Technology and its Discontents: Taking Stock of Antitrust and Technological Change In the Early 21st Century

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Thank you for having me.

With your indulgence, I'll begin my remarks at this technology conference with a little technological history. See if you can guess the time period I'm about to discuss from this description:

America has been undergoing some truly radical changes. Amazing new technologies are transforming the economy and even the very nature of work itself in ways that would have been completely unfathomable just a few short decades ago. These changes deliver numerous, substantial improvements into the lives of ordinary Americans, but they are also deeply disruptive to many parts of the existing economic and social order. Compounding these challenges, immigration has become a hot-button political issue, and the divide between rural and urban America is increasing.

Sounds maybe a little too familiar doesn't it? Yet all of that was now a very long time ago. I just described the United States in the post-Reconstruction era, which runs from roughly 1877 into the early part of the 20th century. This is a time of remarkable foment in American

[1] The views expressed here are my own, and do not necessarily reflect the position of either the Federal Trade Commission or any individual Commissioner.

society. With the Civil War and its immediate aftermath finally over, the last quarter of the 19th century is the time when the American version of the industrial revolution really kicked into high gear. As farming started to become mechanized and cities began to grow in size and importance, the existing, long-settled patterns of American life began to change in substantial and important ways. The Sherman Antitrust Act of 1890, the country's very first antitrust statute, came into force as the United States was actively transforming from a largely rural and agrarian society and into a much more urbanized and industrial one.

Then as now, government faced a potentially difficult task in responding to these substantial changes in the existing economic and social order. How do we best preserve and even foster the socially beneficial aspects of technological progress, while also curbing a series of new social ills created by these vast changes? What is the appropriate role of the government when the economy decides to reinvent itself in novel and unforeseen ways? Most importantly, where should the line between free markets and government regulation be drawn in this new and different world?

Similar issues have arisen more recently, but with antitrust law sometimes cast as one of the villains rather than as a savior. As a leading antitrust enforcer described the situation:

> [Some] question whether the existing antitrust laws can possibly be relevant to today's economy. The Sherman Act was passed in 1890 in response to the nationwide industrial trusts that the railroads had made possible, and the Clayton Act was passed in 1914 and was aimed largely at retailing and wholesaling practices in localized markets. How, then, can these ancient statutes be relevant to a 21st Century, information-based, economy? [2]

[2] "The Importance of Antitrust Enforcement in the New Economy," remarks of Joel I. Klein, Assistant Attorney General of the Antitrust Division, Department of Justice before the New York State Bar Association, New York, Jan. 29, 1998, https://www.justice.gov/atr/speech/importance-antitrust-enforcement-new-economy.

That quote comes from then-Assistant Attorney General Joel Klein in 1998, addressing the nationwide angst about the efficacy of antitrust enforcement against the tech giants of the time: AOL, Netscape, Microsoft, Intel, HP, Dell, Compaq—and others.

Now, in the early part of our current century, many people are once again asking these same kinds of very fundamental questions about the relationship between their government and the economy, and particularly the newest, most innovative aspects of that economy—today's technology firms. In the view of some, lax antitrust enforcement and, in particular, the long-standing, bipartisan political consensus that antitrust law protects consumer welfare has failed to protect us from the myriad downsides of this brave new world. Of greatest interest to many of these commentators, and the subject of this and other conferences, is the intersection between antitrust enforcement and today's AOL's, Netscapes, and Microsofts—Amazon, Apple, Alphabet, and Facebook.

In my remarks today, I am going to discuss several aspects of this narrative, but before I get into the details, I want to place some clear limits on the points that follow. First, the simple fact that Republicans and Democrats have both agreed to do something the same way for decades is not a sufficient reason, in and of itself, to keep doing it the same way forever more. Indeed, one of the greatest strengths of the American antitrust laws is that they have adjusted to changes in the nature of the economy and economic learning over time in order to remain relevant. All of that means that everyone should approach these new questions about the nature of antitrust with an open mind. If we determine, at the end of the day, that we are getting something fundamentally wrong here, then we can and we should change our approach.

Recognizing these issues, FTC Chairman Simons launched the landmark set of hearings on competition enforcement in the 21st century currently being held by the FTC to develop the

substantive and analytical framework necessary to make an accurate assessment of the current state of antitrust enforcement, and to consider what changes might be necessary and possible.[3] I am going to focus the remainder of my remarks on the issues underlying the hearings, the progress of the hearings to date, and some initial thoughts on what we've been learning. We do not, as yet, have any conclusions from the hearings: they are still in progress, we are still receiving (and seeking) submissions, and ahead of us remains the hard work of synthesizing the tremendous amount of information we've received. But it is already clear that we are learning some fascinating and important things that are worth mentioning.

I. Why Hearings? The Fundamental Issues, and How to Think About Them.

Not every new FTC Chairman launches a comprehensive assessment of the state of competition and consumer protection law. But Chairman Simons saw a need to do so because of the tremendous ongoing national and global debate about macroeconomic issues, competition policy more broadly, and in particular, the rise of a set of technology companies who appear to have achieved durable dominant status.

I find it useful to think about all of these issues as raising, in essence, three questions, and in thinking about the FTC hearings as helping to answer those questions.

(1) Is there a problem; that is, is there actually some economic, social, or legal problem within the broad range of concerns that we have the expertise and mandate to address, and if so, what is the extent of the problem (or problems)?

(2) To the extent we identify problems, what role did antitrust enforcement - or lack of enforcement - play in creating or continuing those problems?

[3] FTC News Release, "FTC Announces Hearings on Competition and Consumer Protection in the 21st Century," Jun. 20, 2018, https://www.ftc.gov/news-events/press-releases/2018/06/ftc-announces-hearings-competition-consumer-protection-21st.

(3) Can antitrust help solve any of the identified problems, and if so, how - by changes around the margins, or larger changes?

Let me elaborate on these questions before turning to the hearings themselves.

Commentators ranging from academics to the mass media to politicians to enforcers have identified or suggested many potential economic, social, or legal problems that have at least some potential connection to antitrust policy. These problems include alleged increases in industrial concentration at very high levels—such as nationwide 2-digit NAICs codes, like "Retail", "Trade", or "Health Care and Assistance".[4] Others point to increases in corporate markups and profits, declines or stagnation in productivity growth, declines in start-ups, and growing inequality.[5] In the tech arena, the specific concern has focused on the possession, for in some cases close to a decade now, of very strong market positions by a handful of companies. These include Google in search and search advertising, Facebook in social media, and Amazon in e-retail; some also throw in Apple, Netflix, Microsoft, or others into various permutations of this group.

The commentators have not just identified problems: they have often pointed accusatory fingers at antitrust enforcement as being a cause of at least some of these problems. A recent op-ed in the *New York Times* warned that:

> The federal government, under presidents of both parties, has largely surrendered to monopoly power . . . Washington allows most megamergers to proceed either straight up or with only fig-leaf changes. The government has also done nothing to prevent the emergence of dominant new technology companies that mimic the

[4] Council of Economic Advisers Issue Brief, Benefits of Competition and Indicators of Market Power, Apr. 2016, at https://obamawhitehouse.archives.gov/sites/default/files/page/files/20160414_cea_competition_issue_brief.pdf.

[5] Paul Krugman, Robber Baron Recessions, N.Y. TIMES, Apr. 18, 2016, at A21, https://www.nytimes.com/2016/04/18/opinion/robber-baron-recessions.html.

> old AT&T monopoly. This meekness has made possible the consolidation of one industry after another.[6]

In general, the argument that antitrust policy is at least in part to blame for the problems I've described above rests on the idea that merger policy has generally been too lax. Specifically, that antitrust enforcers have been reluctant to investigate or block acquisitions of start-ups or small firms by incumbents - the "nascent competitor" problem - and on what I would loosely describe as a more general suspicion of large firms and a belief that their conduct should be more strictly supervised than that of small firms.

Finally, many participants in the discussion of these issues have suggested that antitrust policy could provide solutions to some of these problems. The proposed solutions run a tremendous gamut, from tightening merger policy, to reversing the burden of proof in mergers, to such aggressive changes as prohibiting any acquisitions - or even organic growth - by large firms, or simply engaging in a wholesale restructuring of industries.

II. So What's Happening At The Hearings?

With that backdrop, let me turn to the FTC hearings. Specifically, I want to discuss how the hearings have engaged these issues, and provide a little context for the technology industry in particular.

We have held nine hearings to date. Several of these were multi-day events, and most involved multiple panels. The hearings have covered a wide range of topics, but I will group the topics into the three questions I posed above.

The first question was whether there are economic and legal problems in the status quo that are at least within the outer reaches of antitrust policy. That question was addressed in at

[6] David Leonhardt, *The Monopolization of America*, N.Y. TIMES, Nov. 25, 2018 at A23, https://www.nytimes.com/2018/11/25/opinion/monopolies-in-the-us.html.

least three hearings: the first, on September 13, the second (on September 21), and the third, on November 1. The second question - to what extent antitrust policy may have missed the mark- came up in at least six hearings to date. And the third - what changes could be made to antitrust - was a subject of discussion in five of the hearings to date.

Well, with all that activity at the hearings themselves—not to speak of the extensive submissions we've been receiving on the issues raised in the hearings—what are we, so to speak, "hearing?"

Let me again caveat that the short answer is that we are hearing a great deal, but we do not yet have conclusions. So all of this should be viewed as somewhat short of preliminary. But with that said, having participated in a number of the hearings and reviewed transcripts and materials from others, I think there are a large number of interesting points from the discussion that are worth noting, particularly in the technology industry.

First, on the initial question of whether and to what extent there are problems in the modern economy that are at least somewhat within the scope of antitrust's purview, the hearings have provided quite a mix of information. There seems to be considerable evidence that, at very large scales, concentration has increased in the U.S. and other economies. The difficulty, however, is that it is not clear that those increases are relevant to antitrust policy because they may relate to scale economies, or an increasingly low-cost, national- or global economy in which firms occupy multiple geographies.

Let me give you a simple example. After this conference is over, I am unlikely to travel to San Diego or Memphis just to have dinner tonight. Instead, the number of restaurants I could realistically patronize this evening is limited by geography. Basically, I am going to need to eat somewhere around here, and so the restaurants that can realistically compete for my business are

limited to this general area. In economic terms, the relevant geographic market for restaurant meals is relatively narrow and local.

Now, let us imagine that a regional restaurant chain in Boston buys an independent, regional restaurant chain in Washington, DC. Nationally, there are now fewer restaurant firms and so, under the industry classification model, national concentration in restaurants has increased.

Yet that is not what happened here at all. Nobody who lives in DC was likely to go to Boston for dinner, and nobody living in Boston was likely to come here for dinner, so there actually has not been any meaningful reduction in competition among restaurants in either city. Indeed, the very opposite may actually be true, as a larger company with more efficient costs entering a new market may tend to drive prices down rather than up. In fact, a transaction like this may actually cause the local market for restaurants in DC to become more competitive rather than less competitive.

This same effect can even occur simply with entry. Suppose you have ten cities across the country that each have ten, say, independent coffee shops, which each have equal shares of 10% of sales. A new coffee shop firm arises, opens in all ten cities, and is so attractive to consumers that in five years the entire market doubles in size - people suddenly discover a new, previously unknown need to buy expensive coffee drinks - and the new firm gets half of this new growth in each city. In each city, you now have eleven competitors instead of ten, and all of them have grown. But if you look at concentration—it rose![7]

[7] For illustration: assume in year 1, sales in each city are $1,000, and each competitor has 10%. Each city has a city level market HHI of 1,000. Nationwide, there are 100 competitors, and each of those coffee shop firms has sales of $100, for a national market HHI of 100. In year 5, each city has 11 competitors, with sales of $2,000, with the chain coffee shop having sales of $500, and the independents each selling $150. This produces a city-market HHI of 1,187.5. Nationwide, we have total sales of $20,000; the chain store has $5000; and all 100 independents each have $150. This produces a nationwide HHI of 681.25. While still low, nationwide HHI jumped dramatically from 100

Because of this measurement problem, many of the hearing participants were doubtful that broad, national measures of "concentration" tell us much about the competitiveness of the economy. There was, however, more consensus that issues such as rising markups, profits, and inequality, and declining productivity and rates of start-ups, could be indicative of broader issues in the economy—though to be clear, there was extensive testimony to the contrary on all of these issues.

In the tech space specifically, there seems to be a general sense that while many technology markets are extremely dynamic, the durability of a few firms' large market shares is concerning. Google/Alphabet in search and search advertising, Amazon in e-retail, and Facebook in social networking, have all had large shares for fairly long periods of time. Some commentators have contended that the relevant technology markets are subject to competition "for the market," and to strong network effects that render them susceptible to "tipping" - and that they might already have tipped. After all, while Google faced Yahoo!, and Facebook eclipsed MySpace, those battles ended quite some time ago, and it is not clear that there are new challengers on the near-term horizon.

Even if true, though, this leads to the second question: is any of this due to some failure in antitrust? I recently attended an antitrust conference in Europe that focused on the technology industry, and I was struck by the fact that much of the conversation on technology companies seemed to skip past this question. Commentators frequently observed that some of the tech companies were quite large, and that they had maintained large shares for a prolonged period of time, and then moved straight to asking what antitrust should do about that fact. There was not

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to 681.25, and even local HHI rose, from 1,000 to 1,187.5. But, by any other measure, these markets would appear more competitive, not less.

much discussion of whether any kind of failure in antitrust policy had contributed to the rise of the so-called tech giants.

This is actually a critically important issue. It is a fundamental proposition of U.S. antitrust law that mere size and success are not violations of the law. Firms can grow, and can stay large and successful, merely by being better than their rivals. An antitrust policy that punished firms for success based on being better competitors would be perverse, and would ultimately harm the society in which that policy existed—as many scholars think US antitrust policy did in the 1960's and 1970's.

U.S. antitrust law focuses on two broad areas in carving out the procompetitive sheep from the anticompetitive goats. One is mergers—we try to block or remedy mergers that are likely to create market power without offsetting efficiencies. But for the most part, it doesn't appear to be the case that the large technology companies achieved or maintained that status by acquiring their large, incumbent direct competitors. Google did not buy Yahoo! Facebook did not buy MySpace.

The hearings focused considerable attention on one subset of merger policy—the acquisition of nascent, or potential, competitors. Since the large tech firms did not acquire large direct rivals, what might they have done? One answer is that they could have set about to quash competitive threats before they arose, by identifying and buying such threats at early stages in their life-cycles, before the antitrust regulators or the relatively constrained doctrines of potential competition could detect the threat. So while Facebook didn't buy MySpace, it did buy Instagram and WhatsApp. The hearings discussed this issue extensively, identifying both the legitimacy of the issue, and potential difficulties in its application. There is no question that firms could anticompetitively acquire nascent rivals. The trickier issue is identifying cases

where that is happening, and distinguishing them from cases where firms are purchasing complements and, potentially, accelerating the provision of beneficial goods and services by bringing those nascent complements to market. The final conclusions in this area will be interesting to observe.

Second, large firms could have acquired or maintained their shares by what we call exclusionary conduct - conduct that isn't competition on the merits, but instead grows or cements market position by inflicting economic harm. Examples range from illegal vertical agreements under Section 1 of the Sherman Act (such as exclusive contracts designed to prevent rivals from accessing key inputs, even when those inputs aren't fully needed by the dominant firm) to unilateral conduct such as Microsoft's campaign against Netscape. This issue also has received attention in the hearings, specifically, with regard to whether conduct by the technology platforms is exclusionary. For example, is it exclusionary for an Amazon or Google to give preferential treatment on its platform to its own vertical services?

Another issue that received considerable attention in the hearings is whether data analytics, and the accumulation or use of data, might create insurmountable competitive advantages, or enable the possessors of the data to target rivals for acquisition or elimination. Balanced against that is the possibility that data analytics might well enable firms to provide better goods and services - that what looks like sharp or even unfair competition from one viewpoint may look like great customer service and low prices from another.

This leads naturally to considering the third question I posed in connection with the hearings: what can or should antitrust policy do to address these varying issues? Again, this is an issue that the hearings have considered in multiple ways that relate to the technology industry, as

well as to the economy and antitrust more broadly. There are far too many points emerging from the hearings to cover here, but let me note a few of interest in the technology space.

First, algorithms and AI have garnered great interest in discussions of antitrust and technology. Some potential issues that have been discussed at the FTC hearings and elsewhere include whether algorithms might be able to converge on oligopoly outcomes more effectively than humans can simply by being rigorously logical, rational, and well-informed. Leaving aside whether this is correct - and I should note that testimony at the hearings suggested that, at least for now, algorithms and AI are not actually capable of doing this, but instead at most seem to be predisposed to cheat on the oligopoly outcome - if so, what should antitrust policy do about it? It would seem to be problematic to impose legal rules that forced firms to program their algorithms to be illogical, irrational, or poorly-informed just to avoid the risk that better-designed algorithms might produce stable prices.

Similarly, in merger policy some have suggested restricting purchases of nascent competitors by large firms. But the hearings have highlighted practical and other issues with such an approach. For example, large firms in practically every industry buy lots of small firms - Ford, GE, IBM, Boeing, and many others are repeat acquirers. But if we are not particularly concerned about the vast swathe of small-firm acquisitions, and intend to focus on only some industries, how do we define those industries objectively and rationally? Moreover, if we make it more difficult to buy start-ups, will we reduce the funding available for start-ups? On the other hand, should we be as willing as we have been to assume that four, or even three, firms are sufficient for competition? Should we be more concerned about sky-high acquisition prices for start-ups with no visible revenue?

Finally, does antitrust provide an answer to whatever problems may exist with the accumulation of data? Some commentators at the hearing thought the answer lay in utility-style regulation - requiring firms to share their data troves. Others thought there was no problem in this area at all, or that it was a much more nuanced problem - with particular collections or uses of data (such as targeting competitors for acquisition or elimination), and that solutions could include ensuring some measure of consumer portability.

These questions, and many others, have received extensive attention at the FTC hearings, and will no doubt be the subject of developments to come.

III. Conclusion

We may not quite be living through the industrial revolution again, but the economy we are living in today looks very different from the economy of even twenty-five years ago. It is perfectly appropriate and rational to evaluate whether these changes in the economy may require some corresponding course corrections in antitrust enforcement. However, if we change direction, it should be for good reason, and with our eyes clearly open to both what we are gaining and what we are giving up. We at the FTC are working hard to make sure that we have the information necessary to make smart decisions on the future direction of antitrust enforcement.

Thanks again for having me.