazon has pioneered, has kept consumer product inflation in check – and, in many cases, helped drive prices downward. This clearly benefits consumers.⁹ The Chairman of the Federal Reserve Board, Jerome Powell, has pointed to the “Amazon effect” as potentially a major reason the overall inflation rate has not accelerated even as the unemployment rate has fallen to historic lows.¹⁰ It is hard to square these developments with claims that competition has weakened in consumer product markets. All of this is good for consumers and workers since, other things being equal, less inflation at any given level of unemployment enables the Fed to permit the economy to run “hotter,” with less unemployment, than might otherwise be the case.

Amazon, Apple and Alphabet also have entered the entertainment business, joining another tech platform, Netflix, and the traditional Hollywood studios – in the process, providing much stronger competition in the content generation market. Significantly, the tech companies’ entry into content is de novo, or from scratch, rather

than through acquisition of existing firms, except for Alphabet’s acquisition of YouTube – a content site Google (later Alphabet) beefed up after it was acquired.¹¹

Each of the tech platforms already has entered (or is looking to enter) other lines of business – either creating new markets or adding to competition in existing ones. Examples include Alphabet’s Waymo division that is working hard to commercialize driverless vehicles, and Amazon’s apparent intention to enter the transportation market – not only to make the company independent of third-party transporters such as FedEx, UPS and the U.S. Postal Service, but eventually to compete directly against them, potentially bringing down transportation costs as Amazon has done in other markets it has entered.

But what about the market power of the tech platforms? Don’t they inhibit competitors – new and existing companies – from challenging them? A recent article in *The Economist* warns that the tech platforms have become so powerful and threatening that they have established “kill zones” around their markets – arenas where startups know they will be squashed if they try to compete with the existing platforms, and thus can only sell out to them. “Ninety percent of the startups I see are built for sale, not for scale,”¹² one venture capitalist told the magazine. In addition, the article worries about the absence of new platforms to challenge (and ideally disrupt) the incumbents.

There are several responses to this critique. First, each of the major tech platform companies acts as a host for startups and smaller existing businesses – creating markets for their services or products where none may have existed before, or extending their reach far beyond where they may be physically located. As already noted, Amazon hosts more than 1 million

businesses selling all kinds of goods on its platform, including used books and other items that compete with Amazon's own offerings. Indeed, more than 50 percent of the non-food items sold on the Amazon platform are derived from independent merchants' sales.¹³ Apple and Google collectively host millions of applications on their mobile platforms (iPhone and Android). Facebook's advertising model, despite the criticism it has drawn, has spawned a whole industry of advisers on social media advertising and marketing to companies, large and small.

Second, the pattern of the decline in startups is also inconsistent with the rise of the tech platforms being the villain in the overall startup decline. As a recent Brookings study documents, the drop of startup activity is spread across all major industry categories¹⁴ and is not concentrated in tech, as one would expect to see if the tech platforms were principally to blame for the overall drop in startup activity.

Third, my own research with Ian Hathaway, which documents the decline in the startup rate (the percentage of the total number of firms that are less than five years old) in all but one of the roughly 350 metropolitan areas in the United States, identifies two other potential explanatory factors that are statistically related to startup trends. The decline in startup rates is steeper in metro areas where population has not been growing (suggesting both supply and demand factors at work), and where the concentration of firms at the local level *regardless of industry* is relatively high.¹⁵

In other work, we also found – as did the later Brookings study just noted – that firms are “aging” in America, with a greater percentage of firms being at least 15 years old.¹⁶ We did not find the age increase to be related to measures

of local business consolidation, and we didn't have the data to link it at that time to measures of industry concentration. Nonetheless, the aging of the firm structure in the economy could help explain some of the decline in productivity growth about which many economists have worried – and which I discuss in the next section – in at least two ways.

Firms may be like individuals, being less innovative as they grow older (past a certain point) – reflecting the stifling effects of growing bureaucracy, with multiple approvals and associated delays and second-guessing of anything new. In addition, the increasing share of businesses represented by older firms may reflect advantages of incumbency, which may have resulted from superior efficiency, but may also reflect the fact that the growing numbers and compliance costs of local, state and federal rules put a disproportionate burden on newer firms – historically the source of much disruptive innovation.

President Obama's Council of Economic Advisers has pointed to similar factors in its attempt to explain the decline in startup activity:

“The reasons for declining firm entry rates are not well understood, but a partial explanation is that barriers to entry may have increased in many industries. These barriers could be in the form of federal, state, or local licenses or permits, including occupational licenses ... While such regulations serve a valuable role in protecting public well-being, they can also add fixed costs to an entrepreneur wanting to open a new business. Barriers to entry may be related to various advantages that have accrued to incumbent firms over

time. For example, economies of scale may mean that incumbent costs are far below those of new entrants, making it difficult for entrants to compete. Or demand-side network effects may tip the market to a single provider of the network good. But incumbent advantages could also be political in nature; for example, if existing firms successfully lobby for rules protecting them from new entrants.”¹⁷

Fourth, whatever impacts the tech platforms may be having in their markets, they do not appear to have adversely affected annual venture capital funding, which, by 2017, had almost tripled from levels before the dot-com crash (from \$55 billion to \$150 billion).¹⁸ It may be true that the power of tech platforms has diverted VC funding into spaces away from platforms and their surrounding markets (though the launch of companies for “sale” rather than “scale” is inconsistent with that claim), and toward other unrelated markets, such as electric vehicles, blockchain apps, e-sports, robotics, or synthetic biology. But this redirection of venture money is not necessarily a bad thing. It may portend breakthrough innovations in other markets of greater potential value to the economy and society that may never have occurred – at least, not as rapidly – had VC money continued to fund more Web-based platform companies.

Finally, even if the tech platforms are using their “kill zones” to deter or buy new competitors, that doesn’t warrant their breakup. It does, however, call for a change in merger law that will tilt the existing platforms to entering new markets on their own rather than through acquisition, which should encourage innovation

by the platform companies.

WHAT ACCOUNTS FOR THE MODEST DECLINE IN COMPETITION?

In addition to the rise of the tech platforms, much attention has been paid to rising levels of concentration in non-tech markets, as documented by or commented on by the media,¹⁹ academic scholars,²⁰ elected officials,²¹ and by President Obama’s Council of Economic Advisers.²² Increased concentration, in turn, has been blamed for lessened competition, higher prices, and reduced innovation.

National market concentration measures, however, do not necessarily prove that actual competition is declining. Carl Shapiro, one of the nation’s leading industrial organization economists and former chief economist for the Justice Department’s antitrust division, has shown that national concentration measures of product or service markets do not always constitute a *relevant geographic market* where competition takes place.²³ Shapiro identifies several industries where this difference is important. Although national chains may account for larger shares of revenue in these industries, there is (yet) no evidence of reduced competition at the local level where these firms tend to compete: accommodations and food, finance, health care, professional services, property, retail trade, transport and warehousing, utilities, and wholesale trade.²⁴

Nonetheless, the growth rate of labor productivity in the U.S. has remained low by historical standards – at around 1 percent – over the past decade. This is worrisome because productivity growth is the key to rising living standards.

One reason for the productivity growth slowdown may be the decline in the rate of formation of new firms, which, over the past two centuries, have been disproportionately responsible for commercializing disruptive innovations.²⁵ Likewise, workers are moving less frequently than they once did – either between firms in the same city or between cities.²⁶

The temptation is great also to blame poor productivity performance on increasing industry concentration, but it should be resisted for several reasons. For one thing, as already noted, trends in national concentration statistics are poor measures of the state of competition. Moreover, as Shapiro has noted, even the increases in concentration that have occurred in narrowly defined industries at the national level – some of which can be attributed to relaxed merger enforcement by the Department of Justice after it updated its Merger Guidelines in 1982 – are mostly in unconcentrated industries and not of a magnitude that would indicate any material diminution of competition.²⁷ And, if competition has not materially declined, then the state of competition cannot be linked to the decline in productivity growth or other measures of economic “dynamism” such as startup activity or worker mobility.

Statistical studies also do not support any connection between the modest increases in national industry concentration and the decline in productivity growth. David Autor and colleagues, who have been critical of increased concentration for its impacts on the labor market, have found a statistically *positive* relationship between an industry’s concentration level and its productivity improvements.²⁸ Likewise, there is evidence linking investment

in information technology (which is productivity enhancing for the firms making the investment), with more industry concentration. However, Bessen argues that – because much IT investment is proprietary and not diffusing to the rest of the economy – the economy-wide impact on productivity may be less than optimal.²⁹

Concentration data over any geographic area are not the only measure of strength of competition among firms, however. Another indicator is profitability. In well-functioning competitive markets, profits (measured as a return on capital invested, or as a percent of revenue) are expected to move up and down with the economic cycle. But a *sustained* rise in profitability in specific markets over the course of a cycle – or over an extended period spanning more than one business cycle – should be a signal to new or potential entrants that there are gains to be had from entering those lines of business. If this is not happening – or if profits consistently remain high – then that may be a signal that competition has lessened, allowing firms to earn “economic rents.”

That, in fact, looks like what has happened in many industries. Shapiro points to the fact that the share of overall corporate profits in GDP rose from roughly the 7-8 percent range of the two decades preceding the 2008 financial crisis to roughly an 11-12 percent share since then – a 50 percent increase.³⁰ In fairness, some of this increase is due to the rise of superstar firms, which benefit from both economies of scale and network effects. In addition, some portion of increased profits may reflect legitimate “monopoly rents” earned on intellectual property – the foundation of many tech firms’ success.

Nonetheless, the jump in aggregate profitability, especially among the most profitable firms already in the top decile,³¹ is also consistent with some increase in oligopolistic pricing. At minimum, the profit data point to an increased *risk* that competitive pressures in the U.S. economy – at least outside consumer products for reasons already noted – have diminished. That fact alone warrants intensified antitrust scrutiny.

A more recent analysis by economists at the International Monetary Fund is consistent with Shapiro’s analysis.³² This study found that markups of publicly-traded firms in advanced economies such as the United States increased by an average of 39 percent since 1980 – an increase the authors find is linked to industry concentration. However, the authors also provide a nuanced conclusion, cautioning against drawing broad antitrust policy implications from their results:

“The appropriate policy responses to this increase in market power depend on what drives it. We leave an exploration of the causes of rising market power for future work. In cases where barriers to entry are driving the increase in market power, and where that power is being used to restrict supply or engage in predatory pricing, antitrust policies could play important roles. At the same time, rising network and information externalities and increasing returns to scale may justify the existence of an oligopolistic structure in certain industries.”³³

Many antitrust economists nonetheless are suspicious of using measured accounting profits as indicators of true earning power, since there are ways clever accountants (and the firms that employ them) can “manage” or “smooth” earnings, depending on when revenues and expenses are recognized and in what amounts. The accounting profession and the Financial Accounting Standards Board do their best to minimize these accounting games through detailed rules and guidance for best accounting practices, but there is no way to root out all problems.

This is a valid critique but does not eliminate the usefulness of looking at accounting trends over time. That is because accounting tricks have always been with us and, while they vary in magnitude and timing, over time it is hard to disentangle what portion of the reported increase in corporate profitability is due to a *change* in accounting and what portion is due to lessened competition. Accordingly, I reiterate the conclusion I draw from the Shapiro and IMF analyses: The trend toward increased aggregate profitability points to the *risk* that competition in some parts of the economy has weakened, warranting aggressive antitrust enforcement. The open question is what *kind* of enhanced antitrust enforcement is most appropriate.

WHY WE NEED MORE VIGILANT ANTITRUST ENFORCEMENT

Whatever one makes of trends in national concentration measures over time, there are still pockets of the U.S. economy that have remained less than fully competitive for some time but where technological advances and/or changes in other policies can improve competition.

For example, many areas of the country have only one cable television and landline broadband provider, supplemented only by limited satellite competition. The good news, however, is that technological advances in wireless broadband (especially the impending rollout of 5G wireless networks) and “over-the-top” television offered through the Internet are eroding the market power of broadband and cable TV providers.

The U.S. airline industry, which is now dominated by four carriers, is another sector of the economy that is less than fully competitive. Concentration has declined in this industry not because of natural causes – economies of scale or network effects – but rather because of multiple mergers the Justice Department has permitted over time, with only occasional divestitures of overlapping routes. The DOJ has taken this stance because courts have not been receptive to arguments that such mergers eliminate “potential competition” – a circumstance I suggest fixing with a reform outlined in a later section.³⁴

Competition along many U.S. routes would be strengthened if U.S. authorities were to permit foreign air carriers to fly domestic routes within our country. However, this is unlikely to happen so long as airline route authority is treated on a reciprocal basis, requiring agreements opening markets to U.S. airlines at the same time. Even then, many countries with great national

airlines, such as those in the Middle East and Singapore, offer too small a domestic market to be attractive to U.S. airlines – effectively ruling out any reciprocal “open skies” agreements with them. Still, the fact that foreign goods and services make our markets more competitive, and less susceptible to collusion that raises prices for U.S. consumers, is an important and often neglected force.

While the net impact of the tech platforms has been positive for the U.S. economy so far, their future activities must be closely watched by antitrust authorities. The Microsoft litigation of the 1990s provides a powerful reminder that no firm achieving a monopoly or market power in a specific “relevant market” can maintain that monopoly through unlawful means. The Supreme Court has made clear that it is legitimate for firms to earn a dominant market position if they accomplish that result “as a consequence of a superior product, business acumen, or historic accident,”³⁵ but, once having reached that level of success, they cannot abuse it by engaging in “bad acts” – such as penalizing customers who patronize competitors or engaging in “predatory pricing” (a subject discussed in greater detail later) – that unfairly entrench that dominance. Although, as outlined in Appendix B, the antitrust laws enable private litigants to recover three times the damage they suffer on account of antitrust violations, the financial risks of pursuing antitrust litigation, even if conducted on a contingency basis by private law firms, may be too high for injured parties to deter all abusive conduct by dominant firms with much greater financial resources.³⁶ That is why, along with private parties, the antitrust enforcement agencies must be vigilant in overseeing the activities of all dominant firms, including each of the successful tech

platform companies, despite their increasing competition with each other – an obligation the new chairman of the Federal Trade Commission (FTC) has explicitly recognized.³⁷

Special attention should be paid where a platform company not only hosts the products or services from other companies, but also competes directly with them. This doesn't mean such competition necessarily thwarts competition. Amazon, again, is an example. It hosts roughly one million sellers of books and other items on its platform – giving those parties far greater exposure on the crowded Internet than they might otherwise receive, thereby enhancing competition. Knowing that Amazon also already competes in many of these markets (or easily would be able to compete) nonetheless hasn't stopped many third parties from signing up. And, as noted, by enabling consumers to easily compare prices and product attributes, Amazon's platform is lowering prices overall for consumers – a development that is inconsistent with claims that competition has been lessened in consumer product markets

Platforms with market power nonetheless can leverage that power into other markets, thereby possibly chilling competition in them or reinforcing market dominance in their own markets by bundling one service (say, content) with another (content delivery). One example is potential discrimination by video platform companies against content providers, an issue that was central to the U.S. government's challenge to AT&T's purchase of Time Warner. The federal district court in the District of Columbia rejected the government's claims that AT&T in the future might use its market power in delivering video in certain geographic markets to engage in such discrimination (by charging different prices or impairing quality of

service) to benefit Time Warner, pointing to: (1) the absence of such discrimination by Comcast after it bought NBC Universal, and (2) AT&T's economic incentives to maximize revenues by carrying other content on its television distribution networks (U-Verse and Direct TV). Yet the court's opinion essentially ignored the fact that Comcast had been prohibited from such discrimination in advance – due to the consent decree the Justice Department required it to sign as a condition of approving its acquisition of NBC Universal. In July 2018, the government appealed the district court's ruling. Whatever happens on appeal in this case, the Justice Department must be vigilant to prevent any future content discrimination by any video platforms that are also in the content business.

Similarly, federal antitrust authorities have the same obligation to prevent anti-competitive discrimination on the Internet, such as blocking or deliberately slowing down the delivery of certain content providers, given the FCC's decision rescinding the 2015 net neutrality order subjecting broadband providers to public-utility style regulation under Title II of the Communications Act. Justice had this duty before the 2015 net neutrality order was put in place, and now has it again.

The European Union's Competition Directorate recently found that Google (now Alphabet) favored its own product comparisons to third-party comparison services. The EU imposed a 2.4 billion euro fine against Google, which it is appealing. Google has since responded by placing its own product comparisons on the right side of its search results pages (where all the ads appear) and taken those comparisons out of its generalized search results – an action that will make it difficult for U.S. antitrust enforcement agencies to prove that comparison

service offered by Google/Alphabet is now violating the antitrust laws. This hasn't stopped Missouri's attorney general from launching an investigation into Alphabet's prior search practices. During the Obama administration, the Federal Trade Commission investigated, but ultimately exonerated, Google for the same conduct.³⁸

In mid-July 2018, the EU's competition directorate issued another ruling against Alphabet, this time finding that the company had abused its market power by tying its Android smartphone operating system to Google's browser, search engine and other Google apps. The EU left it up to Alphabet, however, how to unbundle Android from the other Google apps, although the Competition Directorate penalized the company with the largest fine (equivalent to \$5 billion) in the EU's history. Google is appealing both the EU search and Android decisions.

It remains to be seen whether U.S. antitrust regulators will bring a similar Android case against Alphabet. Even if that were to happen and a court were to agree that Alphabet has engaged in unlawful tying, that practice can be easily halted through an injunction. There is no need to force Alphabet to divest the company's Android operations – a step the EU didn't take.

Meanwhile, the Supreme Court's decision in late June 2018 (in *Ohio v. American Express*, requiring antitrust enforcers to take account of the benefits and costs of both sides of "two-sided markets," such as credit cards) has aroused concerns about the potential impact on possible future antitrust cases brought against dominant platform companies. Some worry the Court's ruling will make it more difficult to challenge future anti-competitive practices of the tech platform companies since they, too, have two sides to their "markets."

Much ink surely will be spilt on the wisdom of the majority's decision authored by Justice Thomas, which treated both the merchant and cardholder sides of the credit card companies' two-sided market as a single relevant antitrust market. Writing for a majority of the court, Thomas found the lower court did not take adequate account of the benefits – reward points and rebates – to American Express' consumers of the restrictions AmEx imposed on merchants from steering customers to cards imposing lower fees on merchants. Justice Breyer, in a dissent, argued the court should have focused on just one market (merchant services provided by the card companies) and was satisfied with direct evidence that American Express' anti-steering rules inhibited competition in that market. But the majority's decision, as they say, is like water over the dam. The key question is what kind of precedent it will set – especially for antitrust matters involving tech platforms. My own view is that fears of its sweeping impact are premature.

One reason is that the credit card market in American Express is reasonably competitive, having three major competitors – *American Express*, Visa and Mastercard – rather than being dominated by a single provider. In addition, the majority opinion in *American Express* made clear that, for antitrust purposes, not every two-sided market constitutes a single relevant market. This keeps the door open to future challenges, assuming the evidence is there, that tech platforms could abuse any dominance they have in just one of their markets (for example, Internet search in the case of Google, as distinct from online advertising).

Meanwhile, even in unconcentrated markets, vigilant antitrust enforcement remains necessary. Although price fixing or other collusive activities are more likely in concentrated markets,³⁹ I have learned – through personal experience at both the Department of Justice and now in private law practice – of the unusual number of price fixing or group boycott conspiracies over the past several decades involving substantial numbers of competitors in unconcentrated markets. A leading excellent example is the fixing of bid-ask spreads by numerous market makers on NASDAQ in the 1990s. More recent examples are found in the banking industry since the 2008 financial crisis, where the DOJ and/or private parties have pursued price fixing or group boycott claims involving many different banks across a variety of financial instruments or their substitutes, foreign exchange,⁴⁰ benchmark interest rates used in setting rates on loans (LIBOR), and credit default swaps.

Although the overall number of price fixing cases brought by the DOJ has gone down over time, the fines it has imposed have gone up substantially.⁴¹ The “corporate leniency” program adopted by the DOJ in 1993, exempting corporations from criminal responsibility if they are the first to alert the division to unlawful antitrust activity,⁴² has uncovered collusive schemes that otherwise might never have been prosecuted. The combination of official and private antitrust enforcement – both occasionally (and importantly) aided by investigative journalists and academic research – has enhanced deterrence against unlawful conduct.⁴³

WHY ANTITRUST ENFORCEMENT CAN HAVE ONLY A MODEST IMPACT ON INEQUALITY

Growing income inequality is not only dividing our society by income; it is also becoming difficult to square with our notional commitment to ensuring equal opportunity. Economic research has confirmed what I am confident most readers already suspect or know, namely that your prospects for achieving upward mobility – both in absolute terms and relative to others, or different ways of defining “the American Dream” – depend heavily on the economic circumstances into which you are born and raised.

There is growing evidence that the extraordinary success of tech platforms, coupled with high concentrations of business activity more broadly at the local level, has been aggravating wage and income inequality in at least three ways:

1. Firms in concentrated industries tend to earn supra-normal profits or “rents,” which accrue to shareholders and, in the process, reduce labor’s share of national income. Since shareholding is concentrated among higher income individuals, higher profits accruing to them aggravate income inequalities.
2. Tech superstar firms employ disproportionately skilled workers and pay them high wages.⁴⁴
3. Recent academic research shows that wages tend to be lower, controlling for other relevant factors, in *local* markets with higher degrees of employer concentration.⁴⁵

The concentration-wage inequality linkage has both broad and narrow implications for antitrust enforcement. The broad implication is that aggressive antitrust enforcement – which generally has the effect of reducing supra-normal rents or profits earned by firms through lessened competition – should boost labor’s share of income. It may also restrain income inequality by limiting the acquisition or exercise of market power by so-called “superstar” firms. How much toughened antitrust enforcement would reduce income inequality cannot be easily ascertained, however. In any case, the impact is unlikely to rise to the importance of technological change, which has favored skilled over unskilled workers as *the* key driver of wage and income inequality, and – in the absence of mitigating policies – is likely to continue being the central driver of inequality in the future.⁴⁶

It is no accident, for example, that the fastest growing occupation over the past six years has been “data scientist” – a job that pays over \$110,000 per year.⁴⁷ That is because, in today’s economy, data has become the “new oil,” and those with the skills to analyze it and show its commercial potential are in high demand.

The narrower implication of the competition-wage research focuses on the application of the antitrust laws to specific cases. There should be no doubt that the antitrust laws apply to the labor market, as it is a “line of commerce” that can be adversely affected by unlawful restraints of trade (Section 1 of the Sherman Act) or by mergers that “tend to lessen competition” in labor markets (Section 7 of the Clayton Act). *Yet, to date, private and official antitrust enforcement has focused more heavily on product than labor markets.*⁴⁸ This should change, even though closer scrutiny of local labor markets in merger cases is unlikely to materially reduce income

inequality nationwide. There just aren’t that many mergers threatening adverse impacts on workers’ wages.

A more promising way the antitrust laws can modestly address income equality is by attacking wage-fixing arrangements, which are illegal under Section 1 of the Sherman Act. A recent example is the private class-action lawsuit brought against several of the major tech firms in Silicon Valley for agreeing not to “poach” each other’s workers – a matter that was settled and approved in 2015.⁴⁹

In 2017, Princeton professors Orley Ashenfelter and Alan Krueger published a study documenting that as many as 58 percent of the employees at the nation’s franchisees are subject to “no poaching” provisions in agreements those franchisees have signed with their franchisors.⁵⁰ Senators Booker and Warren cited that study in proposing legislation (S. 2480)⁵¹ that would ban this practice, while the Justice Department and 11 state attorneys general have opened antitrust investigations of the “no poaching” clauses. At this writing, fifteen leading fast food franchisors have since terminated these provisions.

Unlike the allegations of no poaching in Silicon Valley – which were horizontal in nature among competing companies and clearly *per se* violations of Section 1 of the Sherman Act – the claims against the franchisors have both horizontal and vertical elements. Vertical claims are assessed by courts under a “rule of reason” balancing competing factors, such as the wage-suppressing effect of prohibitions against poaching, versus the claim that the restrictions encourage employers to invest more in their employees’ training. For the most part, the workers at these low-paid jobs do not require

a lot of training, which weakens the argument that the no poaching restrictions are necessary to induce training by franchisees. Moreover, the fact that so many fast food franchisors quickly abandoned the provisions after multiple state attorneys general began investigating them strengthens the argument that no poaching restrictions affecting employees of franchisees should be banned, as they clearly would be if agreed to among just the franchisees. The case for the Booker-Warren bill, thus, is a strong one.

THE WEAK CASE FOR BREAKING UP TECH PLATFORMS

As discussed in more detail in Appendix A, Americans have long distrusted concentrations of power, both in government and business. Thus, it is not surprising that, with the success of The Four, calls have mounted that the government should somehow break them up, whether for traditional antitrust reasons – because they allegedly are inhibiting competition – or because they pose other non-antitrust related threats to our privacy, security and election campaigns.

There is a legal basis for breaking up companies under the antitrust laws. It is Section 2 of the Sherman Act, which prohibits monopolization and attempts to monopolize. Notably, that section does not prohibit monopolies themselves, but only *acts* of monopolization (or attempts at it) – namely, conduct that is not “competition on the merits.” There is no precedent of which I am aware for the government breaking up companies for the kinds of non-antitrust related reasons just listed.

Under the antitrust law, courts must approve company breakups – but only after a showing that the companies have engaged in “bad acts” worthy of such an extreme remedy, and where “conduct remedies” short of breakup are not sufficient to correct the behavior. In the nearly 130 years since the Sherman Act became law, the number of forced breakups of major companies can be counted on the fingers of two hands.

The Supreme Court invoked the Sherman Act as the basis for the 1904 breaking apart of two railroads in the Pacific Northwest (*Northern Securities*). In the mid-1940s, a federal appellate court (in an opinion by the famed Judge Learned Hand) forced the divestiture of part of Alcoa. In the 1950s, the Supreme Court required DuPont to give up its stockholding in General Motors. In the 1960s the Court forced divestitures by Grinnell (which then dominated the central station alarm monitoring business) and the United Shoe Company. In 1982, after a protracted investigation and trial, the Department of Justice entered a consent decree with AT&T that broke apart its telephone equipment manufacturing arm (Western Electric) and separated the company’s long-distance service from its local monopoly operating companies. The latter were grouped into seven “regional Baby Bells,” most of which later merged with each other. A federal district court ordered the breakup of Microsoft in 2000, separating its monopoly in operating systems (OS) for personal computers from its applications software and other business, but this decree was subsequently overturned by an appellate court.

MY MICROSOFT EXPERIENCE AND ATTEMPT AT ENCOURAGING ITS BREAKUP

I spent much of the 1990s litigating against Microsoft's abuses of its monopoly power – first, as an official in the Justice Department's antitrust division in the litigation that resulted in a consent decree governing the company's licensing practices, and later, as a private citizen urging an even more far-reaching breakup of the company than the government had asked for and the district court (Judge Jackson) initially approved. Specifically, I joined with three highly respected economists to submit an amicus brief to the federal district court in its initial remedy hearings arguing that simply separating Microsoft's OS software (Windows) monopoly from its applications software programs (notably Microsoft Office) would have done nothing to offset the entrenchment of Microsoft's OS monopoly achieved by its exclusionary conduct, nor would any conduct remedy policing Microsoft's behavior be effective as long as the company maintained that monopoly.⁵² We therefore urged the court to go beyond separating Windows OS from applications software by also breaking up the OS operations into three equal-sized companies (effectively by cloning Windows) to end the OS monopoly and allow effective competition in OS to take place immediately.

We recognized that, because of network externality effects for both personal computers and applications software developers (and possibly economies of scale), the OS market post-breakup most likely eventually would gravitate back to

monopoly, or a single winner. However, we also argued that, in the process of reshuffling the deck, the competition between the three OS companies would produce better products at lower cost. The history of security bugs and patches with Windows since have validated that claim; three Windows companies competing against each other would have increased the odds that at least one of them would have developed new versions of an OS for PCs with fewer security problems. It is true that splitting Windows into three for a new round of competition among OS companies would have raised costs for applications developers, who would have had to "port" their programs to all three OS companies (or perhaps to just the one or two the developers thought would do best). Offsetting that fact is that, because each of the three broken-up OS companies would have benefitted from having more apps written, all three OS competitors would have done their best to make life easy for applications programmers. All this competition would have benefited PC users by improving the quality and lowering the price of the OS software they purchased.

In the end, of course, it is impossible to know how the OS market would have developed under Judge Jackson's breakup order or the more radical one just outlined, since neither were implemented. Instead, Judge Kollar-Kotelly, who replaced Jackson in the second remedy phase of the case, signed off on a set of conduct remedies agreed to by a Bush-era Justice Department and Microsoft aimed at fencing

in Microsoft's OS monopoly. That monopoly continues to this day, although it has been weakened by the rise of new computing

platforms – namely, smartphones and tablet computers, where OS competition is much stiffer.

I recount my own personal history and involvement with different phases of the Microsoft investigations and litigation of the 1990s and early 2000s in the accompanying box to indicate my own sympathy, based on my professional experience, with breakup or structural remedies in monopolization cases for firms that have consistently abused their market power. *So far, however, calls for the breakup of some of today's large tech platform companies – Amazon, Facebook and Google, in particular⁵³ – do not meet the antitrust standard required for breakup, nor is there any principled justification for breaking up the platform companies for non-antitrust reasons.*

There are both economic and legal reasons for this conclusion. As a matter of economics, all three platform companies have benefited hugely from economies of scale and/or network externalities (the notion that a network tends to monopoly because the value to users rises as more join). Breaking up such enterprises into smaller pieces would bring only temporary change, because the markets in which they compete are subject to either or both these forces. Eventually, the market structure in each case would move back toward a single dominant firm (or, at most, two). As an economic matter, society gains from a breakup only if – during the transition back toward monopoly or oligopoly – reintroducing competition induces the ultimate winner(s) to provide even better and/or lower cost services to purchasers that outweigh the potentially higher costs that breakup very likely would entail during the transition (reduced

benefits of network externalities and economies of scale). My own judgment is that cloning Microsoft Windows OS into three pieces, as discussed in the box, would have met this test. Breaking up any of the major tech platform companies would not. At the very least, I have seen no compelling evidence to the contrary.

While the economics of breakup are interesting, ultimately the law is what matters most. Under the antitrust laws – and the judicial decisions that have interpreted them through the years – we can't even get to the breakup question unless it is established that a monopoly has somehow abused its dominant position through some *bad conduct*, and that the harm to the marketplace can be cured only by breaking up the monopolist rather than prohibiting its bad behavior (perhaps with some supplemental "fencing in" requirements to keep it from happening again). The antitrust laws do not – nor should they – punish a firm for acquiring dominance in a market because of a superior product or service and/or luck.

Let's go through each of The Four and see, first, if there is any evidence of consistent abusive conduct of monopoly power of the kind evidenced by Microsoft in the 1990s, and second, if that conduct (assuming it is present) justifies an extreme breakup remedy.

I haven't seen a credible claim or evidence that either Apple or Facebook has abused any of their market power. Facebook's mishandling of its users' data, which I discuss later, can and should be addressed through other means, and is not

an antitrust violation. In theory, an argument can be made that companies like Facebook and Google (to be considered shortly) benefited from approvals of various acquisitions along the way. But, *at the time* of these mergers, given the state of applicable merger law, it is difficult to claim that any court would have blocked such acquisitions.

Consider Amazon next. In a later section, I rebut claims that Amazon has abused its alleged monopoly power through alleged predatory pricing. I note here that, even if online retailing is its own distinct relevant market – and this is a subject for dispute – Amazon reportedly controls 44 percent of the spending in that “market.”⁵⁴ This market share is well below the minimum 60-70 percent courts have required in a successful attempt-to-monopolize or monopolization cases brought under Section 2 of the Sherman Act.

To be sure, there are narrowly defined product markets, such as U.S. e-books, where Amazon’s market share likely exceeds 80 percent, and clearly is dominant. In such markets, the question then is whether the company is doing anything to abuse that dominant position. On the surface, it is hard to detect a problem. Amazon displays its own new books directly with offers for used books at much lower prices (even with shipping included) offered by a range of third-party sellers. There is not even a question of “search bias” in these displays.

Nonetheless, one complaint about Amazon in other product markets is that it is “destroying” the business of brand-name suppliers by offering Amazon’s own (expanding) private label goods.⁵⁵ This is no different from practices

by other retailers like Costco and Kroger. The article that raises this issue has a quote from Galloway essentially acknowledging – to the extent Amazon’s private labels are cutting into sales of branded products – that they are wringing out a price premium those brands have long enjoyed but which many economists have also long criticized for penalizing consumers. *In other words, Amazon’s success in devaluing brands benefits rather than harms consumers.*

Moreover, Amazon does not appear to exclude other name brands from its site. I tried entering several popular consumer products in Amazon’s search engine – such as televisions and even batteries (which are mentioned in the article) – and found nothing of the sort. It is true that Amazon may show its own private label brands first, but immediately below are brand names. This practice is analogous to the way Google displayed results from its own product comparison “vertical search engine,” until it changed its practice after the EU’s decision condemning it, as discussed next.

But Amazon’s landing pages are designed very differently from Google’s. Amazon shows products in order as one scrolls down the page; it doesn’t have the equivalent of a “right-hand side” for the company’s own products or third-party ads, which don’t fit with Amazon’s business model – which is to sell products directly and earn the revenue therefrom, rather than from hosting ads as Google and Facebook do.

Yet how is Amazon’s showing of its brand names first in its page formats an antitrust violation? Amazon’s share of online sales for

certain products in which it offers its own private label goods may be substantial enough to constitute dominance or even a monopoly, but it is far from clear whether a court would define the relevant antitrust market so narrowly, rather than taking account of offline sales as well – which certainly would bring down Amazon's market share (name-brand batteries, like other brands, are sold in a wide number and variety of physical retail locations such as grocery stores and pharmacies).

Moreover, where else would a court have Amazon's private label brands shown – third, fourth or fifth – and on what basis would a court engage in such micro-managing? The same goes for ordering the company to completely redesign its Web site pages to look like Google's or Bing's search engines and show results of third-party offerings on the left-hand of each landing page, and the company's offerings only on the right, as Google now does. Would this fundamentally change things? And does it really make any difference if a customer – who is looking for an item such as batteries, and prefers a name brand like Duracell – is shown those options right below the cheaper Amazon private label brand? These are the kinds of questions a court would have to answer in determining whether Amazon's private label displays somehow constitute abuse of any market power it would have in narrowly-defined online-only product markets.

But, if a court could somehow reach such a finding, would it merit *breaking up Amazon*? Into what? One company and Web site that offered only third-party items – in markets where the company's online market share rose above some threshold level, which would require constant monitoring and readjustment – and another Web site offering only Amazon's private label goods?

That separation would destroy a fundamental advantage *to consumers* of being able to browse a single site and comparison shop across all brands. To pose such hypotheticals almost self-evidently answers whether a court would seriously entertain breaking up the company in this or any other manner. I seriously doubt even the most pro-plaintiff judge – let alone the Supreme Court – would order a breakup of the company for this reason.

That leaves Google. As discussed earlier, the EU's Competition Directorate has found, under EU competition law, that Google has abused its market dominance by deliberately biasing its Internet search results in favor of its own price and product comparison features, and imposed a large fine on the company, which is under appeal. On May 21, 2018 – one day after the popular CBS show "60 Minutes" aired a segment giving voice to antitrust concerns about Google's search activities – Treasury Secretary Mnuchin called on U.S. antitrust authorities to take a closer look at the practices of dominant Internet platform companies. The same day, Yelp, a U.S.-based ratings service for service providers, filed a formal objection with the EU also alleging search bias by Google. In addition, in July 2018, the Competition Directorate found that the company abused its market power in mobile phone operating systems by tying some of the company's functions such as search and various apps to the Android OS.

Before discussing these issues, it is important that readers be aware of my own prior history with Google's "search bias" issue. As very briefly indicated earlier, in 2012, my co-author Hal Singer and I were engaged by Google to examine whether it was appropriate to invoke *Section 5 of the FTC Act* (which prohibits "unfair trade practices") to condemn Google's practice

of showing its “specialized” product price comparison search results above other rival search comparison sites (a different allegation from concerns Google may have violated the anti-monopolization provisions of Section 2 of the Sherman Act). We concluded then, among other things, that Google’s practice did not violate the vague standard of the FTC Act: that specialized search is not a distinct product market from Google’s broader “universal” search functions, that Google’s placement of other comparison services just below Google’s did not constitute unlawful exclusionary behavior, that Google’s main search rival (Bing) engaged in the same practice as Google (ranking its own product comparison results above others),⁵⁶ that applying Section 5 to Google’s ranking practices would threaten innovation by other companies, and that Google’s practice did not harm consumers, because all Google search functions are free.⁵⁷

The FTC later reached similar conclusions, finding that Google’s elevation of its own price comparison results was designed to improve its service, and, while any incidental harm to rival services may have harmed competitors, it did not harm competition or injure consumers.⁵⁸ The Commission separately reached an agreement with the company, however, prohibiting it from taking online content from rival comparison services to use in its comparison searches, while requiring Google to give competitors reasonable and non-discriminatory access to its patents on critical standardized technologies for making smartphones and other consumer devices, and to give online advertisers more flexibility to manage their AdWords campaigns on Google’s platform.⁵⁹

Most importantly, in response to the EU’s decision against the company for favoring its own shopping comparison service over rivals,

Google has since allowed those other sites to bid for ad slots in auctions against Google’s own comparison service, which it has taken out of its regular search results and put in the ad section on the right-hand side of its search results pages. Google has also put its own ratings of various services, such as those for restaurants and hotels, on the right side.

These actions make it difficult for antitrust authorities in the U.S. to bring a winning case against Google for search bias – let alone persuade a court to break up the company – now that the company has changed its reporting of general search results. This is especially true given the following facts about the extent of Google’s dominance in Internet search. Although Google’s search engine is used on 90 percent of all searches, its share of *product comparison* searches – which is relevant to any allegations of search bias – is far lower, nowhere close to any level one might say is “dominant.” Only one in six product searches begin with Google, versus 55 percent on Amazon.⁶⁰ I have not found a reliable source for Google’s share of online travel, but readers will know it has plenty of competitors, including Orbitz, Expedia, and Priceline. As for ratings services, I know of Yelp, Home Adviser (for contractors), and Angie’s List (for multiple contractors and handy people) – all of which compete with Google, though I do not know of Google’s “market share” in this special line of activity. The bottom line: Even if Google had not changed its display of results from so-called vertical searches in response to the various charges against it, Google does not have the market power in product search that, under applicable U.S. case law, is required for a finding of abuse of monopoly power.

What about the EU Competition Directorate's finding of Android-related tying claims? Specifically, if U.S. antitrust authorities were to mount a similar challenge and if the courts were to reach the same conclusion as the EU – that Google was, in fact, tying some of the company's other functions to the Android OS and that this violated Section 2 of the Sherman Act (or the anti-tying provisions of the Clayton Act) – would it necessarily warrant a divestiture of the Android operations from the rest of Google's parent, Alphabet?

It is true that Android has about an 85 percent share of the mobile OS market, with Apple and the iOS system in a distant second place.⁶¹ Splitting off Android from the rest of the company would do nothing to affect Android's standalone market power – though such a split would give Android stronger incentives to bundle non-Google functions or simply to give mobile phone users a choice of what apps they want on their phones. But that last step can be taken through a conduct remedy that simply bans Google from tying its own features to the Android OS – which, in effect, the EU has done – without breaking up the company. Violations of such a prohibition (formally an injunction) can be made severe, not only through financial sanctions against Alphabet but by forcing bundled Android OS software off the market until any bundling is eliminated. A conduct remedy is thus the least restrictive course necessary to stop any unlawful bundling a U.S. court might find. Moreover, unlike the Microsoft case, which was subject to two DOJ investigations for abuse of monopoly power. Google has not had any prior findings or consent decrees in the U.S. regarding its Android practices. This is another factor that courts would likely find tips the scales in favor of a conduct remedy rather

than a structural one if Google's Android-related conduct were found to violate U.S. antitrust law.

What about breaking up the two tech platforms that now dominate online advertising – Facebook and Google – simply by reversing certain acquisitions each used along the way to help establish their dominance, but which, at the time, nonetheless were not challenged by the government?⁶² That appears to be the implicit recommendation of some participants at a June 2018 forum held by the Open Markets Institute and reported by Sara Fischer, writing for Axios.⁶³

- For Facebook, the key approved acquisitions were Onavo (that enables Facebook to know which applications are drawing the attention of Facebook users, and thereby to buy or build similar applications), Instagram (a Twitter-like service that could have been a rival social media platform), and WhatsApp (a messaging service that also could have been a Facebook competitor).
- Google's approved acquisitions included DoubleClick (a company helping ad buyers),⁶⁴ AdMob (a firm facilitating mobile ads), and AdMeld (an advertising optimization platform for publishers). The article could have added Google's acquisition of YouTube to this list.

Given the state of U.S. merger law, it is doubtful that – even if any of these acquisitions had been challenged by the government at the time – any court would have upheld the challenge. In the case of the acquired companies whose platforms grew to be much more successful, that is only evident with 20/20 hindsight, which courts asked to approve mergers do not have the luxury of having. Moreover, each of the acquired platforms became more successful after its acquisitions – at least partly because of the resources devoted by Facebook or Google

to making them successful. Finally, and perhaps most importantly from a practical perspective, now that each of these acquisitions has been integrated with the operations of each tech platform, it would be very difficult – some might say impossible – to “unscramble the eggs” in a way that could assure that the spun-off company would be a viable competitor in the marketplace.

A similar logic applies to airline mergers. Although, in retrospect, it's easy to criticize the Justice Department for approving so many airline mergers that have since led to that industry's high degree of concentration – the top four airlines now control about 80 percent of the nation's passenger air traffic – Justice did not have law on its side to make those challenges. That is because each of the acquisitions was overwhelmingly conglomerate in nature (apart from the occasional few overlapping routes where divestitures were required), and the case law has not supported challenges to conglomerate transactions. Moreover, unscrambling the eggs of the merged airlines in an effective manner, given the integration of the merged companies, at this point also likely would be very costly. Perhaps it would be impossible.

The best that can and should be done on the merger front is to change merger law going forward so the authorities and courts can halt *future* mergers that risk reducing competition – a greater concern now given the modest lessening of competition that has already occurred in parts of the economy. Ideas for doing this are discussed in a later section.

A different set of arguments, essentially grounded in both the antitrust laws and the First Amendment, have been advanced for

breaking up media giants to ensure the public hears a diversity of views. One possible, though extreme outcome, is that Facebook and Google eventually host, in some fashion, 90-plus percent of the “news” in this country. But, even were that the case, neither platform is in the *news generation business*, but rather in *news curation*, so each site aggregates news and information from a wide variety of sources. But could Facebook and Google one day vertically integrate into the *news generation business itself*, and eventually come to dominate it as the two now dominate online advertising? Yes, that is a possible outcome – and one that might call for then breaking up the two companies, though the mechanics of how this would be done I (and others) have not fully thought through. In any event, at this point, and for at least the near future, this is a hypothetical rather than a real problem.

Finally, there is no sound basis for breaking up any of the tech platform companies for the non-antitrust reasons I address later in the essay – privacy, security, and preservation of the integrity of election campaigns. To be sure, the concentration of data held by various private firms exposes individuals and society to greater risks, since data leaks at any one of these entities would have wider impacts than if data were more dispersed. But these dangers are analogous to those our society faces in other contexts: for example, the risks posed to all of us from a cyber- and space-based electromagnetic pulse attack to the nation's electricity grid, to which our homes and places of work are connected. These risks can be reduced (though not eliminated) by hardening the plants and grid against these attacks and by having “shut off” switches that insulate or uncouple parts of the grid from other parts that may be disabled

or “infected.” Yet no one seriously thinks, nor should they, of *preemptively* dismantling the nationwide electricity grid and replacing it with locally-based generating systems unconnected by transmission lines to any other localities. The reason preemptive breakup of the grid is unthinkable is that the costs to society – and especially to many less-populated areas of the country – of doing so would be too high.

Much the same calculus militates against the preemptive breakup of any one or more of the large tech companies – or of other non-tech companies that have huge warehouses of highly sensitive data (those in the financial and health sectors, for example) – simply because of the risks posed by the unauthorized use or theft of these data. As already discussed, court-ordered breakups of companies for antitrust sins have been rare in our history, and the net benefits of preemptive breakups of companies simply because they warehouse a lot of data are dubious at best. Were Congress somehow to order this result, it is not clear what company (in or out of tech) would be safe from breakup – a prospect that would severely chill innovation and expansion by large numbers of companies in our economy.

HOW RADICAL OVERHAUL OF ANTITRUST LAW COULD BACKFIRE

Multiple ideas for reforming the antitrust laws and enforcement priorities under existing law have been suggested in recent years. How one should think of them depends on the nature and severity of the problems any reforms are seeking to remedy.

For example, if it is true that the economy faces a dire concentration and rising monopoly problem that is threatening the dynamism of our economy while contributing importantly to

increasing wage and income inequalities, then more radical reforms would be needed. For lack of a better term, I will call those sympathetic with this view “antitrust populists.” If, however, the competition problem is moderate, causing moderate harm – or if the radical cures could impose new, possibly unintended dangers or risks of their own – then a more finely targeted or measured response is more appropriate.

I believe the evidence warrants support for the latter view. A significant decline in economy-wide competition, where it often counts at the local level, has not been clearly established. Moreover, and more importantly, any antitrust reforms – including, most aggressively, the preemptive breakup of certain dominant firms – are unlikely to move the needle much on any future increases in income inequality driven by continued tech-driven advances favoring skilled workers. Antitrust reforms instead should be adopted only if they promise better outcomes for purchasers of goods and services (consumers and businesses alike) without running significant risks of causing unintended harm to the competitive process.

Nonetheless, some Democrats may believe it is in their political interest to support one or more “antitrust populist” measures – to be outlined and critiqued shortly – as a means for cutting “Big Business” down to size, just as President Trump has scored political points among his base for sounding and acting “tough” on trade and immigration, and as Republicans have long been associated with their critique of “Big Government.” Populist Democrats believe that attacking big firms will fire up their base and appeal to some independent and Trump voters. By criticizing companies that are not widely popular (such as “the cable companies” and “airlines,” to take just two obvious targets),

Democrats may be able to convince some voters not in their core base who don't like "anything big," that they have more to fear from big companies – especially those that can be labeled "monopolies" – than from Big Government. Along the same lines, by arguing that big firms in concentrated industries are making it more difficult for smaller and newer businesses to compete – even if this is true for efficiency reasons unrelated to any unlawful activities – some Democrats may believe they have a shot at appealing to small business owners who tend to vote Republican.

On purely political grounds, Democrats who are counting on antitrust populism to expand their base may overstate the potential for that result. That's because – in much the same way President Bill Clinton stole some of Republicans' thunder on welfare reform – President Trump already has hopped on the "tough antitrust bandwagon." Trump, not Democratic politicians, was the first to attack Amazon for, among other things, crushing small businesses and the "Main Street" shopping areas and retail malls in which many of them are located (as Walmart did before it), hinting that either an antitrust investigation would be initiated against the company or a proposed change in the law would allow that to happen. In addition, it was the Trump Antitrust Division that challenged – but lost before Judge Leon in federal district court – the merger of AT&T and Time Warner, a decision that Justice has since appealed. And the FTC, headed by a new chairman appointed by President Trump, Joseph Simons, has vowed his agency will pursue an active antitrust enforcement and data protection policy, and has announced hearings to begin this fall on whether and how to adapt antitrust enforcement policies to the new business landscape.⁶⁵

Three specific ideas for antitrust reform advanced by antitrust populists – however politically attractive they may appear to some – lack merit when scrutinized more closely. I consider each in turn.

Protecting Competitors More than Competition and Consumers

In the early decades after the Sherman Act was enacted, some court decisions gave substantial weight to whether a challenged practice hurt other competitors – specifically, smaller businesses – and were inclined to punish firms engaging in the practice even if it benefitted consumers. Supreme Court Justice Louis Brandeis provided much of the intellectual firepower for this view. As outlined in greater detail in Appendix A, since the publication of Judge (and former law professor) Robert Bork's *Antitrust Paradox* in 1978, antitrust prosecutors and courts have since moved away from the Brandeis view, taking the position that antitrust laws – specifically the anti-monopolization and anti-merger provisions of the Sherman and Clayton Acts, respectively – are best understood as rules aimed at protecting the *competitive process* and consumers (or, in the case of business customers, *purchasers*) rather than *competitors*. The "consumer welfare" approach, as it has come to be known, thus embraces the view that vigorous competition necessarily means firms with superior products and services – or those that are most efficient – will drive out less innovative or efficient competitors. The antitrust laws, in this view, should encourage (or at least allow) this process to continue, and not impede it.

This is now the prevailing view in U.S. antitrust jurisprudence, but not in Europe – specifically, Section 82 of the EU's Competition Law aimed

at preventing abuses of market dominance. For one thing, the EU law prevents abuses by “dominant” providers, which is a more relaxed standard than in Section 2 of the Sherman Act, which polices *monopolies* or *attempts* to “monopolize.” Second, EU authorities are willing to look at dominant firms’ intent to harm other competitors – something U.S. courts tend not to do. Third, while the EU requires claims of predatory pricing to be backed by evidence of sales below “average variable costs,” as does the U.S., the EU does not require, unlike U.S. courts, that challengers prove that the dominant firm or monopolists will be able, through high entry barriers for example, to “recoup” those losses later.⁶⁶

Perhaps the most thorough and comprehensive case for adopting the Brandeis view (and moving in the European direction) has been articulated by Lina Khan of the Open Markets Institute,⁶⁷ whose student note written for the *Yale Law Journal* in 2017 has been widely cited and is generally credited with providing much of the intellectual firepower for the “antitrust populists.”⁶⁸ Precisely because of this article’s prominence,⁶⁹ I give it considerable attention here and in the following sub-section.

It is difficult to overstate the importance and breadth of Khan’s broad attack on the now widely used “consumer welfare” approach to applying to antitrust law. That approach has been embraced not only by antitrust enforcement officials in every administration – both Republican and Democratic, since the Reagan administration – but also, as Khan notes, by consumer advocate (and former Presidential candidate) Ralph Nader. Nonetheless, she bravely advances two critiques.

Narrowly, she seems to assert that the current consumer (more accurately, purchaser) welfare standard does not adequately take account of non-price factors, such as product quality or innovation – which just isn’t true. Indeed, Khan concedes that non-price factors were considered by the Obama Justice Department in evaluating certain mergers. She is unhappy this hasn’t been true outside the merger context, but that is because price-fixing cases, by definition, don’t involve quality issues. It is also highly unlikely that firms that are not already possible candidates for Section 2 cases because of their dominance, measured in purely monetary terms, somehow would be considered as dominant if only non-price factors were added to the equation. Moreover, I will go out on a limb and suggest that, if Bork were alive today, he would concede that non-price factors such as quality are valued by consumers. In any event, with the much greater sensitivity about data-related issues and the concentration of data warehouses in the wake of the Facebook saga, it is reasonably (if not highly) likely antitrust enforcement officials – and, eventually, the courts – will pay greater attention to the impact of firms’ activities (mergers or otherwise) on one key non-price factor, customers’ privacy, in the years ahead.⁷⁰

Khan’s broader attack is against the prominence of consumer or purchaser welfare itself – outlining a full-throated rebuttal to Bork’s legislative history of the Sherman Act. She points to evidence that, in enacting the Sherman Act, Congress was as concerned about the concentration of economic and political power *for its sake*, and its impact on smaller competitors and on democracy, as it was about ensuring lower prices. In effect, Khan argues that

Congress gave at least give equal weight to both *producer* and *consumer* impacts. Bork's book makes a contrary case. I do not think it is necessary to decide who is right on this score. I think it's a draw. Others may reach a different view.

The relevant *practical* question is how judges are to interpret the words written into the antitrust statutes *in fact-specific individual cases*. Should they adopt the broad but unfocused approach Khan and her intellectual predecessors advocate? Or should they stick with the now-four-decade-long approach adopted by courts of asking whether a specific practice or merger hurts *consumers or purchasers*? Bork's main thesis in his *Antitrust Paradox* is that – at least under a consumer welfare standard (even if broadly expanded to include non-price factors) – courts can reduce their analysis to whether consumers are hurt or harmed. Under a much broader standard, as I will later outline in connection with proposals to broaden the considerations for assessing mergers, courts have no basis under the current antitrust laws for how to *trade off or weigh* the consumer, producer, and political (impact on democracy) effects of any given business practice alleged to be anti-competitive.

Beyond the legal issue, there is the fundamental policy question of what interests the antitrust laws, or more generally, the system of market capitalism should serve. The premise of modern economics as we know it, dating from Adam Smith, is that markets and firms exist to enhance the welfare of everyone who buys goods and services. Firms are merely the vehicles for satisfying consumer wants. So long as the rules for competing (and regulating where externalities warrant) are clear, societies can count on the entrepreneurial spirits of

individuals and the firms they establish to satisfy those wants. Firms, in turn, hire workers – and our labor laws protect their safety and ability to organize (form unions) to counter the market power of firms. But, where market power manifests itself in the markets for goods and services, then the law, on the view of the economy just outlined, should protect them. That's why we have antitrust laws.

A producer-centric view of capitalism, on the other hand, either would leave consumers at the mercy of firms with market power or markets with inefficient firms because the competitive process will not have been permitted to weed them out. Khan and other antitrust populists seem willing to accept some (it is not clear how much) inefficiency as a price to pay for simply having more firms around. But make no mistake: Tolerating inefficiency means consumers will be worse off – paying higher prices now and in the future and not enjoying some improvements to current products or entirely new products and services – because tolerating today's inefficiency reduces incentives for tomorrow's innovation.

Changing the Law on Predatory Pricing

In addition to backing a return to the Brandeis view of antitrust, Khan has pressed for a change in the current antitrust standard against predatory pricing – an unlawful activity punished by Section 2 of the Sherman Act – by specifically focusing on Amazon's pricing behavior.

Khan acknowledges the huge success of Amazon's business model – so successful that some criticism of the company reminds me of the attacks a generation ago on Walmart for hollowing out Main Street. Only now Walmart itself faces disruption, although in recent quarters it has been gamely fighting back;

such is the power of Schumpeterian creative destruction. Khan also admits to the benefits Amazon has provided for consumers *so far*.

Nonetheless, she argues that Amazon is pricing below cost now with the objective of hiking prices later and should be restrained from doing so. She points to three major pieces of evidence to back up this claim: (1) the company's long history of losing money, putting growth ahead of profits; (2) the company's selective discounting of e-books; and (3) the company's Prime membership service, to which about half of American adults already belong, making its Web site especially sticky and thereby blunting consumers' interest in comparison shopping on other sites. Eventually, whenever it decides to do it (so the argument goes), Amazon will begin charging monopoly-level prices. Khan claims both that Amazon is currently engaged in predatory pricing and is *recouping* any losses from that practice in various ways to be discussed, but also argues the recoupment prong of the current predatory pricing standard in U.S. law should not apply to dominant online platforms like Amazon (notwithstanding that Amazon's 44 percent share of online retailing is not "dominance" under prevailing antitrust case law).

Economists and the courts are clear in rebutting Khan's first critique: it is not predatory for companies to sell below their *average total costs* but above their *average variable costs* (AVC), because any price in between these levels will contribute to covering fixed costs, and thus is rational and competitive behavior. None of the extensive citations in Khan's article to Amazon's sales "below cost" document a systematic pattern of the company selling below AVC. This includes allegations that Amazon's aggressive

discounting of diapers eventually forced online diaper company Quidsi into Amazon's arms through acquisition – and then Amazon raised diaper prices somewhat. Although the article has one reference from a Quidsi executive that Amazon was going to lose \$100 million in three months through its discounting, there is no indication this "loss" was based on a comparison of Amazon's prices to AVC, nor is any other evidence supplied that this was the case. More broadly, toward the end of her article – where Khan urges that the recoupment requirement be dropped for online platforms – she sidesteps the issue of what "cost" measure should be used to determine "below cost" pricing, even though that is the central issue in defining predation. If Amazon is not systematically pricing below AVC, it can't be engaged in predatory pricing – with or without a recoupment test.

Khan nonetheless argues that *selective discounting* should count as illegal, focusing on Amazon's occasional discounts for certain e-books. She specifically critiques the Justice Department and one federal district court judge for excusing that practice on grounds that the company's e-book business *in the aggregate* is profitable, and that any selective below-cost sales are nothing more than permissible "loss leaders" aimed at enticing people to shop for other things while on Amazon's Web site. Khan distinguishes Amazon's "loss leading" from the loss leaders grocery stores routinely use because of Amazon's lock-in effects: once you buy the company's e-book reader (Kindle), which has become the dominant way people read e-books, you are locked into buying other books from Amazon, and more generally as to other products, through the power of the Prime membership.

Khan may be right about Amazon's e-book pricing – especially about her claim that Amazon already may be recouping its losses by charging some consumers higher prices on hard-to-get books and book publishers' higher fees to list with Amazon. But this may also be nothing more than lawful price discrimination. Perhaps anticipating this objection, Khan urges courts to reject the practice anyhow by not using the recoupment standard for analyzing Amazon's pricing because it is so complex: "Constant price fluctuations diminish our ability to discern pricing trends. By one account, Amazon changes prices more than 2.5 million times each day."⁷¹

Khan is right to say the predatory pricing doctrines did not envision markets – specifically, online markets – where prices can and do change so frequently. But that is precisely why prosecutors and courts should not be engaged in the weeds of comparing *every single price on every single book to its AVC on these platforms*, but instead should look to *aggregate* measures to determine whether below-AVC pricing is systematic. To do otherwise would require a small army of regulators to police every transaction – much as would be required if grocery stores could not "loss lead."

As to Amazon's non-book products, Khan implies Prime memberships will dissuade consumers from shopping elsewhere if the company begins to charge excessive or "supra-competitive" prices. This claim, however, ignores that once (or even before) Amazon starts engaging in that practice – and it won't be a secret because other virtual and brick-and-mortar retailers and the media will publicize that fact – consumers can go to other product and price comparison sites, including the search engines of Google and Bing, and quickly learn whether they are being ripped off. Indeed, the *Washington Post*,

which is owned by Amazon's founder and CEO Jeff Bezos, ran an article shortly after Amazon announced an increase in its annual Prime membership fee from \$99 to \$119 in April 2018 – which some could interpret as an effort by the company at recoupment, even though the company has defended the increase by pointing to the enhanced value of the Membership and rising delivery costs – that suggested various ways consumers could avoid the increase. One of those methods was turning to other online Web sites, including Target and Walmart, among others.⁷² In addition, the pro-competitive impact of Google's price comparison service and that service's role in keeping Amazon and all other retailers in check, is one that Google's critics (and the critics of Amazon's pricing policies) should keep in mind. As for Amazon itself, its pro-competitive effect in reducing prices throughout the economy has been so significant that it has been recognized by Fed Chairman Jerome Powell.

Khan has a ready answer for this counter-argument: Amazon's stock price in relation to its earnings (its P/E ratio) is sky high because investors expect that eventually Amazon will have a monopoly and thus recoup any losses it has suffered thus far. That may be what many investors seem to expect. However, it can be just as reasonably argued that the company's high P/E reflects investors' expectations of rapid earnings growth, from a very low level, toward a "normal" return on invested capital – as the company's efficiency gains from its scaled expansion and vertical integration flow through to Amazon's bottom line.

It is also possible that Amazon's investors are wrong and, yes, that stock prices are not as efficient as defenders of the "efficient markets hypothesis" claim – a broad position advanced

by many other behavioral economists, including two Nobel laureates (Robert Shiller and Richard Thaler). Indeed, stock prices sometime can become bubbles: just look at what happened to many sky-high stock prices of the “Nifty Fifty” stocks in the 1970s after many analysts had claimed earlier that the prices of those hot stocks would only continue to rise, or the bursting of the Internet stock price bubble in 2000.

To be clear, I’m not saying Amazon’s stock, in fact, is in bubble territory, for I have just offered an earnings-based explanation – one not dependent on monopoly pricing – for its current P/E. I am simply arguing that one can’t prove recoupment simply by looking at a company’s stock price – a position consistent with judicial rulings about recoupment, as Khan herself seems to acknowledge. That position also makes sense since, otherwise, if recoupment is to be inferred from high P/Es, a lot of growth companies with high stock prices but current low profits (or even losses) – again, think of the many early Web-based companies whose stock prices collapsed in 2000 – could find themselves in the antitrust cross-hairs, a nonsensical outcome.

At the end of her article, Khan urges that, if antitrust law can’t rein in Amazon, the company ought to be regulated as a public utility, given the current and growing market power of its platform. She acknowledges the political difficulty of doing so – a point I would reinforce by noting that so many Americans have been voting with their fingers and dollars and using Amazon. They apparently like its low prices and great convenience. “Low prices”? Those two words clearly are inconsistent with public utility-style regulation, which is imposed to prevent monopolists from charging *high* and *excessive* prices. Amazon may one day get to that point,

if I am wrong about the ability of consumers to comparison shop and its monopoly power becomes clearly established. However, we clearly are not yet there, and Khan’s own criticism of the company – of putting growth ahead of profits (and thus, implicitly, high prices) – is the best evidence for that fact.

Finally, Khan and others (including President Trump) also have argued that Amazon achieved its success due to its ability to sell goods across state lines to consumers who do not have to pay sales taxes. While Amazon benefitted from that practice in the past – due to the Supreme Court’s decision in *Quill v. North Dakota* that required collection of sales taxes only in places where firms have a physical presence – since 2017 Amazon has been collecting sales tax on its own goods in all states that have them. That has not been true for many, perhaps most, of the companies selling goods on Amazon’s platform.

In June 2018, the Supreme Court overruled *Quill in South Dakota v. Wayfair Inc.* In the short run, the *Wayfair* decision is likely to hurt numerous smaller companies Khan and other antitrust populists want to protect, because any company selling online must now find a way to navigate the complexities of thousands of state and municipal sales taxes (which vary by items and amounts of commerce covered). My own prediction is that Amazon, in hosting many of these firms, sooner or later will offer tax compliance services as part of its platform access, but charge for it in the process. Ironically, the *Wayfair* decision could end up providing a new revenue stream for Amazon, while driving more companies to its platform, and leaving Amazon to continue to benefit from its principal market advantages – convenience and rapid delivery – that have powered the company's success and made it so popular with consumers.

Broadening the Standards for Opposing Mergers

Given the risk that competition has lessened outside of consumer products sectors, there are grounds for toughening standards for approving mergers so competition isn't further diminished through business combinations. But it is important to "get tough" in the right way. Not all mergers hurt consumers, and the law should not produce that result. For this reason, I discuss in a later section some targeted reforms that increase the odds of anti-competitive mergers being stopped, while still permitting other mergers to be completed. But here I concentrate on merger reforms that would move merger law in the wrong direction.

For example, one proposal for stiffening the current legal standard in the Clayton Act for halting mergers whose effects "may be substantially to lessen competition, or to tend

to create a monopoly" would significantly expand the list of factors courts must consider – implicitly making it more difficult for them to pass judicial muster. This is the approach proposed in the Better Deal Plan backed by leading Senate Democrats: to add to the "substantially lessen competition" language such other factors as a merger's potential impacts on small businesses, wages, employment, and consumer data privacy. Mergers above a certain size presumptively would be anticompetitive, with merging parties having the burden to prove that efficiencies, synergies, and other pro-competitive benefits outweigh any anticompetitive harms.⁷³

The Better Deal proposal goes too far. For one thing, it is internally contradictory. Requiring the enforcement agencies to account for any job cuts the merged firm may be planning to eliminate redundancies – which presumably could be a basis for simply rejecting the merger – is inconsistent with allowing the merging firms to justify their deals on efficiency grounds.

Second, asking the enforcement agencies to balance multiple factors, in addition to their longstanding directive to assess the competitive impacts of merger, essentially amounts to giving the enforcement bodies and the courts no guidance at all. There is no instruction in the proposal (on what basis could there be?) on how courts are to balance the multiple factors against each other, assuming they could all be easily reduced to a common metric, which they can't since the whole point of the plan is to require, without any guidance, courts to *trade off* potentially lower prices from mergers due to efficiencies against the pain of job cuts at the firm or at other firms (especially smaller businesses) that may result from a merger. Moreover, enlarging the number of factors to

consider in assessing mergers would greatly expand prosecutorial discretion, which very likely would lead to wide variations in enforcement postures from administration to administration (depending on which factors each wished to emphasize). The result would be less – conceivably much less – predictability in how antitrust merger standards are applied.

Third, by directing *competition* enforcement agencies to focus on harms to a specific class of *competitors*, namely small business, the Better Deal’s antitrust proposal (and, to a lesser degree, the preamble of S. 1812, which states the protection of small business as an objective) would reverse longstanding Supreme Court precedent holding that the purpose of the antitrust laws is to protect competition, not specific competitors.⁷⁴ Competition can be (and often is) brutal, but it is the mechanism by which firms are incentivized to innovate and to produce products and deliver services at the lowest cost. In the process, some firms get out-competed by others; that’s Schumpeterian “creative destruction.” One major problem with the U.S. economy in recent years is that it has been insufficiently creative and destructive, and that the dynamism that is required for innovation has declined. Telling antitrust enforcers – either in the narrow context of assessing mergers or in weighing the actions of dominant firms – that they should view creative destruction as a threat would thus slow down economic growth.

HOW TARGETED ANTITRUST REFORM CAN BOOST COMPETITION

While radical change in the antitrust laws and enforcement strategies is not warranted, there are several *targeted* legislative reforms and suggestions for antitrust enforcement agencies that can better prevent anti-competitive abuses and maintain competition.

Updating Merger Standards

Although the DOJ and the FTC have long been active in opposing or modifying horizontal mergers (those between direct competitors in the same relevant product and geographic markets) that threaten to reduce competition, the two agencies have been less aggressive about pursuing vertical mergers (those involving firms in different parts of the supply chain) and conglomerate mergers (involving firms in different geographic and/or product markets). These merger enforcement priorities reflect judicial decisions, although Professor John Kwoka recently has provided evidence that the enforcement agencies have not strictly adhered to their Merger Guidelines in challenging all horizontal mergers in highly concentrated industries – some of which retrospective studies have established resulted in anti-competitive effects.⁷⁵

Using the same type of logic used by Professor Kwoka – comparing the costs of committing different types of errors – I outline below several ways in which it is both possible and desirable to strengthen antitrust enforcement in a prudent fashion for each type of merger, not just those involving direct competitors.

Vertical Mergers

The federal district court’s approval of the AT&T-Time Warner merger – the first vertical merger the government has challenged in court in four decades – illustrates the judiciary’s receptiveness to arguments by merging parties that vertical tie-ups generate cost savings that are not likely to be outweighed by discrimination against third parties, in the absence of hard proof of the latter.

Critics of the district court opinion assert – and the Justice Department on appeal argues – that the court took insufficient account of the risks that, as it has dominance in some markets as a television provider, AT&T would have incentives to withhold the acquired content of Time Warner (HBO, CNN, and other channels) from other television delivery systems, such as rival cable TV providers, as well as find ways of favoring the acquired content over competing content. Judge Leon dismissed the proposition advanced by the government’s witness, Professor Shapiro, that, by the virtue of the merger, AT&T would gain additional *bargaining leverage* that could translate into higher fees paid by content providers, even if AT&T charged those same fees to its Time Warner programming arm. It is precisely that kind of possibility that amounts to an “incipient threat” to competition that the case law under Section 7 of the Clayton Act makes clear that Section 7 was designed to prevent.⁷⁶

At a minimum, Justice should have asked the district court for the same type of non-discrimination requirement as the one the Department had imposed as a condition for approving Comcast’s acquisition of NBC Universal. Instead, Justice gambled on an all-or-nothing outcome. This reflected the view of Assistant Attorney General Delrahim that antitrust enforcement should not be engaged in regulatory policing through consent decrees.⁷⁷ His view may prevail on appeal, but it also may not.

If the government loses the appeal – and no more favorable action is taken by the Supreme Court (if the case gets that far) – the DOJ should reconsider Delrahim’s skepticism of non-discrimination conditions.⁷⁸ In pointing to the

absence of price increases by Comcast, Judge Leon overlooked the beneficial impact of the non-discrimination provision in the Comcast-NBC Universal arrangement. Moreover, while Judge Leon noted that AT&T had economic incentives to ensure Time Warner’s content would be widely shared on other television delivery systems, he failed to acknowledge there was at least a risk that the combined entity could behave differently at some point in the future. Had Justice sought a non-discrimination condition and the judge approved it, that risk would have been diminished, if not eliminated.

Merging parties in the future nonetheless may point to the district court’s AT&T decision as a reason to resist the Department’s efforts to impose conditions on vertical mergers where the risk of discrimination exists. To his credit, Judge Leon was very careful to highlight the uniqueness of the fact pattern before him and cautioned against parties and courts in the future citing his decision as precedent for legitimizing all vertical mergers in the future. The Department should take him at his word. The statutory fix I suggest next regarding conglomerate mergers also would give the Department added leverage in seeking such conditions in future vertical mergers that present discrimination risks.

Meanwhile, regardless of the outcome of AT&T-Time Warner litigation, the Department should revise its Vertical Merger guidelines to reflect the bargaining leverage theory advanced by Professor Shapiro, which clearly is well within the mainstream of current thought among economists specializing in industrial organization, as Georgetown law and economics professor Steve Salop has suggested.

Consistent with Salop's recommendation, the revised guidelines should put a high burden of proof on the merging parties to show that any increased efficiencies would be reflected in prices charged to consumers. What's in the merger guidelines is important because, even though they only formally guide prosecutorial decisions, courts tend to take account of their content – if not immediately, then over time.

Conglomerate Mergers

The antitrust enforcement agencies have been unwilling to challenge conglomerate mergers because of judicial unwillingness to accept that such marriages can reduce competition that “potentially” would have been provided if the acquiring company had entered the market on its own. Courts cite the speculative nature of such potential entry.⁸⁰ In effect, courts and prosecutors have been reluctant to risk committing “false positive” errors: stopping mergers on potential competition grounds that truly pose no threat to competition in any relevant market (or what statisticians call “Type I” errors).

Such conservatism is understandable and should be the norm where neither party has a dominant position in any market. But, where an acquirer has a dominant position in one market – generally defined by the courts as having at least a 70 percent share of a relevant market – and is able to enter another market on its own, then antitrust policy should give at least as much weight to committing “false negatives” (what statisticians call “Type II” errors) or failing to halt mergers that eliminate the added competition that otherwise would have occurred. That is because, once a firm has established a dominant position in one market, it may be capable – through purchase of a firm in

another market – to reinforce the market power it already has in its market by tying or integrating the products or services of both firms in such a way as to “raise rivals’ costs.” This would reduce competition in the acquiring firm’s market and possibly “leverage its monopoly power” to the market the acquiring firm seeks to enter as well.⁸¹

For this reason, Section 7 of the Clayton Act should be amended to establish a rebuttable presumption against permitting acquisitions by dominant firms with the ability to effectively enter other markets on their own. The ability to enter that other market is important because dominance in one market does not necessarily mean the acquiring firm is truly capable of entering in an effective way on its own, thus enhancing competition. This rebuttable presumption would apply to both conglomerate and vertical mergers.

At this point, it may be objected that a dominant firm can build that larger moat surrounding its own dominance through organic or de novo entry, even without a merger. This is true. But why should the law make it *easier* for dominant firms to entrench their market power by buying into a market rather than doing the hard work of entering on their own – and, in the meantime, providing added competition in that adjacent market?

Presumptions are rebuttable; they are not absolute. Presumptions shift the burden of persuasion to the merging parties to show that the acquirer could not effectively enter the new market on its own, or that the merger would enable cost savings – or enhancements to innovation – that more than offset any loss of potential competition (in the case of

conglomerate mergers) or the dangers of discrimination against competitors (in the case of vertical mergers). Acquirers that can meet this test should be allowed to proceed with their transactions.

I do not come to this conclusion without some reservations. As *The Economist* has tabulated, the Big Four plus Microsoft collectively have bought 329 small firms in the past five years, which ought to flash a yellow light about approving future acquisitions by the large tech platforms.⁸² Nonetheless, at least up to this point, there have been benefits of having the major tech platforms serve as the “exit” for VC-backed smaller firms (and other firms financed through other means). Many of these acquired firms may never have been able to grow on their own to challenge the market positions of the companies that bought them, so the prospect of being bought very likely enabled them to be financed in the first place. Shutting off this exit route may impair future startups – a very legitimate concern.

However, the counter-argument is that, where a tech platform (or any other firm) has achieved a dominant position in any of its markets and can enter another market on its own successfully, it should be encouraged to do that rather than buy into that other market through acquisition. If the dominant firm were going to do that anyhow as a way of entrenching its own dominance, then the loss of that organic entry is a loss in competition, or precisely the outcome merger-governing antitrust law should be structured to prevent. Given the successful growth of the major platform companies in their own markets and the modest lessening of competition in the economy discussed earlier, the enforcement balance has shifted, at least in my view: any future losses in potential competition from

dominant firms offset and potentially outweigh any startup-enhancement effect they have provided thus far.

Horizontal Mergers

Even though the antitrust enforcement agencies and the courts have been active in policing potentially anti-competitive horizontal mergers – transactions involving firms in the same relevant market – existing standards should be tightened for the same reasons just given with respect to conglomerate mergers. Another reason to tighten the current standards draws on Carl Shapiro’s survey of the retrospective merger studies, which show, on balance, that horizontal mergers have not produced efficiency gains, while being positively associated with higher markups – and, thus higher prices. He and other antitrust scholars point to these findings, together with the upward trend in corporate profitability and growing “horizontal shareholding” of firms in the same industry by certain institutional investors, as justifications for moderately tightening the current market share thresholds for horizontal mergers in the Justice Department’s merger guidelines (which were effectively lowered, in the 1982 and subsequent versions, from much tighter ones under the Department’s first guidelines published in 1969).

This can easily be done under existing law; it would take only a revision of the current Horizontal Merger Guidelines. But the Guidelines also provide only prosecutorial guidance and are not case law. A more aggressive prosecutorial posture – which, for reasons just given, I believe is warranted – nonetheless would take some time to be tested in the courts, and the result could go either way. Ultimately the result would depend on a definitive Supreme Court ruling, which could be years (if not decades) away.

Accordingly, to be sure a tougher stance against mergers generally (and horizontal mergers in particular) would be supported in the courts requires a change in the statutory language itself. One good idea comes from the actual proposed statutory language (as opposed to the preamble) in The Consolidation Prevention and Competition Promotion Act sponsored by Senator Klobuchar and several of her Senate Democratic colleagues. That Act would make one small, but important, improvement in the language of Section 7: changing the phrasing from “substantially” to “materially” lessening competition. This small wording change would not alter the fundamental lens through which courts examine mergers – namely, their potential impacts on consumers or purchasers – but would lower the bar for convincing courts to block mergers of any kind. How much lower would take some time to know, for different federal district courts likely would take different approaches, meaning final clarity eventually would have to be supplied in a future Supreme Court decision. But a nudge toward a more restrictive stance, through a modest wording change in the statute, would help.

Sen. Klobuchar’s bill also would add the word “monopsony” to Section 7 of the Clayton Act to make clear the Act covers mergers that could materially enhance the power of buyers. This language seems specifically aimed at helping to reduce or prevent future increases in wage inequality due to concentrated (primarily local) markets for labor. Such effects can be manifest in mergers of all types, including conglomerate mergers – which can combine firms in different product markets, but which nonetheless may have common geographic markets where the combined entity could have substantially more market power in hiring than each of them separately.

It is not clear how many mergers would be affected by a more intensive focus of the antitrust enforcement agencies on a merger’s impacts on local labor markets; but, as noted earlier, such a direction in merger enforcement is clearly warranted given the evidence establishing a link between local labor market concentration and wages. Fortunately, such a fine tuning of merger enforcement is possible *without a statutory change*, since the existing language of Section 7 bars mergers where “in any line of commerce in any section of the country, the effect of such acquisition may be substantially to lessen competition, or to tend to create a monopoly.” The market for labor – as it would be for any inputs bought by one or both of the merging parties – is one such “line of commerce,” so the “monopsony” addition proposed by S. 1812 is unnecessary.

An alternative approach to tightening merger law, which could be adopted independently or coincident with the modest wording change just discussed, would be to introduce a bright line test into the law, either as a rebuttable presumption or absolute threshold. For example, in addition to its proposal to change the verbal standard in the Clayton Act, S. 1812 also would introduce such a bright line by putting the burden on merging parties in deals valued more than \$5 billion or involving a company whose sales, assets or market value is greater than \$100 billion to prove that the combination would not materially lessen competition.⁸⁵

One upside from dollar thresholds like these is that they provide clear guidance to private parties. The downside of the specific thresholds in S. 1812 (or any similar bill that may be introduced) is that they are arbitrary; there are no such bright lines from the academic literature that suggest it makes sense to effectively

bar most, if not nearly all, mergers larger than any specific threshold. As a result, any dollar threshold will bar some mergers that promise greater efficiencies and thus lower prices – though how many is difficult to say. It is equally difficult, however, to know how many more truly anti-competitive mergers the specific dollar thresholds in S. 1812 would weed out.

For all these reasons, my personal preference is to let the courts flesh out the meaning of “material” for horizontal mergers and leave it at that. Adding a rebuttable presumption of the type suggested earlier – rather than a flat ban on large mergers above the thresholds – still would allow non-horizontal combinations to go through if the parties can meet their burden of proof in establishing either that the post-merger market would not suffer a material loss in competition or that countervailing efficiencies more than offset any anti-competitive effects.

A Smarter Way to Get Tough on Dominant Firms

The Democratic Senators’ antitrust proposals are limited (so far) to preventing further business consolidation. They would not change other parts of the antitrust laws, notably Sections 1 and 2 of the Sherman Act, that deal with business behavior of existing companies.

But the rise of the major tech companies with actual or potential market power warrants greater scrutiny of their activities by the antitrust enforcement agencies. Companies without market power cannot harm the competitive process – because they are not able to compel consumers to buy only from them (exclusive dealing), refuse to deal with actual or potential competitors, or engage in a sustained way in predatory pricing to drive out competitors and deter others from entering the market. Dominant firms or those with significant market

power in concentrated industries – whether in tech or in the rest of the economy – may not be so constrained precisely because their dominance, protected by entry barriers, enables them to harm competition. That is the reason antitrust officials must watch them (along with competitors in highly concentrated relevant markets) more closely than other firms.

There are ways antitrust prosecutors in the future can address the central problem with Section 2 monopolization cases – that they take so long to resolve – without legislative action. While such cases are being investigated, tried (if not settled), and subject to post-trial appeals, the dominant firm can (and almost always does) retain its market power while impairing the ability of any rivals to compete. This is to consumers’ detriment.

The investigation and prosecution of the Microsoft monopolization case in the late 1990s provide important lessons for any future government-initiated Section 2 cases. The second Microsoft case was prosecuted about as rapidly as possible under current procedures: seven years from the beginning of the investigation in 1997 to the final appellate decision on remedies in 2004. But even that Microsoft matter had several up-and-down trips between the federal district court (that tried the case) and the appellate court (that supported the trial court’s finding of illegality, but nullified the breakup remedy – and then subsequently ratified the conduct remedies overseen again by the district court). Still, two specific procedural steps adopted by Judge Jackson in the trial should be emulated in future Section 2 cases: sharply limiting the number of trial witnesses for each side and permitting oral witness testimony only for purposes of cross-examination, with direct testimony submitted in writing.⁸⁶

The Expediting Act of 1903 should also be amended by reinstating *automatic* appeals (should either party want to appeal) from trial court decisions in Sherman Act cases under the Expediting Act of 1903. In 1974, that Act was amended to make such appeals discretionary, requiring a finding by the federal district court that an immediate appeal by the parties to the Supreme Court is of “general public importance,” which the Court can then decide whether to accept as a matter of discretion. Automatic appeals, which would dispense with the potentially time-consuming appellate review process in between, are appropriate in Section 2 monopolization cases. They may also be appropriate in group boycott matters under Section 1, given the rapid pace of change in some industries where the Sherman Act abuses on trial can snuff out what could be tomorrow’s potentially disruptive technologies, products, or services – all while any appeals are underway.

ANTITRUST IN AN ERA OF “BIG DATA”

There are legitimate antitrust concerns about companies that gain large and growing warehouses of data – one of the points made by Lina Khan with which I agree.⁸⁷ Alan Grunes and Maurice Stucke explain in their important book, *Big Data and Competition Policy*, how, in the age of “Big Data,” firms with lots of it in their possession have important advantages over newer and smaller firms, because buying and Web browsing patterns can alert companies with large bodies of data to patterns in purchasing behavior before such information is more widely and publicly available to actual or potential competitors.

The advantages of owning or having access to Big Data are not unique to tech companies, however. Banks, for example, know a lot about your financial history, including your buying patterns, from transactions records in your bank accounts. Under current law, though, they can’t use this data to enter non-financial businesses, as the law separates banking from commercial activities – largely to prevent banks’ deposit insurance from subsidizing those activities and to protect the deposit insurance fund from having to absorb losses from non-financial activities. In principle, banks conduct their non-banking financial activities through separate affiliates owned by a financial holding company, and the same arrangement could be used for their entry into commercial activities. But lawmakers have not taken that extra step and are highly unlikely to in the wake of the 2008 financial crisis.

Firms outside the banking industry, whether in tech or in other sectors, face no such restrictions, and many of them – in retailing, providing internet service, or in health care, to name just a few - also warehouse large masses of customer or user data. The critical legal and policy question is whether, and how, antitrust law should take account of increasing data concentration throughout the economy, not just on the tech platforms. If accomplished through the organic growth of single companies – for example, by Amazon going into the health business, initially in pharmaceuticals and later into medical supplies or even healthcare services – in the absence of specific acts of wrongdoing under current antitrust laws, there

is no current legal basis for stopping it. Should there be? I don't see how elected policymakers who face huge and often conflicting interest group pressures can draw principled lines that prohibit companies without government guarantees (such as deposit insurance) from entering some lines of business and not others solely to prevent further concentration of personal data.

Data concentration has conflicting implications for merger enforcement, however. On the one hand, having sole access to large bodies of customer data can act as a barrier to entry – not just in the company's current line of business, but potentially in other, related lines of business. Viewed this way, any type of merger, including conglomerate mergers involving parties in different lines of business today (but potentially in common ones tomorrow), can strengthen existing data-related barriers to entry. This would deter entry into any line of business in which either of the two merging parties are already engaged and possibly the formation of new companies with potentially disruptive, innovative products or services.

On the other hand, mergers between firms with large databases – “data-opolies” as Grunes and Stucker call them – can generate benefits for consumers. Consider the multiple “vertical” mergers already announced or being considered in the healthcare industry (and, at this writing, some are under antitrust scrutiny): CVS's (a pharmacy chain) acquisition of Aetna (a leading health insurer); Cigna's (another health insurer) acquisition of Express Scripts Holding (the largest U.S. pharmacy benefits manager); and Walmart's (a giant retailer with pharmacies and out-patient medical clinics) interest in a merger with Humana (another larger health

insurer). While many observers suggest this sudden wave of mergers has been prompted by Amazon's entry (through joint venture) into the healthcare business, the different acquirers may also be pursuing their own tie-ups to leverage the customer data in each of the merging parties' “silo” to discover, through increasingly sophisticated analytical techniques, ways of improving their customers' health, at potentially lower cost. Insurers that are parties in mergers – either as acquirer or target – have especially strong incentives to make use of related databases in any ways that improve customers' health, which would reduce claims costs. As one healthcare economist put it in an article about a possible Walmart-Humana deal: “These vertical deals are super exciting, mostly for the potential to keep people out of the hospital.”⁸⁸

One or more of these health deals also could offer privacy advocates what they have wanted more broadly: actual *payment* for customer or user data. Aetna's CEO Mark Bertolini envisions that, if his company's tie-up with CVS goes through, the benefits of marrying the data now held by each firm separately to offer new and cheaper healthcare plans for customers would enable a new business model that would do precisely that: “We want to say to [customers], if we build a plan together [if you agree to the data sharing by the companies], there are no copays and there are no authorizations because we built it together.”⁸⁹ Removing copay obligations of insureds is equivalent to paying them directly.

To be sure, antitrust enforcement officials must press merging parties claiming data-related efficiencies or enhanced innovation potential to be specific about the nature of the possible

gains, rather than simply accept sweeping claims that melding two data “silos” will somehow magically produce consumer benefits. It is possible that all the hype about “Big Data” turns out to be just that: hype. The Aetna-CVS merger may also pose countervailing antitrust risks, common to other vertical mergers, through the combined entity’s discrimination against rival pharmacy benefits managers (PBMs) and health insurers – segments of the healthcare industry where both firms have a significant market presence.⁹⁰ Or the consumer benefits of even Bigger Data may show up only in certain sectors, like healthcare, and not others.

Regardless, the era of Big Data will require that the pluses and minuses of the merging of databases of the merging companies must be given greater consideration by the antitrust enforcement agencies than in the past. But there is no obvious additional legislative change that is necessary.

THE LIMITS OF ANTITRUST REFORM

Successful antitrust policy can do only so much, just as any single policy tool can do. Specifically, antitrust policy and enforcement at its best can ensure that competition on the merits can deliver the best array of products and services at the lowest prices and the levels of quality for which consumers are willing to pay (and above a minimum level of quality that regulation sometimes needs to assure). Asking antitrust to do more – to protect the election process, to rectify injustices in the inequality of incomes, to assure full employment, among other worthy objectives – is asking it to do things it is not best equipped to do, or even achieve at all. Other policy tools are needed to achieve these goals.

Take, as just one example, the great economic challenge of our time: ensuring more rapid,

inclusive growth. A competitive landscape is one ingredient for facilitating innovation, and antitrust policy can help assure that. But apart from working at the edges to assure that markets for labor are not further distorted by employers’ market power – for example, by routinely considering the impact of mergers on local labor markets, which already is authorized under the current Clayton Act merger standard – antitrust policy is not the right tool to ensure that future growth, however rapid, is more inclusive than it has been in recent decades. Antitrust can do more, however, if authorities uncover collusive schemes among employers not to compete for labor (or through statutory changes prohibiting “no poaching” restrictions agreed to or imposed on certain employers).

The challenge of providing more rapid, inclusive growth is likely to grow more difficult in the years ahead, not primarily because of globalization (which can increase growth and enhance competition while also aggravating wage inequalities), but instead because of continuing technological advances – the combination of automation facilitated by advances in artificial intelligence – that will power future productivity growth. However, unlike the Cassandras who fear that automation will destroy jobs in its wake – portending a future of rising unemployment and thus an increase in the associated personal and social ills associated with the absence of work – many economists point to over two centuries of improvements in productivity (first in agriculture, next in manufacturing, and lately in some services) that have not had that result so far and which are not likely to lead to a jobless dystopia in the future, for several reasons.

Firms do not replace people with machines or software unless it helps them lower costs and,

thus, lower prices. Competition ensures this result: If automation or better ways of doing things are introduced by one firm in a market, others must follow or eventually lose market share – or even a place in the market entirely. Pessimists who look only to the immediate job losses from the adoption of new technologies, or the installation of machines or robots, overlook the subsequent *job-enhancing* impacts of technological advances.⁹¹

For example, it takes people to design and make the new machines or write the new software. Likewise, as Amazon has illustrated, new and more inexpensive business models – typified by online “stores” coupled with huge warehouses and eventually large delivery networks – require workers to operate them, even with robots. This accounts for the hiring spree not only by Amazon but by online retailers in general. As PPI’s chief economist Michael Mandel has documented, “ecommerce created 400,000 jobs from December 2007, the last business cycle peak, to June 2017, while brick-and-mortar retail has lost 140,000 full-time-equivalent jobs over the same stretch.”⁹² Moreover, contrary to conventional wisdom, these new jobs – mostly at fulfillment centers, and which typically require only a high school education – on average pay 31 percent more than brick-and-mortar retail jobs in the same locations.⁹³

It is not only the new technologies themselves that create different kinds of jobs. The money consumers save from buying lower-priced goods and services (made possible by technological advances) doesn’t vanish into thin air. Lower prices for the goods and services consumers

buy that are enabled by automation and trade are just as much of a “real” (or inflation-adjusted) gain in their incomes as an increase in their paychecks. Consumers take those gains and spend them on *other goods and services*, such as healthcare, education, leisure and entertainment. This process of recycling the gains from automation – as well as the jobs directly created by the changes in business models enabled by automation – has made it possible for the U.S. economy to reach or approach “full employment” repeatedly in the past despite much stronger productivity growth in prior years than now. Moreover, the job-generating power of the economy continues to this day, evidenced by current employer complaints about labor shortages throughout the country.

Notwithstanding the wage improvements for some e-commerce jobs already noted, the major economic and social challenge posed by automation more broadly is the potential it has for further widening income inequality. *This, not the jobless dystopia, is the real concern with future automation.* A recent Council on Foreign Relations Task Force report on the future of work sums it up:

“Although many new jobs will be created [by automation], the higher-paying ones will require greater levels of education and training. In the absence of mitigating policies, automation and artificial intelligence (AI) are likely to exacerbate inequality and leave more Americans behind.”⁹⁴

The CFR report offered seven broad recommendations of such “mitigating policies,” including (among others) paying much greater

attention to providing and funding employment-related training and retraining throughout workers' lifetimes,⁹⁵ overhauling and improving transition aid for all displaced workers through programs like wage insurance, and easing occupational licensing requirements (discussed in more detail in the following section), which restrict worker mobility, both geographically and in their career patterns, during their working lives. Notably, nowhere does the CFR report mention antitrust policy reform as a mitigating policy, for good reason: antitrust cannot improve workers' skills or match them more easily with job openings – the central challenges that must be met if future growth is to be more inclusive.

OTHER WAYS TO PROMOTE COMPETITION

Robust economic competition does not and should not rest entirely on effective antitrust enforcement. Other policies can also make the economy more competitive.

First, it is important that unnecessary occupational licensing requirements – which now cover almost 30 percent of the workforce, up from just 5 percent in the 1970s – be pruned and eliminated. As Professor Morris Kleiner of the University of Minnesota concludes, "There is little evidence to show that the licensing of many different occupations has improved the quality of services received by consumers; although, in many cases, it has increased prices and limited economic output."⁹⁶

A federal law preempting unnecessary state and local licensures, benefitting from a federal commission identifying which occupations no longer should have a license, would be the easiest solution to this problem, substantively. Politically, however, it is almost surely a non-starter. Congress is unlikely to enact a statute that takes away protections benefitting almost

one-third of the workforce, even if many of these protections hurt consumers.

An alternative, less sweeping federal solution would be to require reciprocity among the states; namely, if someone has a license to be a nurse, doctor, or hairdresser in one state, he or she would be able to have license to the same thing in any other state. This would greatly enhance worker mobility – a central problem affecting millions of Americans displaced or threatened with displacement in rural areas and smaller cities who would like to move to places offering greater opportunities, but currently can't without going through retraining and recertification elsewhere.

Many states would be likely to object to a reciprocity mandate, however, fearing a "race to the bottom" in certification qualifications – even if those qualifications objectively are anti-competitive and unnecessary to protect health and safety. Furthermore, the Supreme Court's recent decision in *Murphy v. NCAA*, allowing sports gambling, contains quite explicit language condemning as unconstitutional (in violation of the 10th Amendment) federal laws requiring states to act: "Congress cannot issue direct orders to state legislatures." This language could be invoked to invalidate a federal law mandating reciprocal recognition of other states' licensing regimes as an unconstitutional "direct order" to a state.

If reciprocity is ruled out – politically or constitutionally – then the only other way to eliminate unnecessary licenses is through state legislative action. This will be a painstaking process, requiring not only that each of the states mount a politically difficult effort, but also one that presents the substantively difficult challenge of going through all currently mandated licenses and removing the ones that

aren't required to protect the public. Nebraska has approached this problem by requiring its legislature to review 20 percent of its required licenses each year. An alternative approach is for each state to appoint a commission – modeled after the federal government's base closing commission – and then for the commission's list of suggested license eliminations to be given an up-or-down vote in a state's legislature. Other states should experiment with either of these approaches, or perhaps others.

Second, foreign competition is not often thought of as part of the regime for protecting U.S. consumers and the competitive process; but, in an increasingly global economy, companies abroad – selling products and services here – are an essential part of the competitive ecosystem. Foreign competition can discipline any price-setting power dominant firms or firms in concentrated industries in the U.S. may otherwise have. It can also encourage domestic companies to be more innovative.

At the same time, however, U.S. law has special rules for foreign competitors, consistent with international rules of the World Trade Organization, which are designed to prohibit or offset the effects of three specific "unfair" trade practices ("dumping," export subsidies, and violations of intellectual property rights of U.S. companies) but which also can insulate U.S. firms from foreign competition in ways that do not apply to domestic firms.⁹⁸ In addition, upon a finding that certain imports from specific countries are harming U.S. industries, the President (under Section 201 of the Trade Law of 1974) can impose temporary "safeguard" tariffs on those goods. Also, under Section 232 of the same trade law, upon a finding by the Commerce Department that certain imports are threatening national security, the President can impose more

lasting duties on those imports, as the Trump Administration has done for aluminum and steel imports from several countries and has threatened to do on foreign automobiles.

The price increases generated by the tariffs imposed by the Trump Administration on steel and aluminum, however, could easily swamp any increases due to collusion of domestic competitors, which the tariffs make more likely. Supporters of vigorous antitrust enforcement to benefit consumers must also, if they are to be philosophically consistent, oppose the turn toward protectionism of the current Administration, and instead support a return to pre-Trump era efforts of all other administrations since the end of the World War II at removing remaining trade barriers. At the same time, free trade advocates should also support a more generous and effective system for assisting workers displaced by trade, outsourcing, and automation to transition to other jobs and careers.⁹⁹ As a society, we are paying the price for not doing a good job at this in years past. The result, at least in part, is the extreme political divisiveness we now see and lament.

NON-ANTITRUST CONCERNS RAISED BY TECHNOLOGICAL INNOVATION

The innovations that have powered the success of the tech platforms, like other innovations, have their downsides. These are like the "externalities" of air and water pollution generated by manufacturers, but different in form. Other firms outside of tech also generate similar externalities.

Threats to Privacy

The first externality relates to violations of customers' or users' *privacy*. The online tech platforms and Internet service providers are not

the first to gather large volumes of data from their customers, thus raising issues of data security and privacy. What is unique, however, are the kinds of non-financial data these firms gather: users' likes, dislikes, and personal comments in the case of the social media giants Facebook and Twitter; and Internet browsing behavior and histories in the case of Google, Microsoft, and the broadband providers. This information is extremely personal, and the kinds of information a vast majority of Americans, it is safe to say, would never willingly allow the *government* to gather except through a judge-approved search warrant.

Take, for example, the disclosures earlier this year that an academic researcher in the United Kingdom sold the data he had compiled from more than 50 million U.S. users of Facebook (later updated to more than 87 million), collected without notice to them or with their consent, to Cambridge Analytica, a data analytics firm that allegedly used that data to micro-target Facebook users to help the Trump presidential campaign. This disclosure unleashed a whole series of events involving Facebook: a firestorm of negative publicity for the company; calls for its CEO Mark Zuckerberg to testify before Congress (which he since has done); an investigation by the FTC into whether Facebook violated its privacy promises to its users; an investigation by the Securities and Exchange Commission into whether Facebook violated securities laws by not warning investors sooner of its privacy lapses; and changes by Facebook in both its data sharing practices and its privacy settings to make it easier for users to prevent or limit sharing of the information they supply on that company's platform.

The ruckus over the data leak to Cambridge Analytica has prompted some to compare it to the use of Facebook data by the Obama administration in earlier campaigns. The two situations are quite different, however. Whereas the data that found its way in CA's hands allegedly were used to micro target ads and false information to many FB users, the Obama campaign harnessed the FB network in a legitimate fashion to encourage FB "friends" to contact other "friends" about helping the campaign.

Moreover, a lot has changed since the Obama campaign of 2012 and now. In the intervening years, citizens across the political spectrum have become much more sensitized to privacy issues due to the multiple serious data breaches at both government and private sector Web sites, and the disclosure that the National Security Agency had conducted for years a massive "meta-data" surveillance effort of phone calls. Therefore, the disclosures about Facebook user data being mishandled were the "match" that ignited an inferno of concerns about people's loss of privacy that had already mounted substantially over the preceding five years.

Those concerns have only grown in the past months in the wake of Facebook's disclosure that it had shared users' information with more than 60 applications developers after 2015, when the company claimed it had stopped such sharing, and now that Congress also has questioned both Alphabet and Apple about those companies' handling of their users' personal information.

Security Threats

The threats online platform companies pose to user privacy highlight a closely related second externality posed by online activity more broadly: namely, the susceptibility of Web sites of all kinds – not just those of tech companies – to *data security breaches*.

So far, this problem has plagued a wide of variety of companies *other than the major online platform tech companies*: retailers, banks, and, perhaps most disturbing, one of the three major credit rating bureaus, Equifax – which has financial files on most adult Americans. In other sectors of the economy where data breaches could shake confidence in the financial system or even threaten national security, the federal government regulates firms in some manner to minimize security dangers. For example, bank regulators scrutinize banks' data security protections; the Department of Defense and other agencies impose security obligations on third-party contractors; certain business customers of other companies may have contractual remedies if they are adversely affected by data breaches; and consumers can mount class action lawsuits alleging negligence on the part of companies that do not have state-of-the-art cyber protections. Nonetheless, even all these measures are not failsafe, as the continuing spate of data breaches demonstrates.

Threats to the Election Campaigns and Effective Government

A third externality, unique to the social platform companies Facebook and Twitter – and, seemingly to a lesser extent, Google – is the intensification of social and political differences

that make it more difficult to govern our democracy, coupled with infections of “fake news” that can distort election campaigns.¹⁰⁰ The online platforms, even if unwittingly, have led to this result in several ways: by enabling users to tailor their “news feeds” to fit their ideological predispositions, or to do this for users themselves based on their patterns or likes and dislikes; by encouraging those with more extreme political views to express them on social media, a trend research has documented for Twitter in particular (though I would be surprised if Facebook were any different);¹⁰¹ and by acting as vehicles for the dissemination of false information or truly “fake news,” originating from sources both inside and outside the United States.

In the wake of criticism on all these fronts, both Facebook and Google have taken different measures to reduce the likelihood that users will be shown fake news, and Facebook's CEO has even supported, in principle, legislation requiring disclosure of entities paying for political ads on its platform. Facebook has responded to the information silo problem by changing its news feeds algorithm to favor content produced by friends and family over “public content” generated by businesses and media outlets. It is not clear, however, to what extent this change will reduce the “information silo” problem since friends and family – or at least those users who choose to be Facebook friends – are still likely to share users' political beliefs.

Facebook, Google and Twitter have also gone on a hiring spree to engage humans to sift through content to weed out fake news and violent and offensive content. But human filters can only

be a stopgap measure given the mounting flood of content on these Web sites or services. Ultimately, artificial intelligence will replace these people and probably do an even better job. Quoting a blog post by Susan Wojcicki, CEO of YouTube: “Since we started using machine learning to flag violent and extremist content in June [2017], the technology has reviewed and flagged content that *would have taken 180,000 people working 40 hours a week to assess [emphasis added].*”¹⁰² Even so, the fact that Facebook still can’t determine where all its user information has gone is unsettling,¹⁰³ and dampens confidence that the company alone, without some regulation, can adequately protect users’ privacy.

Mental Health Threats

A fourth externality, somewhat related to the third one, is that social media can be addictive, and can even endanger some users’ mental health – a risk Facebook itself acknowledged in December 2017.¹⁰⁴ This is not surprising given that at least half of all Facebook users check the app at least once every day. The company has offered no solution to this problem, and why would it? Encouraging users not to be on Facebook so often would cut into the revenue the company collects from advertisers. It is far from clear what, if anything, government can and should do about this addiction. After all, type the words “Facebook addiction” into either Bing or Google and you’ll find roughly 50 million entries – and many on just the first two pages give advice on how to shake the addiction.

The “solutions” to the addiction problem are two-fold, and they have nothing to do with government, but rather technology

and entrepreneurial imagination. One major advance, already on our doorstep, is the cheap “plain vanilla” phone – without all the gee-whiz addictive features of smartphones – that several companies are beginning to offer. These “retro” phones allow users to call and access a few apps, but are designed and marketed to be much less addictive than smartphones – much like Nicorette gum for those trying to quit smoking. Another hopeful development would be personally and socially useful apps, such as those trying to promote good behavior – like losing weight, sleeping better, or saving more.¹⁰⁵

Systemic Threats to the U.S. Economy

Finally, each of the foregoing externalities is worsened by the fact that firms generating them have a large market presence. Thus, any leakage, theft or misuse of personal user data can have substantial effects on large numbers of users – and indeed across society. As Tim Berners-Lee, the inventor of the World Wide Web, summarizes: “Concentration of power with a few Internet companies has made it possible to weaponize the Web at scale”¹⁰⁶ – that is, for any dangers on the Web to spread widely. Presumably, Mr. Lee would make the same claim about any of the externalities associated with the rise of tech platforms.

Security risks arise not only from the data tech and non-tech firms collect from their customers or users, but also from third parties whose data a certain few host on their platforms. Consider the migration of data from computers at home and at work to the “cloud.” Effectively, the cloud is dominated by five providers: Amazon, Google, Microsoft, Oracle and Salesforce. A security

breach at any one of these providers could have catastrophic implications for many of the companies and individuals whose sensitive data is hosted there. This is especially true as U.S. banks continue to migrate more of their data to cloud providers.¹⁰⁷ Knowing that to be the case, and that just one major security breach could destroy its cloud computing business, each of the major cloud providers must convince worried customers that extensive measures have been deployed to prevent any security breach. In this age of digital hacking, however, the remote possibilities of major security breaches remain.

TACKLING DATA-RELATED THREATS TO THE ECONOMY

As in other sectors of the economy where firms have generated externalities, government has been called on to help curtail certain of those associated with the tech platforms: fake news, foreign political advertising, privacy and security. But, to preserve incentives for innovation – and the *next* platforms or other growth firms – any government action should be tailored to meet specific problems and ideally address them in a way that maximizes benefits to society at minimum cost to those regulated. Before I spell out ways to do this with respect to each of the data-related externalities identified in the previous section, several preliminary comments are in order.

First, while there is a case for regulating certain specific externalities related to all firms' collection and use of data, the case for imposing *public utility-style regulation* on any

of the dominant tech firms is weak.¹⁰⁸ Such regulation historically has been imposed on what firms providing capital-intensive “utility services,” such as electricity or water, can charge their customers. But there are no consumer charges for using Bing and Google (the two major Internet search engines) or for spending time on the two dominant social media platforms (Facebook and Twitter).¹⁰⁹ Each of these platforms is an online advertiser, which is how each makes money, but no single firm dominates this activity – although it is now effectively a duopoly, shared by Facebook and Google. But even a duopoly is not a *monopoly* that has traditionally justified utility regulation. Amazon is the major online retailer today, but no one seriously believes it is charging monopoly prices; to the contrary, as already discussed, the main complaint leveled against it is that its prices are too *low*, not too high.

Second, whatever regulation is imposed on the tech platforms (and other companies as well) may further entrench whatever market power each of them now has by making it costlier for other actual or potential competitors to do business. In general, many of these actual or would-be competitors do not have the economies of scale or resources to spread the fixed costs of complying with new regulations over their revenues with the same ease as the larger incumbents they challenge or may hope to disrupt. Moreover, there is a large academic literature documenting the ability of large

regulated firms to “capture” the regulators who oversee them, through direct influence or the prospect of providing future employment for those regulators if they decide to leave public office. These outcomes were anticipated even before the EU’s stringent data privacy directive went into effect in late May.¹¹⁰ Policy makers and regulators in this country, therefore, must keep these potential unintended consequences in mind as they consider taking affirmative steps to address each of the externalities discussed in detail below.

Third, it is not fair or appropriate to single out one company – such as Facebook, Google or Twitter – in designing regulation or other reforms only for it or even all of them, when other firms in other sectors of the economy also collect often vast amounts of data about consumers and suppliers. For example, all businesses acquire some data about their customers, including address, phone number, and – perhaps most significant – credit card number. Whatever broad privacy rules Congress, the states, or some regulatory agency may decide to impose on any of the major online companies presumptively should also apply to all companies, although certain lines of business with few competitors (social media and Internet search) may require special or unique forms of regulation. Still, because policy changes in each of the areas can have far-reaching consequences throughout the economy – not all of which have been surfaced or been thoroughly studied – and because any solutions to each almost surely will entail difficult tradeoffs and entail “winners and losers,” policy makers must think very carefully before acting.

Finally, certain suggestions advanced below parallel policy proposals outlined by Senator Mark Warner in late July 2018 in his thoughtful

draft white paper on the regulation of social media and technology firms.¹¹¹ To his credit, Warner lists various options, acknowledging that each may have flaws, but he nonetheless believes it important to get various ideas out for public discussion. For several months before the release of Warner’s list, I had been thinking myself how best to address several of the problems he has identified, so it may not surprise readers there is some overlap between the discussion below and that in Warner’s white paper.

Protecting Privacy

It has been over five decades since the Supreme Court interpreted the Constitution as establishing a right to privacy in *Griswold v. Connecticut* (the precedent for the Court’s later decision in *Roe v. Wade*). But people can trade that right for other things. It is now apparent in the wake of the controversy over Facebook’s data policies, and should have been apparent before: In the Internet age, most of the American people – as well as billions of Internet users around the world – have been induced, knowingly or unknowingly, to give up some of their privacy in return for accessing what appear to be “free” Web-based services, such as joining a social media network or a news Web site. That is because businesses offering such “free access” – Facebook and Google being the prime examples, but others are trying – have chosen to fund themselves by selling ads rather than using a subscription model.

The huge financial success of Facebook and Google also has demonstrated that online ads can be as effective as (or even more effective than) conventional advertising on print, radio or video platforms because online ads can be highly targeted rather than “broadcast” to a wide audience – only a sliver of which may be interested in buying the promoted good or

service. To be sure, conventional advertisers can target their audiences to a limited extent by running ads on TV or radio shows or in time slots demonstrated to attract specific demographic groups (millennials or seniors) and by targeting them to specific regions, if they can. The same is true of ads in magazines that cater to certain audiences (sports or business). But online companies that have all kinds of data about their users can target ads in a much more finely developed way. Google uses your own search terms, which you select, to tie to ads, the prices of which are set by auction. Facebook harvests data its users supply about themselves – not just identity and job and personal history, but through posts, likes and dislikes – to enable advertisers, both commercial and political, to micro-target audiences they are interested in reaching.

Moreover, both Facebook's and Google's success demonstrates the advantages of economies of scale in the platform business, not only in the sense that the fixed cost of maintaining the platform can be spread over countless users, but that greater reach and size enhance the value of the platform to an expanding array of advertisers. That is because the more user data a platform has, the more likely it is that it has just the *right kind* of data a specific advertiser wants to leverage. Twitter and Snap are building ad-based businesses, but it remains to be seen whether the information they collect, coupled with the reach of their platforms, will translate into anything close to the commercial success Facebook's and Google's advertising business has generated.

All of this leads us precisely to the debate Facebook's data use has triggered: What should companies be able to do with the data they

collect, and to whom do personalized data really belong – the individuals who supply it ("data subjects") or the companies that gather it ("data collectors")? This question is relevant not just to Facebook, Twitter or Google, but to *all firms* collecting at least some kind of data about their customers and suppliers. Although few companies can become platforms suitable for earning advertising revenue, the data they collect nonetheless can be useful to them and potentially to third parties seeking to develop and market other products and services. If the companies want, so long as the law permits, they can "monetize" the data they collect by selling it to others.

The European Union has addressed data privacy issues in detail – most recently in its revised General Data Protection Regulation, which became effective in late May. Although lengthy and complicated, the GDPR boils down to these three basic requirements of companies doing business in Europe: to inform people when and what data is being collected about them and what it is (transparency), to "process" or use that data only when people consent to it ("opt in consent"), and to take protections to prevent the data from being misused (security). I believe most Americans would agree with the first and third elements of this Regulation – transparency and security – although the details matter and have yet to be legislated in a comprehensive way. Companies that have security breaches have incurred the additional expenses of disclosing data breaches to users and will continue to be subject to suits for negligence and to suffer reputational loss for future breaches, giving them powerful economic incentives to be careful.

The subject of most controversy in this country is over aspects of “consent,” the second element of the EU’s privacy regulation. Does consent cover just the sale or transfer of data provided by “data subjects” (customers, suppliers, or employees) to third parties, or any use by “data collectors” themselves beyond providing the services or goods the collectors provide or sell? A second aspect is the nature of the consent. Do data subjects give their permission only if they “opt in” to providing it? Or is such permission presumed unless data subjects “opt out” of having their data shared or used by collectors? The opt out approach has been taken by most firms and in most sectors in the U.S. economy, and, in June 2018, the California legislature mandated opt out consent for customers of businesses operating in that state. A third issue is whether the choice between “opt in” or “opt out” should vary by the type of information and data. Personal health information in the U.S. is subject to an “opt in” regime, for example, under the Health Insurance Portability and Accountability Act of 1996 (or HIPAA). Facebook has said it would treat users’ pictures, but not any other user information, the same way.

The outcome of the consent debate matters hugely to all companies, but especially to online firms that not only collect data users supply willingly, but also Internet browsing data, such as through “cookies” that follow all of us around on the Internet unless we explicitly opt out of such tracking in our browsers (for which we then pay a cost, by having to retype the names of frequently visited Web sites and having to retype our login or other information every time we visit such sites).

Broadly speaking, without additional legislation or regulation, many if not most companies now use all user or customer data for their own purposes to make decisions about their own product and service offerings, and prices to charge. Some sell personal data to third parties – not always with either type of consent from data subjects. Those companies that offer some consent feature typically do it on an “opt-out” basis, for a simple reason: many fewer people opt out than those who opt in. Opt-in systems are akin to acknowledging that people have property rights in their data – as some have advocated should become formally enshrined in our laws – and thus to induce them to sell or rent those rights, companies must pay for them in some fashion. Clearly, that is a much more expensive way to acquire a large body of data than allowing people to opt out of having information collected about them (as is true with Internet cookies, for example).

My view is that it is common sense to require all businesses at least to give their customers or users a meaningful opt out possibility from having their data shared with third parties, including advertisers. In addition, opt out opportunities must be coupled with a simple statement in plain English of how data collectors use customer or user data.¹¹² The difficulty of providing simple plain English notices should not be underestimated, however. It took time and effort, including the solicitation of much public comment, before the Consumer Financial Protection Bureau issued a “simple” mortgage disclosure form, for example.

While I'm sympathetic to the idea of requiring opt-in for all personal data, I don't think Congress should adopt such a major policy initiative without learning much more through public comments and from companies of all types about the costs and benefits mandatory opt-in would entail. If an opt-in of some type is to be mandated – across the board or only for certain types of data – its details should be fleshed out and enforced by an appropriate regulator. The FTC is the logical privacy regulator given its statutory mandate to prevent unfair and deceptive trade practices. It is unnecessary to create yet another new agency (although at least one previous administration, the Clinton Administration, did have a senior White House official responsible for coordinating privacy policies across the federal government).

Still, any agency given responsibility for developing and enforcing a consent requirement would require explicit rulemaking authority to issue such a mandate – which the FTC does not now have for privacy issues – along with the ability to impose statutory penalties for rule violations, and additional resources to enforce its rules. Indeed, enforcement under any consent regime – opt-out or opt-in – would be a challenge and the details should be debated starting now. For example, would the equivalent of permanent on-site examiners (that have long been embedded in the nation's largest banks) be required for America's most data-intensive companies? If so, which ones? And how would this determination be made? If on-site examination is deemed too intrusive, how can occasional spot-check audits give citizens enough assurance that the companies aren't still doing something impermissible with data subjects' personal information – “in the basement” or “under the radar,” as it were?

The complexities don't stop there. Consider a finer level of granularity about an opt-in requirement and the differential impact different versions of it might have just for Facebook and Google. Given typically low opt-in rates, a requirement preventing Facebook from enabling advertisers to target specific classes of people based on their Facebook posts potentially would greatly reduce the value of advertising on the company's platform, unless any opt-in rule were to permit the company (and others like it) to use user data in some *aggregated, depersonalized* form. For example, instead of Facebook being allowed to tell its advertisers how they can target specific individuals, Facebook and other companies might still be permitted under any opt-in rule to target broader demographics, such as everyone over 25 in specific cities (or countries), built around the assembly of a portion of the depersonalized personal profiles provided by users (but not their Facebook postings). *Such a de-identified opt-in rule probably would not significantly impair the business model of any social media platform, while providing a lot more privacy protection than people now have on these platforms.*

Of course, if the opt-in rules were written in such a way that they dramatically limit the ability of data collectors to facilitate ad targeting – beyond the broad level that is now routine in the print and video worlds – then companies like Facebook relying on the ability to micro-target ads no doubt would search for other ways to make money, namely through some type of subscription charges. Facebook's CEO Mark Zuckerberg signaled that outcome when, in response to questioning during his April Senate testimony, he replied that “there always will be a free version of Facebook,” strongly implying that he and his company already are thinking about offering a subscription service.

What he and others don't know is the "elasticity of the demand curve" for a paid Facebook service, both in the U.S. and abroad. Almost certainly, users' willingness to pay is related to their income, meaning few of the vast numbers of Facebook's users in low-income countries likely would pay anything more than a token amount to stay connected. Even in the U.S., I believe Facebook would face strong resistance if it charged more than, say, \$10 per month – about as much as using a music streaming service, and perhaps even at lesser amounts.¹¹³ While many older Facebook users are "hooked" to the platform, they each had lives before Facebook, and I suspect most would find other things to do with their time if they had to pay more than a de minimis amount, or even anything at all. The company would then need to turn to other means of generating or showcasing "must have" content, perhaps going into video and music production, as just two examples.

Even under an opt-in mandate, Facebook still would be able to use the data of those who opted in to develop new services or products the company itself would develop and promote. This possibility underscores an important tradeoff in attempts to regulate privacy: The more tightly the rules limit the ability of data collectors to share it, directly or indirectly, with outsiders, the higher they raise the "data barrier to entry" in the data collectors' current or future lines of business. Put another way, stronger privacy protections may further entrench the dominant market positions of certain data collectors even as they may temporarily cut into their revenues.

Whatever form any required consent may take, it likely would have much greater impact on a company like Facebook or Twitter – or any other platform now or in the future that relies heavily on using user data to micro-target ads – than

on companies like Google, Amazon, Walmart, or other retailers (whether online or offline) where users, through their searches or purchases, essentially self-select into advertising (Google) or product purchases (retailers). This is just one illustration of the potential winners and losers from any consent requirement. Surely there are or would be others, which is why it is important for Congress and the appropriate regulatory agencies to hear from a wide array of parties and citizens about opt-out versus opt-in requirements – not only to gain a better handle on the balance of benefits and costs of any rules, but to flush out their potential unintended consequences.

Enhancing Data Security

Currently, to my knowledge, there are no laws – outside the federal legal regime governing financial institutions, health providers, communications providers, and possibly state consumer privacy protection laws – broadly imposing federal liability and penalties on companies that have failed to take "reasonable" steps to avoid data breaches. Instead, the nation has so far relied on state statutes and on negligence-based private class actions to incentivize firms to take reasonable measures to protect personal data. Likewise, the financial markets and consumers or users consistently punish firms – albeit to varying degrees, depending on the nature of the information taken and the numbers of people involved – that experience data breaches.

Given the vast and growing amounts of data sitting on servers in the "cloud," managed mostly by big tech firms and other large companies, we should do more. One obvious step is to impose a federal obligation on any large data warehouse – a term that would require further definition in

an authorized rulemaking – to adopt reasonable measures to ensure data security. Most logically, this would be enforced by the FTC, which would be armed with sufficient resources to do the job. A good case exists for imposing a lighter legal obligation on all other entities, so as not to create any barriers to entry and expansion by new and smaller firms and worse. Users can discipline these other companies, which won't have a chance to grow to be larger ones if they don't adopt reasonable data security measures as well.

There may be a technological solution on the way – not perfect, but maybe the best one can do: enabling trusted third parties to hold encryption keys, and for law enforcement to gain access to them only under very narrowly defined circumstances. For more on this notion, see the article reference in the endnote here.¹¹⁴

Rooting Out Fake News

Fake news has been most closely associated with both Facebook and Twitter, which purport to be neutral platforms and which each have algorithms for delivering customized news feeds to users. Google delivers written news through its main “news.google.com” Web page but sticks to showcasing mainstream sources. Users may find “fake news,” however, when they search for specific subjects. And they can find it in video form on YouTube, which has not attracted as much criticism (yet) for allowing fake news to proliferate.

These companies' efforts to address the problem of fake news illustrate how difficult the problem is to solve, however – and to do so in a manner widely accepted by users whose views span the political spectrum. For example, earlier this year Facebook announced it was changing

its feed to deemphasize all news stories in favor of content from users' friends and family. But that tweak also has had the possibly unintended effect of reducing the dissemination of legitimate news sources, at least in the countries where the change was first tested.¹¹⁵ Most recently, the company has announced that its “trending topics” box will feature only those stories that have been covered by a significant number of credible news outlets (to reduce “fake” news), while no longer personalizing topics by algorithmically determined user preferences (which is designed to reduce the “news silo” or “filter bubble” problem).

While all these steps, considered together, certainly will reduce the amount of what Facebook determines to be “fake news” that can be found on its platform, the company has been and will continue to be criticized for imposing its own preferences on what is “fake” or “hateful” on all its users – an outcome that did not sit well with several House Republicans who grilled Mark Zuckerberg when he testified before them in April. Since then President Trump has slammed social media platform companies for censoring conservative voices in these companies' efforts to root out fake news.

Google has taken a different approach to the fake news problem, instead seeking to harness the “wisdom of the crowd” by enlisting users to report back to the company links or search results they believe to be misleading, inaccurate or hateful. Google uses this information to then downgrade the rankings of such results, though it does not eliminate them. This process goes further than Facebook to avoid charges of censorship or bias, but also doesn't act as much of a filter. Such a tradeoff is inevitable.

Twitter has not taken any public steps to address fake news, taking the position that it is just a neutral platform. Not surprisingly, research has found that fake news travels virally and very rapidly on Twitter.¹¹⁶

Ultimately, there is no way for any private-sector news platform to weed out or downgrade what it believes to be fake or hateful news and still avoid charges of bias from some quarters – especially in our current highly politically charged and polarized environment. Charging a government agency to do the screening job for private platforms would not improve matters (any “bias” would change from administration to administration) and might well be an unconstitutional infringement on freedom of speech. Having the government oversee online content would be akin to reinstating the “Fairness Doctrine” that applied to the airing of political views on television and radio, but which the Federal Communications Commission repealed in 1987.¹¹⁷

One potentially promising private sector development is the launching of NewsGuard, a third party organization led by experienced journalists (Stephen Brill and Gordon Crovitz) which rates news and information websites. Of course, it is possible, if not likely, that some will attack this effort for bias as well.

Indeed, if there are enough political objections – from the right, left or anywhere along the political spectrum – to the ways the social media platform companies or third party rating services address fake news or hate speech, or to Google’s downgrading of such content, we could see the development of new social media platforms or the launching of other third party ratings services aimed at specific political audiences, just as we now have print and media

outlets owned by people with strong political views that are reflected in the outlets’ editorial and even “news” content. There certainly is enough money in the donor class to finance such ventures. Arguably, media organizations already identified with a political perspective – such as the Huffington Post or Breitbart/Fox News – could separately establish their own social media platforms and attract like-minded users to those platforms. This would solve the political concerns about private-sector censorship, although it would further fracture an already fractured American electorate. How much it would do so would be hard to say, since individuals on Facebook already choose their “friends,” in part on their political beliefs.

Regardless of the number of news delivery Web sites, continuing technological advances will make it difficult, and perhaps for a time impossible, to stop all fake content on the Internet. The technology for making fake videos, with false audio substituting for the true speaker’s voice, is already here, and can constitute a national security risk. Imagine, for example, a fake video of the President declaring war going viral, quickly triggering perhaps catastrophic reprisals. The research arm of the Defense Department, DARPA, reportedly is working on artificial intelligence technology to find and halt the distribution of fake videos, but who knows if it will be successful in time – or if the “bad guys” remain one step ahead of government? I ask the question without an adequate answer in an attempt to illustrate the nature and magnitude of the problem.

Senator Warner’s proposal to require tech platforms to identify “bots” using their platforms – enabling users to distinguish between them and real (even if anonymized) people – seems like a minimum step that should be taken

to address part of the fake news problems. Some platform companies are not waiting for legislation, however. Facebook and Twitter are removing, not just disclosing, bots that they can identify. Not surprisingly, these efforts, too, have elicited charges of censorship. Warner's white paper also correctly points to the practical and privacy concerns raised by further steps, such as requiring tech platforms to verify the origins of posts on their networks or identifying inauthentic accounts.¹¹⁸

Making Political Ads Transparent

The fake news problem, which contributes to social divisions, is compounded by political ads run by organizations or sponsors whose identities are not known, in contrast to the publication of such information for media ads. Shortly before the Facebook's CEO, Mark Zuckerberg, testified before committees in both congressional chambers in April, the company announced it was going to investigate the identity and location of the sources of political ads. In addition, the company has announced it will keep a publicly-accessible archive of all political ads that are posted on its network.

Facebook and Twitter have also publicly supported The Honest Ads Act, proposed by Senators Mark Warner, Amy Klobuchar, and the late John McCain, which would institutionalize some of these steps and adopt others as a matter of law. Specifically, the bill would require digital advertising platforms to maintain a "complete record" of advertisers who have spent more than \$500 on ads on the platform during the previous year, which would enable all users (including the media) to see a list of all advertisers, the ads themselves, the name

of the candidate an ad is supporting, and the audiences targeted by the ads – not just the ads that are shown now to targeted users. Although logging and disclosing ads is easier and cheaper in an online environment, the Honest Ads requirements would be more extensive than the requirements for other media platforms, on which political ads are subject to the Federal Election Campaign Act's disclosure requirements (which currently do not apply to online ads). The proposed bill also would require online platforms to take all "reasonable" measures to prevent foreign nationals from sponsoring political ads.

But even the Honest Ads legislation, which has yet to be seriously considered by the full Senate or House, would have its limits. Foreign nationals and political advertisers could set up multiple accounts and buy ads for less than the \$500 reporting threshold. Even organizations obligated to report would not be required (as they are not under the current law) to provide information about their donors. As a result, online users – like those watching ads on TV, hearing them on the radio, or reading them in newspapers – would not know who's really behind the ads. Nor would the Act prevent – as that would be inconsistent with the Constitution – candidates, advertisers, pundits and commenters from making false statements, which happens all the time in politics even though some media outlets "fact check" many claims. Given the high levels of distrust of mainstream news sources, it is likely their fact checking efforts will continue to be ignored or not believed by a large portion of the electorate – a problem, plaguing our democracy, that no law can fix.

CONCLUSION

The American economy, or any free market economy for that matter, requires effective competition between firms to generate the highest quality products and services at the lowest cost and prices. The antitrust laws that have been on the books for over a century are designed to ensure this outcome.

There is evidence, however, that the strength of competition in many industries has weakened somewhat – requiring not so much radical change in our antitrust laws, but some moderate fine-tuning. Specifically, the merger provisions of the Clayton Act should be strengthened, especially for mergers involving firms with a dominant position in a relevant antitrust market. However, we should not add criteria that, in combination, would greatly increase uncertainty about standards for approval and which could make the economy less efficient, raising prices for consumers.

The rise of the large technology platform firms has greatly benefited both U.S. consumers and producers. There is yet no sound legal or policy basis for using antitrust laws to break them up. Nonetheless, the growth of these firms has generated non-antitrust concerns about data

security and privacy. All firms collecting data about individuals (employees, customers, users, and suppliers) – and not just firms in tech-related lines of business – should be required to inform these “data subjects” in plain English of what data about them is being collected. Plus, at minimum, firms should give those individuals the ability to “opt out” of data sharing arrangements that are not directly related to their transactions with the firms. While I am sympathetic with an even stronger “opt in” requirement, its potential impacts should be studied further before it is implemented, in whole or in part.

Whatever additional data-related regulation policy makers decide to impose, they should be aware that it is likely to benefit disproportionately large, incumbent firms that have the resources to comply

Appendix A

WINDING ROADS: A BRIEF ANTITRUST AND CONSUMER PROTECTION PRIMER

Americans have always had a healthy distrust of concentrations of power – political and economic – and especially monopolies. Our founding fathers revolted against the monopoly of political power held by the King of England, and replaced him with a democratic system of government deliberately constructed through the world's first “Constitution,” which disperses *political* power in several ways:

- By separating the three major branches of government (legislative, executive and judicial) – and a de facto fourth branch: “independent” regulatory agencies that do not report to the President, created over time through a combination of legislative and judicial decisions;
- Federalism, or the splitting of political power between the federal and state governments, enshrined in the 10th Amendment to the Constitution;
- Freedom of the press, protected by the First Amendment of the Constitution, to check political power at all levels of government through the dissemination of news and opinion to the electorate; and
- The “rule of law,” which is protected by the 5th and 14th Amendment to the Constitution and by judicial adherence to precedent (“stare decisis”), except in highly unusual circumstances – when facts on the ground have undermined the legitimacy of prior

rulings, as in the case of the Supreme Court's 1954 decision in *Brown v. Board of Education*, which overturned its 1896 decision in *Plessy v. Ferguson* supporting “separate but equal” schools for white and black Americans.

Congress and the courts have also responded to the public's worries about the concentration of *economic* power, though it took more than a century after the nation's founding for this to happen in a comprehensive way. The trigger was popular opposition in the late 1800s to then-growing economic and political power of larger firms or collections of them in “trusts,” in certain industries – railroads, oil, and steel – that were then squeezing out competitors and distorting the competitive process. The worry about the excessive economic and political power of “the trusts” crossed party lines. Congress responded initially by passing the Interstate Commerce Act to regulate railroad rates, followed three years later by enacting America's first broad “anti-trust” law, the Sherman Act of 1890, which prohibited collective restraints of trade (such as price fixing and group boycotts) and acts of “monopolization” or attempts to monopolize (but, as later courts have held, not punishing the acquisition of a monopoly or market dominance through a superior product, service or luck, or both).

In 1914, Congress added the Clayton Act, prohibiting mergers between firms that are likely to “substantially lessen competition,” and the Federal Trade Commission Act of 1914, which created an antitrust enforcement and consumer

protection agency separate from the Department of Justice. Two decades later, Congress enacted the Robinson-Patman Act of 1936, prohibiting non-cost justified price discrimination, designed principally to protect local retailers from being undercut in the marketplace by their larger national competitors (the only antitrust law that explicitly protects *competitors* rather than the overall *competitive process*).

Almost from the day the first antitrust law, the Sherman Act, was signed into law, there has been a tug of war among judges and academics about the intent of Congress in passing this and subsequent antitrust laws – and how judges and federal prosecutors should implement them. Broadly speaking, several related tensions have run through this debate, which are documented so well by Robert Atkinson and Michael Lind in their book, *Big Is Beautiful*, that all I attempt here is quick summary of their discussion.¹¹⁹

One view, reflected in the opinions of Justice Louis Brandeis, is that the antitrust laws were enacted to protect small businesses of all kinds against the “excessive” power of large companies, even if they are more efficient and even if protection of small businesses means the U.S. economy will be less efficient and consumers will pay more as a result. The alternative, efficiency view, is that the antitrust laws were designed to benefit consumers or purchasers, and the “competitive process” – and that if, as a result, certain firms earn dominant market positions through superior efficiency without abusing their market power, that outcome should be welcomed. In effect, the “small business school” sides with producers, while the “efficiency school” sides with consumers and purchasers (which can be other businesses themselves).

The producer-consumer divide also distinguishes between two schools of thought in another way. Defenders of the producer approach also tend to believe that the antitrust laws are essentially about preserving democracy, by sustaining small business and preventing undue concentrations of power that can distort the political process. In contrast, adherents of the consumer approach tend to view the antitrust laws as inherently economic in nature. They recognize that interest groups – including small businesses, large companies, and wealthy individuals – all can distort the political process, but argue that these harms cannot be addressed in any meaningful way through application of the antitrust laws.

To greatly oversimplify, after flirting for roughly two decades with what today the courts, economists, and legal scholars would call the “consumer welfare” interpretation of the antitrust laws, in various decisions between the 1920s through the 1970s, the Supreme Court and the lower courts embraced the Brandeis approach. Since the late 1970s and continuing to this day, however, the courts have moved back to a more sophisticated version of the consumer welfare school, tied very much to modern economic thought.

Another tension has turned on what should be done either to limit or punish the power or abuses of large or dominant companies in their markets: regulate them or break them up. As discussed in the text, the breakup option has rarely been used; and, when it has, it has been invoked by proponents of both the “small business” and the “protecting consumers” schools of thought.

Formal economics did not play a major role in judicial thinking about the antitrust laws

until after World War II. That changed with the theorizing and empirical work of then-leading micro-economists, starting with Joe Bain at the University of California and later joined by other economists and law professors – including Ed Mason, Carl Kaysen, and Don Turner – who argued that markets dominated by a few firms (oligopolies) could and would price their products above the marginal cost of producing them (the micro-economists’ condition for perfect competition) and thus hurt consumers by charging excessive prices. The economists found support for this theory in the fact that firms in highly concentrated industries tended to earn higher profits – or “supra-normal” profits – than firms in less concentrated lines of business.

The implications of this “structure-conduct-performance” (SCP) paradigm, which was dominant in much of academia (except at the University of Chicago, for reasons spelled out shortly) were profound. For one thing, it meant the Justice Department should set a low level of industry concentration and a small increment in that level as the threshold for challenging mergers in the same geographic and product markets, or “horizontal mergers.” That is exactly what the Department did and what the Supreme Court ultimately accepted. Prime examples included the Supreme Court’s decisions in the 1960s supporting the Justice Department’s challenges to Brown Shoe Company’s acquisition of Kinney Shoe (giving the combined company a national market share of just a bit more than 5 percent) and the acquisition by Von’s Grocery Store of Shopping Bag Food Stores in California (which also would have resulted in a combined 7.5 percent market in the Los Angeles grocery market). In each case, the Court cited the growth of concentration in the relevant market as a factor in its decision.

In the non-merger arena, the SCP paradigm appears to have been implicitly behind the Justice Department’s numerous antitrust challenges in the 1950s through the 1970s to the dominant market positions acquired by such innovative, but large firms as IBM, Xerox, AT&T and others, which led to the compulsory licensing of their technologies to competitors. By one count reported by Atkinson and Lynn, between 1941 and 1959 more than 100 judgments resulted in the compulsory licensing of between 40,000 and 50,000 patents – some to foreign companies that later successfully challenged U.S. companies in producing color televisions, cameras, and copying machines.¹²⁰

If adherents of the SCP paradigm had their way, then even less-than-dominant firms in concentrated industries – so-called “oligopolies” – also would have been challenged because of the structure of the industries in which they competed. Firms in concentrated industries have an easier time signaling pricing strategies to each other, and therefore could be guilty of “restraining trade,” not through any explicit agreements among the parties, but through “consciously parallel” pricing strategies. Toward the end of his presidency, Lyndon Johnson convened the Neal Commission, which in 1968 recommended the breakup of oligopolies in concentrated industries without showing explicit acts of anti-competitive conduct. Such an outcome was consistent with, if not driven by, the SCP paradigm.

But Johnson was at the end of his presidency and – although the Justice Department launched what was to become a 13-year antitrust lawsuit against IBM (which eventually was abandoned) for monopolizing the computer industry – neither the President nor his Justice Department had the time or interest in

implementing the Neal Commission's breakup proposal. Another important reason oligopolies were never broken up was intellectual: What if firms earned supra-normal profits, or industries were concentrated, because they were efficient – either in the short run by taking advantage of economies of scale (a view supported by economists at the University of Chicago, especially Aaron Director), or in the long run, by using their profits to innovate, and thus become “dynamically efficient.” The latter view was espoused by the great Austrian economist who eventually migrated to Harvard, Joseph Schumpeter, and later the great American economist William Baumol, who spent his academic life at Princeton and New York University (and whose many contributions included path-breaking work on the importance of entrepreneurs to dynamic economies).

Of the two “efficiency” schools, the short run view – the one emphasizing “allocative efficiency” in the here and now – came to have the most influence on antitrust jurisprudence. Its best and most famous proponent was the late Yale Law professor and former federal judge, Robert Bork, who fully outlined his views on antitrust in his now-classic 1978 book, *The Antitrust Paradox*. The book's main argument was that the antitrust laws – excepting the 1936 Robinson-Patman Act's prohibition of price discrimination, which, over time, effectively has been non-enforced – were designed to preserve the *competitive process*. This would both promote efficiency and maximize “consumer welfare.” Bork's book became one of the most influential books on antitrust, both in academia and in the courts (other than the widely used antitrust treatise, initially authored by the late Harvard law professor, Philip Areeda, and since issued in subsequent editions with other co-authors).¹²¹

Bork did not invent the consumer or purchaser welfare standard now being criticized by some progressives. Instead, like other legal doctrines (such as the use of cost-benefit analysis to define “reasonableness” in tort law endorsed by Judge Learned Hand), Bork borrowed his approach to antitrust legal analysis from mainstream economic thinking about the ultimate rationale for capitalism: that it was and still is the best economic system for ensuring *consumers* get what they want – at the lowest prices and with the highest quality. Bork may not have agreed that capitalism needs as many guardrails as it now has – principally, regulations and legal doctrines to prevent behavior that is deceptive or that imposes costs on third parties – but he did support the need for antitrust laws, just so long as they were enforced in ways that put purchasers first and did not shelter inefficient firms or their owners and employees from vigorous competition from other firms, large and small.

Over the past four decades, the consumer welfare approach has become the established way all federal courts, from the Supreme Court down to the federal district court level, have interpreted the antitrust laws. In my view, this happened largely because the approach had a theoretical structure that gave more-or-less clear answers to whether the behavior or acquisitions on trial were permissible. In contrast, the “small business school” of antitrust – or those who argue the antitrust laws have broader social and political objectives, such as promoting democracy and/or democratic capitalism – had and still has no established, non-arbitrary methods for drawing bright lines between permissible and impermissible behavior.

Appendix B

MEANS OF ENFORCING ANTITRUST AND CONSUMER PROTECTION LAWS

The antitrust and consumer protection laws are enforced in multiple ways, and with different kinds of sanctions.

First, as noted above, two federal agencies – the Justice Department and the Federal Trade Commission – enforce the major federal antitrust statutes, and the FTC has the additional responsibility for rooting out and prohibiting “unfair trade practices” such as deceptive ads or descriptions of products. The FTC also has the authority to establish “trade regulation rules,” which define fair practices in specific industries. Federal authorities are backed up, often joined and sometimes opposed, by state attorneys general who enforce state antitrust and consumer protection statutes.

Individuals and companies displaying the requisite intent to violate the antitrust laws can be charged with a criminal offense – and, at least in the case of individuals, can be imprisoned (although companies cannot be sent to jail, a criminal conviction can impose severe reputational harm and may disqualify the company from engaging in certain business activities). Most violations of the antitrust and consumer protection statutes, however, are treated as civil matters; the penalties include “cease and desist” orders and fines.

Private individuals also have the legal authority under the Clayton Act (and similar provisions under state law) to act as “private attorneys general” and to obtain three times the damage

they suffer due to violations of federal antitrust laws. In addition, under the Antitrust Improvements Act of 1976, Congress authorized state attorneys general to file antitrust suits in federal court for damages on behalf of their citizens, known as *parens patriae* claims. Citizens of states can opt out of these suits and bring their own private actions. As a practical matter, states have limited resources to bring *parens patriae* lawsuits, which is why private enforcement of the antitrust and consumer protection laws remains important.

Yet, because the damages caused by antitrust violations – typically higher prices paid by consumers – for *each consumer or purchaser* are likely to be small, no one or even a small group of consumers or purchasers has the incentive or the financial wherewithal to file suit and thus discipline the anti-competitive behavior of firms violating the antitrust laws. That is why *class action lawsuits* – which allow individuals (whose claims are typical of a broad range of parties) to file suits on their behalf – can be critical for consumers harmed by anti-competitive behavior to gain restitution for their damages and provide proper deterrence against unlawful behavior.

Of course, official enforcement actions also provide deterrence, but the resources devoted to – and the intensity of – enforcement activities can and do vary over time, depending on the outcome of elections. In contrast, private parties – especially if part of large classes who have been injured – always have monetary incentives to bring suits where violations and

injury have occurred. Indeed, one study indicates that private class action litigation against cartel activity has had an even more important deterrence function than official enforcement.¹²²

Antitrust and consumer protection actions are not the only type of class actions that may be brought under the Federal Rules of Civil Procedure, which have an entire Rule 23 devoted to such lawsuits and the circumstances under which they can be accepted by the federal courts. Over the past two decades, courts have made it more difficult for classes in all types of cases to be certified. They have accomplished this by tightening the application of the multiple sub-criteria required under Rule 23, such as the requirement that individual class members be individually “ascertainable,” that the named plaintiffs’ claims be “typical” of the class, and that questions common to the class “predominate” over questions relating to individual class members. A big question mark hanging over the future viability of class actions is whether, when, and how the Supreme Court will clarify the extent to which class plaintiffs must prove that all members of the class have been injured (even though non-injured parties can be identified and excluded from receiving compensation) or whether some high percentage less than 100 percent of the class suffices for purposes of allowing class suits to go forward.¹²³

Antitrust law is not the only body of law policing the competitive behavior of business. At the federal level, the Federal Trade Commission has broad antitrust enforcement authority – coupled with broad discretion under Section 5 of the FTC Act – to punish “unfair and deceptive trade

practices.” The agency has used its Section 5 authority over the years on a case-by-case basis principally to compel those who engage in deceptive practices to quit doing them and to punish the actors for violations. The FTC also has the ability, rarely exercised, to seek restitution for harm suffered by consumers.

In 2010, as part of the Dodd-Frank financial reform law, Congress created a specialized financial consumer protection agency, the Consumer Financial Protection Bureau, which Congress unusually lodged with the Federal Reserve, and whose activities have been the subject of much partisan praise and criticism ever since.

Numerous federal regulatory agencies also establish and enforce various kinds of “social regulation” aimed at curbing “externalities” that may injure consumers and other firms. The National Labor Relations Board was established in the 1930s to enforce labor laws aimed at protecting workers’ rights to organize into unions and to collectively bargain with employers about compensation and working conditions.

Each of the states also has its own version of the FTC’s consumer protection law, namely its ban on “unfair and deceptive trade practices” – although state governments vary in the resources they provide for official enforcement, while differences exist in how and under what conditions private citizens may sue under these acts.¹²⁴

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- 80 For a good summary of conglomerate merger law, see John Vanderstar, "Conglomerate Mergers: The Developing Antitrust Guidelines," *St. John's Law Review*, December 2012, <https://scholarship.law.stjohns.edu/cgi/viewcontent.cgi?referer=https://www.bing.com/&httpsredir=1&article=3498&context=lawreview>.

- 81 The status of “monopoly leveraging” arguments in the courts is unclear, even after Justice Scalia’s brief dismissal of it in the context of a refusal to deal situation in *Verizon v. Trinko*, 540 U.S. 398 (2004). Courts since that decision have been more open to refusals to deal than Scalia may have anticipated, but I have found no decision on monopoly leveraging in the context of a tying or bundling matter since *Trinko* that would shed further light on this specific issue. See <https://files.drinkerbiddle.com/Templates/media/files/publications/2007/three-years-after-verizon-vtrinko--broad-dissatisfaction-with-the-whole-thrust-of-refusal-to-deal-law.PDF>. Nonetheless, the theory of raising rivals’ costs, which can happen through the leveraging of market power in one market to another, is well accepted in the economic literature. See Steven C. Salop and David T. Scheffman, Federal Trade Commission, Working Paper No. 81, January 1983, <https://www.ftc.gov/system/files/documents/reports/raising-rivals-costs/wp081.pdf>. Although Salop and Scheffman discussed only vertical mergers as a means for raising rivals’ costs, their framework can be applied to entry through conglomerate mergers into adjacent markets as well.
- 82 “America’s Antitrust Apparatus Prepares to Act Against Big Tech,” *The Economist*, April 26, 2018.
- 83 Shapiro (2017) at pp. 21-22.
- 84 The proposed language change in the basic merger standard advanced in S. 1812 is better than one I offered in 2016: putting a higher burden of proof on merging parties claiming that future efficiencies could outweigh any anti-competitive effects of the transaction (though the two ideas are not mutually exclusive). See Robert E. Litan, “Entrepreneurship, Innovation and Antitrust,” American Antitrust Institute, 2016, <http://www.antitrustinstitute.org/content/aai-releases-additional-papers-report-antitrust-and-entrepreneurship>.
- 85 Those dollar thresholds would be increased as the size of the overall economy increases.
- 86 *Ibid.* at 30-32.
- 87 Khan (2017).
- 88 Zach Cooper, quoted in Melanie Evans, “Walmart’s Plans Worry Hospitals,” *The Wall Street Journal*, April 2, 2018, p. B1.
- 89 Quoted in Erika Fry and Sy Mukherjee, “Big Data Meets Biology,” *Fortune*, April 1, 2018, p. 48.
- 90 American Antitrust Institute, “AAI Calls on DOJ to Block the Merger of CVS-Aetna,” March 26, 2018, <http://antitrustinstitute.org/content/aai-calls-doj-block-merger-cvs-aetna---vertical-integration-will-restructure-important>.
- 91 Robert E. Litan, “Meeting the Automation Challenge to the Middle Class and the American Project,” Brookings Institution, June 21, 2018, <https://www.brookings.edu/research/meeting-the-automation-challenge-to-the-middle-class-and-the-american-project/>.
- 92 Michael Mandel, “How Ecommerce Creates Jobs and Reduces Income Inequality,” Progressive Policy Institute, September 5, 2017, p. 3. <http://www.progressivepolicy.org/issues/economy/%ef%bb%bf%ef%bb%bfhow-ecommerce-creates-jobs-reduces-income-inequality/>.
- 93 *Ibid.*
- 94 Council on Foreign Relations, “The Work Ahead – Machines, Skills, and U.S. Leadership in the Twenty-First Century,” Independent Task Force Report No. 76, April 2018, p. 3, https://cfrd8-files.cfr.org/sites/default/files/The_Work_Ahead_CFR_Task_Force_Report.pdf.
- 95 For the details of one plan for ensuring lifetime retraining opportunities, see Edward Alden and Robert E. Litan, “A New Deal for the 21st Century,” Council on Foreign Relations, May 31, 2017, <https://www.cfr.org/report/new-deal-twenty-first-century>.
- 96 Morris M. Kleiner, “Reforming Occupational Licensing Policies,” Brookings Institution, 2015, p. 6. http://brookings.edu/wp-content/uploads/2016/06/THP_KleinerDiscPaper_final.pdf.
- 97 See <https://www.platteinstitute.org/research/detail/nebraska-a-national-leader-in-job-licensing-reform>.
- 98 For a critical review of antidumping laws, see Richard Boltuck and Robert E. Litan, eds., *Down in the Dumps: Administration of the Unfair Trade Practice Laws* (Washington, D.C.: Brookings Institution, 1991).

- 99 The 2018 CFR report lays out an agenda for doing this. So do I in “Meeting the Automation Challenge to the Middle Class and the American Project,” also published in 2018.
- 100 For one of the most thorough examinations of this problem and some suggestions of how to address it, see Cass Sunstein, *#Republic: Divided Democracy in an Age of Social Media* (Princeton: Princeton University Press, 2018).
- 101 Julia Carrie Wong, “Facebook overhauls News Feed in favor of ‘meaningful social interactions’”, *The Guardian*, January 11, 2018, <https://www.theguardian.com/technology/2018/jan/11/facebook-news-feed-algorithm-overhaul-mark-zuckerberg>. A forthcoming book by Vivek Wadwha and Alex Salkavet and Vivek Whadwha offers a broad critique of the addictive nature of social media and modern tech devices, *Your Happiness Was Hacked: Why Tech Is Winning the Battle to Control Your Brain – and How to Fight Back* (Berrett-Koehler Publishers, 2018).
- 102 Quoted in Michael Lev-Ram, “The Quest to Clean Up the Internet,” *Fortune*, April 1, 2018.
- 103 See, e.g., <https://www.wsj.com/articles/facebooks-problem-it-doesnt-know-where-all-the-data-went-1530106200?mod=djemalertNEWS>.
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- 105 I am an advisor to one such startup company, Arnexa, which is an app on the Apple iPhone platform encouraging people to save.
- 106 Tim Berners-Lee, Open Letter, March 12, 2018, available on many sites; one such example: <https://www.medianama.com/2018/03/223-the-fight-for-the-open-web/>.
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- 108 For an excellent summary of all the key arguments, both for and against, public utility-style regulation of tech companies, See Peter Swire, “Should the Leading Online Tech Companies be Regulated as Public Utilities?” *Lawfare*, August 2, 2017, <https://lawfareblog.com/should-leading-online-tech-companies-be-regulated-public-utilities>.
- 109 Antitrust enforcement officials in the U.S. and the EU have begun to consider privacy issues as a non-price quality consideration to be factored into assessment of mergers, a topic discussed earlier in the text. See Samson Y Esayas, “Privacy-as-a-Quality Parameter: Some Reflections on the Scepticism,” *Stockholm Faculty of Law Research Paper Series No. 43*, <https://ssrn.com/abstract=3075239>. But doing this is a long way from implementing public utility regulation – which historically has dealt primarily with pricing – over dominant tech firms solely to assure user privacy, security, and other non-price goals.
- 110 Sam Schechner and Nick Kostov, “Google and Facebook Likely to Benefit from Europe’s Privacy Crackdown,” *The Wall Street Journal*, April 24, 2018, p. 1, <https://www.wsj.com/articles/how-europes-new-privacy-rules-favor-google-and-facebook-1524536324>. See also Daisuke Wakabayashi and Adam Satariano, “How Looming Privacy Regulations May Strengthen Facebook and Google,” *The New York Times*, April 23, 2018, https://www.nytimes.com/2018/04/23/technology/privacy-regulation-facebook-google.html?rref=collection%2Fsectioncollection%2Ftechnology&action=click&contentCollection=technology®ion=stream&module=stream_unit&version=latest&contentPlacement=9&pgtype=sectionfront.
- 111 Sen. Mark Warner, “Potential Policy Proposal for Regulation of Social Media and Technology Firms,” July 2018, <https://graphics.axios.com/pdf/PlatformPolicyPaper.pdf>.
- 112 In late June, the California legislature enacted legislation giving consumers in that state the right to prevent companies doing business in California from selling their personal data to third parties. This legislation could put pressure on Congress to enact uniform federal legislation to this effect.

- 113 One study has found that the median Facebook user in the U.S. would require a \$50 payment to give up Facebook use for one month. But this asks someone who has a service to give it up (which behavioral economists call the “endowment effect”) which is entirely different from asking that individual to pay out of pocket for getting the service in the first place, and somewhat different from charging existing Facebook users who would permanently lose access to the platform if they don’t keep paying. See Erik Brynjolfsson, Felix Eggers, Avinash Gannamaneni, “Using Massive Online Choice Experiments to Measure Changes in Well-being,” NBER Working Paper No. 24514, April 2018, http://www.nber.org/papers/w24514?utm_campaign=Hutchins%20Center&utm_source=hs_email&utm_medium=email&utm_content=62227953.
- 114 Steven Levy, “Cracking the Crypto War,” *Wired*, April 25, 2018, <https://www.wired.com/story/crypto-war-clear-encryption/>.
- 115 Sheera Frenkel, Nicholas Casey and Paul Mozur, “In Some Countries, Facebook’s Efforts Have Magnified ‘Fake News,’” *The New York Times*, January 14, 2018, <https://www.nytimes.com/2018/01/14/technology/facebook-news-feed-changes.html>.
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- 117 For a thorough analysis of the constitutional issues that could arise in the event something akin to the “Fairness Doctrine” were reinstated, see Kathleen Ann Ruane, “Fairness Doctrine: History and Constitutional Issues,” Congressional Research Service, July 13, 2011, <https://fas.org/sgp/crs/misc/R40009.pdf>.
- 118 Warner (2018), pp. 6-8.
- 119 Robert Atkinson and Michael Lind, *Big Is Beautiful: Debunking the Myth of Small Business* (Cambridge, MA; MIT Press, 2018).
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- 121 Robert H. Bork, *The Antitrust Paradox: A Policy at War with Itself* (Free Press, 1978).
- 122 Joshua P. Davis and Robert H. Lande, “Toward an Empirical and Theoretical Assessment of Private Antitrust Enforcement,” *Univ. of San Francisco Law Research Paper No. 2012-17*, *Seattle University Law Review*, Vol. 36, 2013.
- 123 I note here my own personal involvement in class action litigation, through my current law firm activities.
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