Senate Judiciary Committee
Hearing on Vertical Foreclosure and Antitrust Remedies in the Information Economy
Testimony of Thomas W. Hazlett[1]
March 10, 2020

I. Introduction.

Thank you for inviting me to testify at today's hearing. My name is Thomas Hazlett. I teach economics at Clemson University and previously served as Chief Economist of the Federal Communications Commission. I have studied and written about competition and regulation in telecommunications, media, Internet, and other high-technology industries for over three decades.

II. Evolving Antitrust Rules.

Antitrust rules were established under common law, even prior to enactment of the Sherman Antitrust Act in 1890. But with the rise of Big Business, concern over large industrial enterprises took new legal form. In our time, another economic transformation is credited with sparking a similar policy debate. With the rapid evolution of digital technologies, we are witness to the dramatic rise of communications, social media, and e-commerce platforms, extremely popular with users and prized by financial investors. They have enabled far-reaching business model innovation and disrupted many markets. They present new opportunities and new challenges. As with the printing press, the telegraph, photography, motion pictures, and radio and television, rules governing these new institutions are evolving in response to changing circumstances.

III. Vertical Integration.

One matter of controversy is the degree to which firms specialize. A producer of automobiles may decide to produce engines, but buy the steel inputs, from other companies. These decisions about the scope of the firm's activities are the subject of much study by economists since a pioneering paper published in 1937.[2] General Motors once purchased car bodies from an independent supplier, Fisher Body; it then acquired Fisher Body and made these components internally. This integration has been explained by economists as an efficient coordination of risky, long-term, complementary investments.[3] At the same time, other

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[1] Hugh H. Macaulay Endowed Professor of Economics, and Director, Information Economy Project, Clemson University. My latest book is THE POLITICAL SPECTRUM: THE TUMULTUOUS LIBERATION OF WIRELESS TECHNOLOGIES, FROM HERBERT HOOVER TO THE SMARTPHONE (Yale, 2017).

[2] R.H. Coase, *The Nature of the Firm*, 4 ECONOMICA (Nov. 1937), 386-405.

[3] As Benjamin Klein summarizes: "vertical integration is more likely when transactors make relationship-specific investments." Klein, *The Economic Lessons of Fisher Body–General Motors*, 14 INT. J. OF THE ECONOMICS OF BUSINESS (Feb. 2007), 1–36. This basic insight was developed in Oliver E. Williamson, *The Vertical Integration of Production: Market Failure Considerations*, 61 AMERICAN ECONOMIC REVIEW (May 1971), 112–23.

trends go in the reverse direction, away from vertical integration. GM now reports using scores of independent parts suppliers.[4]

Tesla, a more recent industry entrant, produces both electric vehicles and the batteries that power them. This integration is tight and ambitious, with the firm building a massive Gigafactory to dramatically increase its battery production capacity. It partners with Panasonic in this effort, an "integration by contract," and by merger, having acquired by Maxwell Technologies.[5] Tesla attempts to exploit complementarities that will allow it to better fund, conduct, and then utilize the innovative technologies it develops. It has widened this aggregation by purchasing Solar City, a maker of solar panels. Following that merger, Tesla boasted that it had built "the world's only vertically integrated energy company," and would supply power to both a consumer's house and car. Whether this entrepreneurial effort will succeed is a wager reflected in the company's equity share price. But the competitive rivalry over business models – with Tesla's rivals typically buying batteries from outside suppliers – is a socially valuable discovery process.

That conclusion is rendered by observation. Vertical integration is ubiquitous, even where monopoly is not an issue and efficiency is the obvious outcome. The first radio broadcasting station went on the air in Pittsburgh, Pennsylvania, Nov. 2, 1920. Who would invest in such a technology, given that there were no receivers? And, on the other hand, what household would buy a radio when there were no stations to listen to? This chicken-or-the egg dilemma was remedied by Westinghouse, which created KDKA, and its free-to-listener audio service, in order to sell its receivers. This vertical integration was efficient – there was no radio market to monopolize – and the innovation unleashed an entirely new sector.

Research by economists has considered the possibilities, examining particular market structures which appear more or less vertically integrated. Efficiency may be the result, or it is possible that company practices – by merger, or pricing, or packaging – foreclose rivalry, lessening competition. A 2005 study concluded that vertical integration was overwhelmingly associated with lower costs and better outcomes for consumers.[6] An article in 2007 in the *Journal of Economic Literature* surveyed published academic research, and reached the same conclusion. Wrote economists Francine Lafontaine & Margaret Slade:

> As to what the data reveal in relation to public policy, . . . [w]e are . . . somewhat surprised at what the weight of the evidence is telling us. It says that, under most circumstances, profit-maximizing vertical integration decisions are efficient, not just from the firms' but also from the consumers' points of view. Although there are isolated studies that contradict this claim, the vast majority support it. Moreover, even in industries that are highly concentrated so that horizontal considerations assume substantial importance, the net effect of vertical integration appears to be positive in many instances. We therefore conclude that, faced with a vertical arrangement, the burden of evidence should be placed on competition authorities to demonstrate.[7]

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[4] GM gave 133 firms its Supplier of the Year award in 2018. General Motors, *GM Honors Global Suppliers for Innovation, Quality and Performance*, News Release (May 17, 2019).

[5] Vitaliy Katsenelson, *This could be the next gold mine for Tesla and other electric vehicles*, MARKETWATCH (Oct. 5, 2019).

[6] James C. Cooper et al., *Vertical Antitrust Policy as a Problem of Inference*, 23 INT'L J. OF IND. ORG. (2005).

[7] Francine Lafontaine & Margaret Slade, *Vertical Integration and Firm Boundaries: The Evidence*, 45 JOURNAL OF ECONOMIC LITERATURE (2007).

This conforms to U.S. antitrust law. Vertical integration is not a *per se* violation of the competition statutes. Whereas horizontal collusion (price-fixing among rivals) is considered a "naked restraint" that restricts output without offsetting benefits, trade-offs are inherent in vertical coordination. Practices that include mergers, contracts, and other coordination between producers of complementary factors, widely produce benefits. That they may sometimes produce restrictions on rivalry, say by increasing barriers to entry or enforcing horizontal price agreements, is recognized by the law. But those instances must be distinguished from the most common case in which efficiency explains the economics using a "rule of reason," distinct from the "per se" rule governing horizontal collusion.[8]

Moreover, it is predictively disruptive for each and every integration decision by a firm to be subject to regulatory oversight, which would act as a tax on productive activity. Hence, the "Government has the burden of proof to demonstrate that the merger is likely to lessen competition," wrote Judge Richard J. Leon in his 2018 opinion in *U.S. v. AT&T*.[9] Therein, the U.S. Department of Justice challenged a vertical combination, with AT&T (a major distributor of cable TV programming, through telecommunications networks and its subsidiary, DirecTV) bidding to acquire Time Warner (a major producer of cable TV programming, including CNN, HBO, TNT, TCM, TBS HLN and the Cartoon Channel). A "rule of reason" analysis in the opinion led Judge Leon to rule that the Government had advanced a plausible theory of vertical foreclosure, but that evidence was needed to support the asserted outcome:

> … evidence indicating defendants' recognition that it could be possible to act in accordance with the Government's theories of harm is a far cry from evidence that the merged company is likely to do so (much less succeed in generating anticompetitive harm as a result).[10]

The court ruled that such evidence was not offered, and transaction was permitted. The legal outcome was not difficult to forecast. Such claims of consumer harm as were made in the vertical merger case are difficult to establish, and legal scholars have noted that similar cases against vertical mergers are rare.[11] The Government's argument was that combining Time Warner's network program ownership with AT&T's retail video subscriber business would allow the merged firm to raise wholesale prices (license fees) on the cable networks sold to other distributors. Should those cable or satellite operators (say Comcast or DISH) resist, AT&T could terminate their program access and reap some benefit in higher DirecTV subscription take-up (as AT&T's subsidiary would have network shows not available on rival systems). Yet Time Warner had previously been integrated with a major cable TV service provider – Time Warner Cable – and had voluntarily chosen to spin the subsidiary off into a separate, stand-alone operator in 2009. This divestiture sacrificed whatever such strategic ploys were available from integration, suggesting that the benefits of "foreclosure" were illusory.[12]

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[8] "[T]he rule of reason now governs all vertical agreements" (footnote omitted). Louis Kaplow, *The Meaning of Vertical Agreement and the Structure of Competition Law*, ANTITRUST LAW JOURNAL (2016), pp. 563-630.
[9] *U.S. v. AT&T*, opinion of D.C. Circuit (June 12, 2018), p. 3.
[10] Ibid. p. 90.
[11] "The DOJ's recent challenge of the AT&T-Time Warner acquisition was the first vertical merger challenge that went to court in forty years." The Global Antitrust Institute (GAI) at the Antonin Scalia Law School, George Mason University, *Comment: The Federal Trade Commission's Hearings on Competition and Consumer Protection in the 21st Century, Vertical Mergers* (Sept. 6, 2018), p. 11.
[12] Thomas W. Hazlett, "Why the government will lose to AT&T," *Reuters* (March 23, 2018).

IV. Digital Platforms.

Much interest revolves around the competitive issues now concerning digital platforms. These institutions bring to the fore the conflicts between the two primary ways we tend to think about competitive enterprise:

(1) as an equilibrium where the state of competition reflects market concentration;
(2) as a process where rivalry to innovate produces corporate winners and losers.[13]

It may seem straightforward that firms with high market shares (as in the competitive model in [1]) tend to under-perform from a Consumer Welfare perspective; that is, with dominance, such companies are not incentivized to improve prices, customer service, or products. Yet, it is not. A major theme in economic theory for a century or more is that firms compete over time to achieve dominant market positions, and that this quest encourages (and rewards) risky investments undertaken to innovate. "Schumpeterian competition" focuses (as in [2]) on the social gains from this process to achieve market power, discovering superior business models and technologies as the path to profit.[14]

Indeed, one of the most important recent topics in business economics is the problem innovative firms confront when they improve products or market structures. An important 1986 article by David Teece attempted to "explain why innovating firms often fail to obtain significant economic returns from an innovation, while customers, imitators and other industry participants benefit." The observed approach is "for the innovating firm to establish a prior position in these complementary assets."[15] Where successful, this strategy bridges the gap between risk and return, promoting the creation of socially valuable assets.

Hence, platforms are often reliant on vertical integration. Firms tend to diversify at different, key points in an ecosystem such that the beneficial outcomes they create pay off for their shareholders as well as for others. This is a rationality loop, incentivizing innovation with a feedback loop that fuels social progress.

Nested within this general approach are a wide variety of industrial structures and business strategies. It is noteworthy that many of the complementary investments that spur platform creation are made via non-profit contributions on "open platforms." Jonathan Barnett

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[13] See David J. Teece, *Big Tech, Dynamic Competition, and Antitrust*, Working Paper, Institute for Business Innovation, Haas School of Business, U.C. Berkeley (Nov. 21, 2019), p. 9.

[14] Joseph Schumpeter's famous paradigm of "creative destruction" was posed as an alternative to the view that "perfect competition," with numerous small firms selling at market prices influenced by no single firm, was the best outcome for consumers or society in general. ""[I]n capitalist reality as distinguished from its textbook picture, it is not that kind of competition which counts but the competition from the new commodity, the new technology, the new source of supply, the new type of organization (the largest-scale unit of control for instance) – competition which commands a decisive cost or quality advantage and which strikes not at the margins of the profits and the outputs of the existing firms but at their foundations and their very lives. This kind of competition is as much more effective than the other as a bombardment is in comparison with forcing a door…. [it is] the powerful lever that in the long run expands output and brings down prices…It disciplines before it attacks." Schumpeter, Capitalism, Socialism and Democracy (Harper; 1942), pp. 84-85.

[15] David J. Teece, *Profiting from technological innovation: Implications for integration, collaboration, licensing and public policy*, 15 RESEARCH POLICY (1986), 285-305.

documents how many firms have literally given away property rights to key technologies in order to help invigorate the cooperation of other firms – "strategic forfeiture." IBM developed and then put valuable UNIX computer code into the public domain, seeking to build complementary assets that would stimulate demand for its mainframe computers. Nokia undertook a similar approach in vesting its Symbian mobile operating system software in a non-profit foundation that was owned by multiple stakeholders (including Nokia). This was undertaken to promote Nokia's mobile devices.[16]

The terms and conditions on which the technologies are spun off (including the nature of the "open" licenses issued for intellectual property) are determined by the divesting owner. More deeply, the actions show the far-reaching importance to the innovator in gaining broad acceptance of its platform, and how it is key for such firms to position their investments in multiple spaces in an emerging ecosystem. It is this diversification that spontaneously leads to vertical integration as part and parcel of an efficiency-creating enterprise.

V. Efficiency and Scale.

The Digital Economy sees disruptive events with some frequency, and it appears a commonplace that entrants may destroy established giants.[17] Many of these innovations leverage efficiencies available from the creation of large-scale platforms. This is not a new phenomenon, but dates at least to the Industrial Revolution. With advances in communications and transportation networks, as well as the deployment of increasingly advanced agricultural and factory technologies, distinct economies of scale were discovered. These allowed increases in labor productivity and raised living standards, leading to what Deirdre Nansen McCloskey hails as "the Great Enrichment."[18]

Efficiencies from scale increases are not automatic, but they they can be highly beneficial. Proposing to categorically restrict them – as did the late Supreme Court Justice Louis Brandeis, who opposed low prices and even volume discounts -- is a dangerously anti-consumer policy.[19] Nobel Laureate Oliver Williamson contributed an important counter argument in 1968 that scale economies should be explicitly considered in merger cases, allowing combinations where enhanced size would unleash productive gains. This view became widely accepted by lawyers, judges and economists as sound policy.[20] This

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[16] Jonathan Barnett, *The Host's Dilemma: Strategic Forfeiture in Platform Markets for Informational Goods*, 124 HARVARD LAW REVIEW (2011), 1861-1938.

[17] The classic discussion is in Clayton Christensen, THE INNOVATOR'S DILEMMA: WHEN NEW TECHNOLOGIES CAUSE GREAT FIRMS TO FAIL (Harvard Business Review Press; 1997).

[18] McCloskey emphasizes ideas, and "trade-tested betterment," as the causative factor in the process. Deirdre Nansen McCloskey, *The Great Enrichment: A Humanistic and Social Scientific Account*, SCANDINAVIAN ECONOMIC HISTORY REVIEW (Spring 2016).

[19] Thomas McCraw, PROPHETS OF REGULATION (Harvard University Press; 1984). The volume, awarded a Pulitzer Prize in History, features an illuminating chapter on the regulatory arguments advanced by Louis Brandeis during his career as a lawyer and legal champion. Brandeis was instrumental in designing the Federal Trade Commission and was later appointed to the U.S. Supreme Court.

[20] This is sometimes claimed to be a "Chicago School" approach specific to the work of Robert Bork (and his influential, THE ANTITRUST PARADOX [Basic Books; 1978]), but Williamson was not a Chicagoan. Moreover, the Harvard Law School approach to antitrust proceeded on a parallel track, as explained in William E. Kovacic, *The Chicago Obsession in the Interpretation of US Antitrust History*, 87 UNIVERSITY OF CHICAGO LAW REVIEW (2020), 459-494.

movement was furthered by empirical analysis showing that markets with high concentration generally appeared to become concentrated due to the expansion of relatively efficient firms. This suggested that the positive correlation between concentration and profitability, as in the "Structure-Conduct-Performance" paradigm in industrial organization, was due to the deployment of efficiencies rather than monopolistic restrictions. The full story was Schumpeterian: the quest for profitable innovation was driving commercial success and simultaneously enhancing pro-consumer efficiencies.[21]

VI. Vertical Integration in the Digital Economy.

This section, through brief description of selected episodes, illustrates how emerging digital platforms have benefited from vertical integration.

a. Apple iTunes.

In the early 2000s, music was being distributed over the Internet, but there were fundamental problems respecting standards, safety, and intellectual property. In explaining the issues, Jack Goldsmith and Tim Wu focused on Kazaa, a software application that allowed peer-to-peer file transfers. It was designed to be radically decentralized, in part to defray liability for copyright infringement. But "Kazaa had endless problems policing bad users who fake files, porn ads, and other abusive content on the network."[22] Spyware and viruses were endemic, while copyright lawsuits from the Recording Industry Association of America raised piracy issues.

The situation was chaotic, what some might call "market failure." But a solution was soon to emerge. "Instead of going to war with the recording industry," write Goldsmith and Wu, Apple "struck a deal" with them.[23] The computer company introduced iTunes in April 2003. While some skeptics scoffed at the idea of charging $0.99 a song (*how can you beat free*?) or the relatively small catalogue of iTune titles at launch (200,000), the popularity of the new service was overwhelming. In the first week, one million songs were purchased.[24] By June 2005, Apple sales were outpacing all the peer-to-peer services, and the company, in financial distress just a few years before,[25] was on its way to becoming the highest valued firm in the world.

The iTunes venture was an integration from Apple's computer business. And Apple's iPod, a digital music player, was linked: iTunes was the one place customers could download content. This exclusivity was a key portion of Apple's strategic effort, extending the company's long-standing reliance on producing complementary products in-house. This was hugely controversial, prompting none other than Bill Gates to urge Apple to open its ecosystem, taking on computer producing partners, in a now famous 1985 letter. Gates told Apple executives that they needed to "make Macintosh a standard," but that no company –

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21 Harold Demsetz, *Industry Structure, Market Rivalry, and Public Policy*, 16 JOURNAL OF LAW & ECONOMICS (April 1973), 1-9.

22 Jack Goldsmith & Tim Wu, WHO CONTROLS THE INTERNET (Oxford; 2005), pp. 116-17.

23 Ibid., 119.

24 Brian X. Chen, *April 28, 2003: Apple Opens iTunes Store*, WIRED (April 28, 2010).

25 Jim Carlton, APPLE: THE INSIDE STORY OF INTRIGUE, EGOMANIA, AND BUSINESS BLUNDERS (Times Books; 1997).

not even IBM – could do that alone. His interest at Microsoft, not to go public until the following year, was to expand Apple's software platform where Microsoft's applications were prominently displayed.[26]

The iPod/iTunes bundle was hugely successful, and quickly attacked by European antitrust authorities.[27] That was because "the subscription to iTunes forces a consumer to purchase an iPod to enjoy the downloaded music on a portable music player."[28] The integrated approach followed Apple's general integration strategy, but was seen as a threat to competition. It was not. Rival platforms were available from Samsung, Sony and others, and over the long haul the tight integration has given way to alternative arrangements. But the packaging helped create a platform, and soon an entire industry was born.

b. Amazon's eCommerce Platform.

Amazon was launched as a project to sell books online. When that went well, it integrated into countless other product markets, becoming "The Everything Store."[29] It has emerged as the world's most valuable brand,[30] and it finished 2019 as one of the top three most valuable companies globally.

In an important and influential 2017 article, Lina Khan argues that Amazon's platform is enmeshed in a "anticompetitive conflicts of interest."[31] In hosting third party vendors to sell products on Amazon, for instance, the host monitors product sales and observes prices charged – "the company has used 'insights gleaned from its vast Web store to build a private-label juggernaut.'"[32] Overall, "Amazon seeks to cut out the independent seller."

Perhaps a go-it-alone strategy might be efficient, á la Apple. But the asserted vertical integration is itself contradicted by the facts. In 1997, the year the company issued its Initial Public Offering, 97% of the product sales on the Amazon website were supplied by Amazon itself. In 2018, just 42%. (See Figure 1.) Rather than stealing lucrative markets from retail vendors, Amazon has grown large by building a platform hosting independent vendors who, in turn, pay for Fulfilllment-by-Amazon (services provided to vendors by Amazon) because of the efficient sales platform offered. Amazon profits from this trade volume, earning about one-quarter of gross third-party sales via commissions and services (including shipping), about $40 billion in revenues in 2019.[33]

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[26] Ibid., pp. 40-43.
[27] Thomas Hazlett, *Antitrust regulators must listen to reason on iPods,* FINANCIAL TIMES (July 12, 2006), p. 15.
[28] Eddy Hsu, Antitrust Regulation Applied to Problems in Cyberspace: iTunes and iPod (2005), 117-36, p. 118.
[29] Brad Stone, THE EVERYTHING STORE: JEFF BEZOS AND THE AGE OF AMAZON (Little, Brown; 2013).
[30] *Amazon beats Apple and Google to become the world's most valuable brand*, CNBC.com (June 11, 2019).
[31] Lina Khan, *Amazon's Antitrust Paradox*, 126 YALE LAW JOURNAL (Jan. 2017), p. 717.
[32] Ibid., p. 782 (quoting an e-commerce analyst).
[33] *Amazon Gross Merchandise Volume $277 Billion in 2018*, MARKETPLACE PULSE (April 12, 2019).

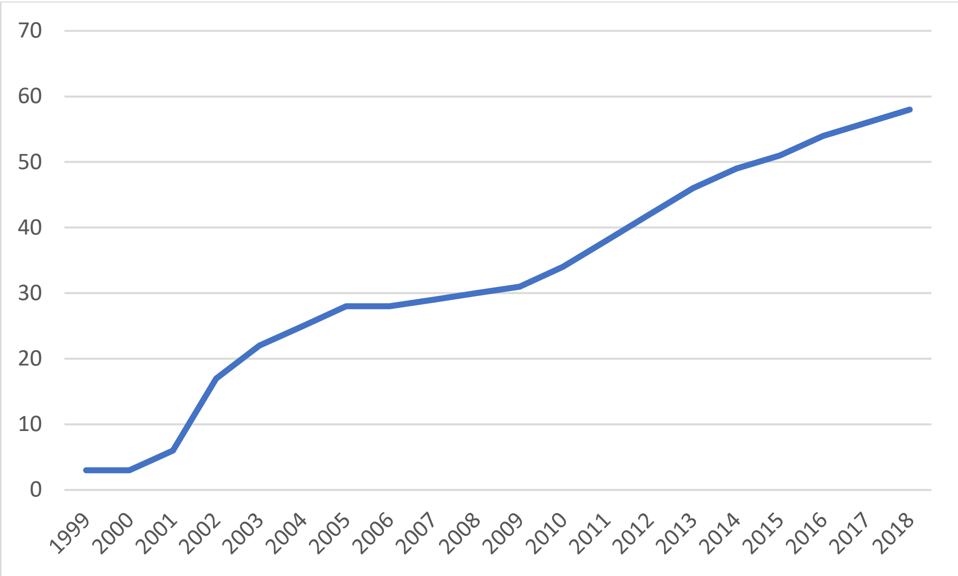

FIG. 1. PERCENT OF AMAZON GROSS PLATFORM SALES BY NON-AMAZON SELLERS[34]

Were Amazon appropriating these sellers, it would be curious why Amazon was developing such a popular sales service for third party vendors. A rival platform has existed in eBay, a firm that in 2005 was three times the market capitalization of Amazon.[35] eBay is a "pure" reseller, auctioning only merchandise sold by independent firms, and hence avoids the mixed incentive conflicts asserted to undercut Amazon's platform. Yet, Amazon accounts for nearly twice the gross merchandise volume as eBay, counting only non-Amazon vendors, today.[36]

Vertical integration led Amazon to innovate in markets beyond eCommerce, most notably in the launch of Amazon Web Services (AWS), also known as "the cloud." This extension of the platform began in 2006, offering firms and individuals access to high-capacity data storage, retrieval, and processing services. It is has proven highly profitable, and AWS is now seen by financial analysts as comprising roughly one-half of total Amazon capital value.[37] As Bezos thought his firm enjoyed "a natural advantage in its cost structure and ability to survive in the thin atmosphere of low-margin businesses."[38] In 2019, Amazon accounted for 47% of global cloud revenues, with Microsoft Azure at 22%, Alibaba 8% and Google 7%.[39]

The cloud serves to reduce important barriers to entry in the economy generally, a strategic goal motivating the integration. As described by Amazon CEO Jeff Bezos:

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[34] Source: *3rd-party sellers are thriving on Amazon*, BUSINESS INSIDER (May 13, 2019).
[35] Stone 2013, p. 194.
[36] Natalie Gagliordi, *eBay beats Q4 expectations, GMV down 5%, eBay said gross merchandise volume was down 5% year over year to $23.3 billion*, BETWEEN THE LINES (Jan. 28, 2020).
[37] *How Much Is Amazon Web Services Worth On A Standalone Basis?* FORBES (Feb. 28 2019).
[38] Stone 2013, p. 221.
[39] Katy Stalcup, *AWS vs Azure vs Google Cloud Market Share 2019: What the Latest Data Shows*, PARK MY CLOUD (Apr 30, 2019).

> The best analogy that I know is the electric grid. You go back in time a hundred years, if you wanted to have electricity, you had to build your own little electric power plant, and a lot of factories did this. As soon as the electric power grid came online, they dumped their electric power generator, and they started buying power off the grid. It just makes more sense. And that's what is starting to happen with infrastructure computing.[40]

c. AOL

One of the key contributions enabling the emergence of the mass-market Internet involves the promotion of dial-up Internet access by America Online in the 1990s. AOL promoted easy-to-use sign-up disks, making access attractive to those without a technical bent. It also created proprietary program services, putting subscribers in a "walled garden" available only to AOL members. This vertically integrated, exclusive environment changed over time, as AOL's Internet service scaled back to supplying simply network access, responding to the growth of non-AOL content and the demands of its customers to go straight to the public Internet. But the success of the company, which became the largest Internet Service Provider by the end of the millennium, was instrumental to the growth of the overall ecosystem.[41]

Another important vertical integration offered by AOL was Instant Messaging. The service became extremely popular, and by the time of the 2001 merger between AOL and Time Warner, had attracted a 140 million users. The Government, in initially opposing the merger (the Federal Trade Commission filed its opposition, and then permitted the transaction based on certain conditions), mandated that AOL's IM offer interconnection to rival messaging services. These terms proved irrelevant. AOL's asserted market power, by itself or via a vertical relationship with the country's largest ISP, could not sustain the service against new rivals that were *not* interconnected. Today, computer and mobile device users have a wide variety of messaging services to use; some are integrated with other services (texting, Facebook messaging, Google messaging, etc.) and yet they are not linked (inter-connected) to their rivals. While AOL IM pioneered an important idea, its contribution was benign. (My article on the AOL-Time Warner merger, published on the anniversary of its twentieth anniversary, is Attachment 1.)

VII. Conclusion

Business model competition shapes markets en route to the discovery of varied and surprising forms of competitive superiority. The experimentation is valuable. Where anti-competitive outcomes result, it will – as per wide observation and empirical research – be the exception rather than the rule. In my opinion, categorically suppressing discovery risks errors that are decidedly weighted against efficiency and consumer welfare.

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40 Stone 2013, p. 221.

41 *See* Kara Swisher, AOL.COM AOL.COM: HOW STEVE CASE BEAT BILL GATES, NAILED THE NETHEADS, AND MADE MILLIONS IN THE WAR FOR THE WEB (Crown Business; 1998).

ATTACHMENT 1

THE WALL STREET JOURNAL

A Lesson for Today's Tech Trustbusters

The AOL-Time Warner merger was going to dominate the internet. Today both companies barely exist.

By Thomas W. Hazlett
Jan. 9, 2020 7:01 pm ET

PHOTO: PHIL FOSTER

It was the biggest corporate merger in history, and it stunned the markets. On Jan. 10, 2000, America Online, the world's largest internet service provider, bid $183 billion for Time Warner, the world's largest content provider. Steve Case, AOL's CEO, talked of "the global company for the internet age." Investor Roger

McNamee called the event “transformational.” It was widely anticipated to be the start of something significant.

But the merger tanked. Time Warner cast off AOL in 2009. Verizon acquired AOL in 2015 for $4.4 billion, less than 1% of its 2000 value, adjusted for the S&P 500 index. AT&T bought Time Warner in 2018 for 20% of the adjusted price AOL paid in 2000. The merger’s failure is often attributed to executive mismanagement and clashing corporate cultures. But the episode holds lessons for politicians and antitrust regulators, who too often view market rivalry too narrowly.
America Online was enjoying big success: The company brought easy internet access to some 22 million subscribers. AOL rode the crest of the tech bubble, complete with a fabulous valuation. But competitive challenges lurked. AOL’s dial-up service chugged along traditional phone lines, even as cable and phone companies were building faster broadband networks. In 2000, AOL’s subscriber base dwarfed the U.S. high-speed market by a 3-to-1 ratio. By 2006, broadband users dominated AOL’s base 5 to 1.

Regulators feared AOL’s acquisition of Time Warner would stifle innovation. University of Michigan economist Jeffrey MacKie-Mason, who wrote the Federal Trade Commission’s report, said that the combination “will horizontally and vertically increase AOL’s power in the market for internet online services,” which would have anticompetitive effects and harm consumers.

The thinking was that a combined service and content provider would favor its own content and make life miserable for would-be internet upstarts. That would hamper the development of the entire system. As then-FTC Chairman Robert Pitofsky put it: “Our concern here was with access, that these two powerful companies would create barriers that would injure competitors” of AOL and Time Warner.

The merger went forward only after a settlement with the FTC that included several conditions: AOL would open its Time Warner cable systems to competing internet service providers such as EarthLink. AOL would not discriminate against content from rival firms—say, restricting downloads from CNBC to protect AOL’s

Motley Fool. AOL would make AOL instant messenger, the company's hugely popular texting app with 140 million users, compatible with similar tools on other platforms.

But the market turned out to be far more robust than imagined. The remedies put forth by antitrust regulators were ineffective and even irrelevant. Few could have predicted the creative destruction that would follow.

The worry about market power among internet service providers turned out to be illusory. AOL flopped, along with EarthLink, AT&T's Excite@Home and Time Warner's Road Runner. What mattered was networks: cable modems, digital subscriber lines, fiber, eventually broadband mobile and now 5G. Lags in spectrum allocation have hindered progress, but not the strategies feared in AOL-Time Warner.

Concerns about vertical foreclosure proved overblown, as Time Warner's premier media properties—Time, Life, People, CNN and HBO—faced fierce new competition. In 2009, Time Warner voluntarily spun off Time Warner Cable. Meanwhile a crush of apps and services came from firms such as Google, Facebook, Netflix, Amazon, Apple and Spotify. None of these entrants owned "last mile" networks, but they succeeded anyway.

And after the FTC opened up Instant Messenger, the app was promptly buried by better services. Texting, Skype, FaceTime, WhatsApp, Facebook Messenger, Twitter and Instagram displaced AOL's chatting program. None of these new entrants connected with Instant Messenger, or one another, and it didn't seem to matter.

There are lessons here for the left-right condominium on antitrust. Elizabeth Warren says tech companies have "bulldozed competition" and "tilted the playing field against everyone else." She demands the government break up tech companies. Steve Bannon has said that companies such as Google and Facebook "are so essential to daily life that they should be regulated as public utilities."

These arguments will likely one day seem as quaint as the alarm over AOL’s acquisition of Time Warner. And it isn’t an isolated example. In 2005 the Bush administration prevented Blockbuster from acquiring Hollywood Video on antitrust grounds: The merger would threaten to monopolize video rentals. Blockbuster filed for bankruptcy in 2010 and today has a single store, in Bend, Ore. It sounds like the plot for a movie, if Netflix is interested in making it.

Mr. Hazlett, an economics professor at Clemson University, is the author of “The Political Spectrum: The Tumultuous Liberation of Wireless Technology, from Herbert Hoover to the Smartphone.”

ATTACHMENT 2

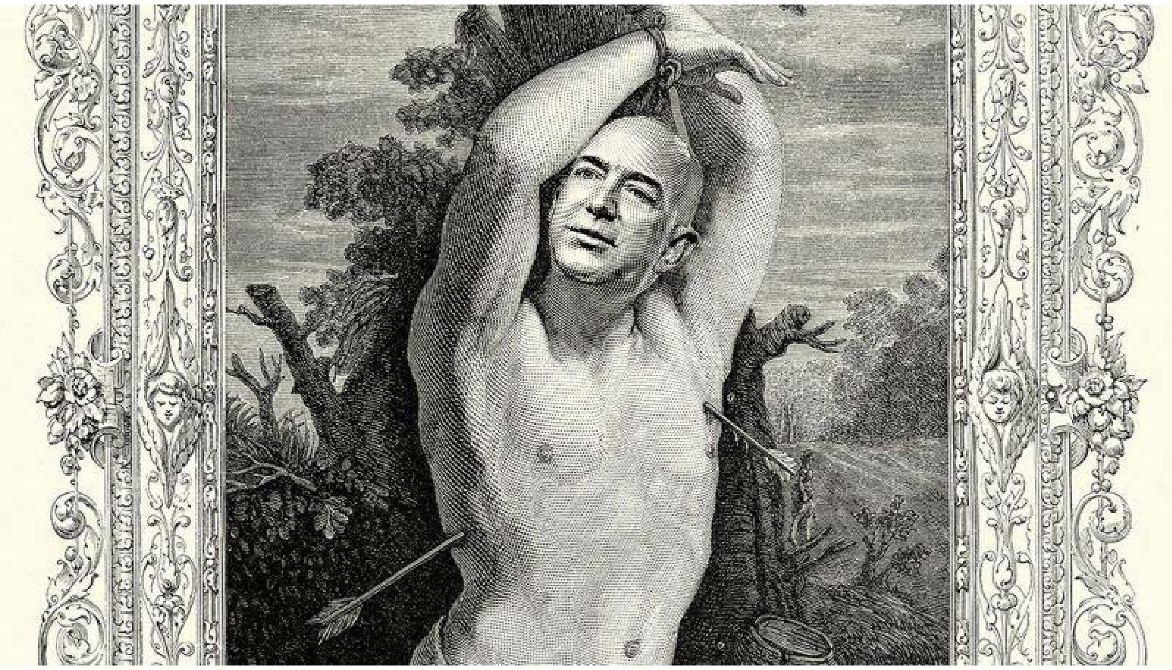
reason
Free Minds and Free Markets

ANTITRUST

The New Trustbusters Are Coming for Big Tech

Left and right are joining forces under the banner of "hipster antitrust."

THOMAS W. HAZLETT | FROM THE OCTOBER 2019 ISSUE



(Joanna Andreasson. Source images: duncan1890/iStock; Seattle City Council/Wikimedia)

Jeff Bezos "is worried about me," grinned Donald Trump back in 2016 while discussing Amazon's bald-headed billionaire. "He thinks I would go after him for antitrust, because he's got a huge antitrust problem because he's controlling so much." President Trump has continued to threaten Amazon and other tech giants with the trust-busting lash. This year, on CNBC, he informatively announced his role model: "The European Union is suing them all of the time. Well, we should be doing this. They're our companies."

You will not be surprised to hear that Fox News talker Tucker Carlson agrees with Trump. But you might blink when told that he arrived at this agreement via a lecture delivered by Professor Elizabeth Warren. The Massachusetts senator has gained traction in a crowded Democratic presidential field by announcing pre-election antitrust verdicts to bust up Amazon, Apple, Google, and Facebook—no legal proceedings required.

Carlson sprinkles conservative holy water upon Warren's Plan for Economic Patriotism, saying her "policy prescriptions make obvious sense." Warren would treat the rise of big tech firms like an exploding offshore oil rig: an emergency to be met by capping, closing, and hosing down the fiery mess. Carlson gushes that Warren "sounds like Trump at his best."

This bipartisan pot of pols and pundits is echoing a school of thought known as the "new structuralism." But you're more likely to hear its nickname: "hipster antitrust." It claims a historical hero in the late Supreme Court Justice Louis Brandeis, and its manifesto is Lina Khan's 2017 *Yale Law Journal* article "Amazon's Antitrust Paradox."

The antitrust hipsters fear the "winner take all" rivalry in tech platforms while romanticizing the drowsy world of "common carrier" regulation. As seen in transport and communications, this regime has had its unfortunate place in history. While imposing so-called "nondiscrimination" rules on service providers under the auspices of giving everyone equal access, the regulations widely and deeply favor incumbents and legacy technologies at the expense of upstarts and innovation.

In the hipsters' telling, regulation and antitrust are princes riding white horses to our salvation. The computer company IBM was an unrepentant oligopolist, they say, until it was put on the straight and narrow by a federal antitrust suit in 1969. That police action opened the market for Microsoft, which then started monopolizing the software business. Thankfully, the 1998 *U.S. v. Microsoft* suit busted that diabolical plot. If not for this victory for the Department of Justice Antitrust Division, Google would have been nipped in the bud. Alas, Google's search function then got much too popular, and now it must be disciplined. Indeed, Amazon, Google, Facebook, and Apple have *all* grown too big for their britches. Each needs to be split up. They would already have been, in fact, had the cop on the beat not dozed off.

This pattern-recognition exercise is a reprise of Justice Brandeis' early 20th century legal attacks on price-slashing innovators such as A&P, Safeway, Sears, Montgomery Ward, and J.C. Penney. Then, as now, each triggering offense was a daring market breakthrough that consumers flocked to embrace. Legislation procured by those who, like Brandeis, saw these commercial successes as threats did more to promote cartels than to promote competition: Oligopolies flourished under the auspices of the Interstate Commerce Commission (ICC), the Federal Communications Commission (FCC), the Civil Aeronautics Board (CAB), and the U.S. Department of Agriculture, with grim effects. Under the rule of the CAB, for example, air carrier competition was drastically reduced. In one of the "most bizarre and illuminating chapters in the history of regulation," Harvard law professor Louis Jaffe wrote in the *Harvard Law Review* in 1954, only 30 percent of air traffic could be sold at coach fares—and that discounting existed only because "unscheduled" airlines brazenly evaded a government ban. "The CAB is completely committed to the existing certificated carriers," Jaffe explained.

And while the ICC brought stability to railroads, it did so while creating higher average prices. The agency, which was established in 1887, was abolished in 1995 for undermining railroad and trucking efficiencies, wasting fuel, savaging the environment, killing economic growth, and waterboarding consumers. With less "public interest" and more open market rivalry, shipping costs were slashed, pollution declined, and innovation sprouted. A Brookings Institution study pegged efficiencies at $18 billion in 1996 alone, while crediting deregulation for allowing the emergence of new competitors in overnight shipping, including Federal Express.

Waves of deregulation produced protean results elsewhere, too. Legacy markets have been disrupted and powerful incumbents have fallen, with the choices available to consumers proliferating. The emergence of competitive wireless networks—granting 6 billion human beings access to global communications, 5 billion of them new phone subscribers—is itself a prime example of this liberalization. The antitrust hipsters present themselves as populists, but it is a curiously elitist form of populism that would undo the laws that allowed those mass market gains.

Antitrust was recently pushed to advance consumers' welfare. That was part of the liberalization trend. Now it's being tugged back to form a support system protecting "competitors"—guarding *against* low prices, escalating quality, and market rivalry.

Amazon Crime

For Khan, a legal scholar currently based at Columbia University, the problem with today's market is epitomized by the operations of one firm. Amazon "generates meager profits," electing to keep prices low while "choosing to expand at a speed and scale that is pushing it into the red," she writes. It has risen to become the world's second most valuable firm, worth about $1 trillion, because it is "at the center of e-commerce" and owns "essential infrastructure for a host of other businesses that depend upon it."

That infrastructure—a platform spanning the planet—certainly is valuable. Amazon lists more than 400 million product pages from more than 300,000 independent vendors, creating the "long tail" of niche goods and services that shoppers adore. *Recode* reported in 2018 that "more than 100 million items in the U.S. are now eligible for two-day shipping." Most of these are sold by companies other than Amazon, which not only hosts "rival" vendors but takes orders, ships products, and collects payments on their behalf. About half of these businesses generate over $100,000 a year.

For Khan, Amazon creates competition but also crushes competition. It is ensnared in a maze of conflicts, she says, and it routinely engages in predatory tactics—such as favoring its own listings—that steamroll pesky upstarts to protect Amazon's ruthless march to world domination. Yet Amazon's prices have been low for 25 years now. Khan doesn't deny that. In fact, it's what she complains about: The company's offerings are *too good* for other sellers to compete with.

There is a germ of truth in Khan's complaints about Amazon's conflicts, but she fails to see the ubiquity of conflicts in economic rivalry—and in government regulation, which can *worsen* outcomes for consumers and the overall economy. Hence, she interprets vertical integration—Amazon supplying an online store and then stocking some of the shelves with its own products—in a naive and counterproductive way.

Every business acquires inputs and then sells outputs. In between, some magical process creates new value. Cooperative deals between suppliers and buyers today may well erupt in rivalrous tension tomorrow. That's actually a good thing: We want to encourage shifting alliances. Customers change; technologies advance; firms learn; efficiencies evolve. Amazon hosting its retail rivals is no weirder than Costco displaying its own Kirkland champagne side-by-side with Veuve Clicquot or the Dodgers hosting the Giants in Dodger Stadium.

Antitrust scribblers may imagine Amazon squelching independent sellers and stealing their profits, but that's not the reality according to the vendors. Hundreds of thousands of third-party sellers have made Amazon "the Everything Store." From 1999 to 2018, Amazon's own share of the products it sells dropped from 97 percent to 42 percent. And even that overstates Amazon's vertical integration. Marketplace—the platform for third parties who offer goods through Amazon—now accounts for 68 percent of the platform's retail revenues.

"More buyers transacting more often on Amazon will naturally attract third-party sellers," eMarketer analyst Andrew Lipsman told *TechCrunch* last year. "But because third-party transactions are also more profitable, Amazon has every incentive to make the process as seamless as possible for those selling on the platform." In May 2019, *Business Insider* headlined the news "3rd-party sellers are thriving on Amazon."

In Khan's telling, all the economic forces move in opposite fashion. She recommends a ban on mergers and more aggressive actions to limit or scale back the platform.

Take Amazon's recent acquisition of Whole Foods for $13.7 billion. Khan blasted the combination in a June 2017 *New York Times* op-ed titled "Amazon Bites Off Even More Monopoly Power." The fear was that a company with 0.8 percent of U.S. grocery sales (Amazon) gobbling up a competitor with 1.7 percent (Whole Foods) would leave American shoppers powerless to resist. Walmart's 26 percent share of total grocery sales, not to mention Kroger's 10 percent or Albertson's 5 percent, would not constrain the beast. Neither would the fact that, in the year the merger went through, just 3.8 percent of U.S. groceries were sold online.

"Amazon's purchase of Whole Foods will expand its dominance and heighten conflicts of interest," Khan predicted. "By bundling services and integrating grocery stores into its logistics network, the company will be able to shut out or disfavor rival grocers and food delivery services."

Her predictions have thus far proven wrong: Amazon's rivals gained after the merger. "In the past year," the *Harvard Business Review* reported in April 2019, "Walmart, Kroger, Costco, and Target have driven down costs and introduced delivery capabilities in new regions, cutting into Amazon's market share." They're afraid of the online retail giant? Good.

The rivals' fortunes may still change. Who knows? Not Khan, not the Justice Department, not Amazon. Absent demonstrable harm, letting things play out produces robust competition, oodles of innovation, and even new competitors, such as Instacart, launched in 2012 by a former Amazonian. That company boasts that it delivers alcoholic beverages to your home in as little as one hour. Which is, of course, not a moment too soon.

Khan ignores these dynamics. Or rather, she actively opposes them.

Conventional wisdom holds that U.S. corporations are painfully shortsighted. It's said they scurry about with an eye to quarterly earnings while ignoring the broader horizon. It's said that this undermines the risk-taking and R&D investments that are needed to unlock better worlds. But Khan launches her 96-page essay with this quote from *The New York Times*: "Even as Amazon became one of the largest retailers in the country, it never seemed interested in charging enough to make a profit. Customers celebrated and the competition languished." She also quotes the biographer Ida Tarbell, who said that one of John D. Rockefeller's "most impressive characteristics [was] patience."

The Fable of the Diapers

Back in the day, Khan argues, antitrust policy would have stopped the clear and present danger of Amazon. But free market economists, mostly from the University of Chicago, have twisted the law to focus solely on "consumer welfare" as measured by "prices and outputs." And so, she says, monopolies thrive. Things that look to be amazing new efficiencies, driven by economies of scale, are a trick: Predatory tactics displace competitors, steal markets, and dominate entire industries in the long run.

The paradigmatic illustration is Amazon's acquisition nine years ago of Diapers.com. Yet a close look at her selected case study undercuts the lessons taught in Lina Khan's academy.

In short: Marc Lore and Vinit Bharara launched the online retailer Quidsi in 2005. The startup sold baby products online, and its Diapers.com website gained a toehold. In November 2010, the pair sold their company to Amazon. Khan claims that Amazon actually squished them like a bug, using its massive data intelligence capabilities to crack their strategy. By figuring out how to reduce its own diaper prices, it drove Quidsi to the financial brink and then devoured it via merger in order to eliminate a retail rival. The upstart was vanquished, the monopolist got fatter, and all potential challengers were forewarned.

Khan's story is sourced from Brad Stone's 2013 book *The Everything Store*. Stone reports, but Khan does not, that the story of Amazon's strategy is in dispute. This missing detail is one among many. But it turns out to be a harmless oversight, because Khan's own facts, nested in the context of competitive innovation, are indisputably hostile to her theory.

First, there was no barrier to entry. Quidsi got into the business of selling Pampers and Huggies online, which Amazon could not prevent. The newcomer then pioneered innovative methods, particularly in shipping, using boxes that fit orders exactly so as to lower costs. This welcome progress stands in stark contrast to what happens under "public utility" regimes in which "licenses of convenience and necessity" are routinely denied to upstarts. Airlines, railroads, medical services, trucking, shipping, broadcasting, telecommunications, energy—in every one of these cases, commissions have erected artificial entry barriers deterring competition. Not a single new trunk airline was approved for launch by the Civil Aeronautics Board from 1938 to 1978. With unregulated diapers sold online, two guys from New Jersey formed a firm and walked right in.

Second, the Jersey boys did a better job of cleaning up the babies' bottoms. Yes, Amazon sells competing products, and yes, it has bots that relentlessly monitor competitive offers. But by 2010, Diapers.com was outselling the ogre from Seattle by about four to one. When Lore and Bharara sold to Amazon, they received a payoff of $545 million, or about $400 million above invested capital. If Amazon is a predator trying to discourage entrants, it is going to need some powerful corporate messaging to overcome the language its cash is speaking.

Third, founder Marc Lore didn't lose his entrepreneurial bent. In 2014, he founded Jet.com, an online retailer and direct rival to Amazon. In 2016, he sold that start-up for $3.3 billion to Walmart. Lore—a billionaire who bought a $43 million flat in one of New York City's finest buildings in 2018—now heads the brick-and-mortar retailer's eCommerce division. If this is what Amazon's economic brutality looks like, quick—let's crowdfund AdultDiapers.com and get pummeled.

Fourth, the gains for consumers were not just temporary. Khan says Amazon immediately ceased its price discounts on products sold by Diapers.com after absorbing the site. But hers is a vague and selective presentation; suffice it to say that the evidence would not be admissible in a court of law. I do not have a dataset as extensive as Amazon's, but online prices for many brands over time can be found on Google. Huggies, Snuggles, Pampers, Luvs, and Seventh Generations were about 18 percent cheaper in online stores (free delivery with minimum purchase!) in 2019 than they were in mid-2010. Mommies and daddies clicked away—and won. No predatory exclusion, no monopoly, no price hikes to recoup the investment. Just good, clean, bottom-up consumer welfare.

Finally, Khan makes a major concession when she argues (uncompellingly) that prices rose after the Amazon-Quidsi merger. Throughout her critique of modern antitrust, she complains about the fact that the law focuses "primarily on price and output effects as metrics of competition." But there's a good reason for that, and courts ought to be encouraged to do more of it. These are the indices that impact customers and distinguish efficient rivalry from predatory conduct. Under the latter, prices fall, but only temporarily, and the price increases that come after wipe out the benefits for customers.

So Khan was right to consider Pampers prices as a metric of consumer impact. Alas, she makes no serious commitment to this approach. If she did, she would have to demand that regulatory measures advance their stated purpose and that they do not sabotage the constituency being offered protection. Attacking low prices with antitrust rules that retard innovation and freeze technologies does exactly that.

Even more problematic: As I witnessed up close while testifying as an economic expert retained by the winning side in a class-action suit against a firm found to have engaged in predation, judges can be lost when it comes to what remedies to administer.

"For much of its history," write scholars Joshua Wright, Elyse Dorsey, Jonathan Klick, and Jan M. Rybnicek, "antitrust has done more harm than good." Rulings that block pro-competitive conduct may "have resounding chilling effects…likely to discourage other firms from engaging in similarly beneficial conduct." Leaving an overly dominant firm intact, on the other hand, often creates *less* social risk, because it generates its own offset: The profits earned by the miscreant announce opportunities for others.

Khan falls into this trap when she offers Quidsi as the quintessential upstart entrant but fails to mention its empirical reality. Or, for that matter, its inspiration: Amazon. Lore and Bharara idolized the online giant. They privately referred to Jeff Bezos as "sensei" and wanted to *be* him. And their decision to get into the game was funded by, among others, Accel Partners, a company flush with early-stage windfalls from Facebook. All these monopolies, so many startups.

Brandeis' Folly

The antitrust hipsters' lodestar, Louis Brandeis, championed local enterprises—"the small dealers and worthy men," as his Supreme Court predecessor Rufus Peckham called them—that found themselves fighting the emerging national chains. To Brandeis, the big retailers' low prices were a bug, not a feature. In 1915, the future justice amazed Rep. Alben Barkley (D–Ky.) by testifying that volume discounts were "fraught with very great evil" and should be banned. "Knowing the quantity discounts were as old as business itself," wrote Thomas McCraw in his Pulitzer Prize–winning *Prophets of Regulation* (1984), Barkley "could not believe he had heard Brandeis correctly." He had.

In this way of thinking, the efficiencies of the Industrial Revolution were a problem we needed government to counter. Brandeis condemned the consumer as "servile, self-indulgent, indolent, ignorant," because she would blithely shop for lower prices and higher quality without concern for the social ramifications. It was an unambiguous loss, he believed, for A&P to displace the local grocer and for Sears, Roebuck and Co. to out-compete the town dry goods shop. Brandeis supported cartels to raise prices and protect inefficient producers. He rejected the interests of the "supine" customer, who "deserves to suffer" for patronizing vendors based on cost and convenience. As McCraw put it, Brandeis attacked consumer welfare as an objective because "consumers had betrayed him: They had refused to follow his precepts." Instead, they were eagerly buying "the endless stream of goods that flowed" from the large, integrated businesses that "Brandeis so detested."

Brandeis' view nonetheless gained traction. In 1962, the Supreme Court blocked Brown Shoe (a company producing 4 percent of U.S. footwear) from merging with Kinney's (a company retailing 1.2 percent). The antitrust enforcers then put the kibosh on Vons-Shopping Bag in 1966, saving America from a supermarket behemoth that would have dominated the Los Angeles retail grocery market by cornering—as the third-largest local seller—7.5 percent of sales. That, the high court said, indicated a "threatening trend toward concentration." One wonders what the justices were drinking, but that may have been answered a few days later, when the Court upheld the Department of Justice's move to stop a Pabst-Blatz merger as well.

Just to be clear: If the beer market were being monopolized, I would be the first to buy a case for the legal beagle filing suit. But here I'm not even opening a tab. As the Supreme Court explained: "In 1958, the year of the merger, Pabst was the tenth largest brewer in the Nation and Blatz ranked eighteenth. The merger would have made Pabst the Nation's fifth largest brewer with 4.49% of the industry's total sales. By 1961, three years after the merger, Pabst had increased its share of the beer market to 5.83% and had become the third-largest brewer in the country." The Court ominously noted that their combined shares totaled 23.95 percent of the all-important Wisconsin beer market, raising the prospect of an "incipient" monopoly.

Justice William O. Douglas attached a 1966 *Washington Post* column, written by humorist Art Buchwald, as an appendix to his concurring opinion in the Pabst case. Buchwald's piece considered a future (1978) merger case involving the last two companies in America—Samson, controlling all corporate assets west of the Mississippi, and Delilah, owning everything to the east. The essay had the Court finding no competitive issue. An excellent analogy for Pabst-Blatz: After those two companies assume control of all but 94.17 percent of U.S. beer production, what's left?

Beware the Big Fix

Antitrust hipsters present the free market economists of the University of Chicago as their historical villains. Yet these scholars began their journey not far from Brandeis. The late Nobel laureate George Stigler started as a "bust 'em up" guy: In 1952 he wrote an article in *Fortune* stating the "case against Big Business" and calling for the dissolution of General Motors. But through observation and analysis, Stigler's view progressed until he arrived at an antitrust policy that gave dynamic forces their due and put consumer interests at the center. He came to see government institutions as imperfect, and he posited in a 1971 paper the theory of "regulatory capture," whereby "regulation is acquired by the industry and is designed and operated primarily for its benefit."

Khan claims that ideological motives explain this "effort to idealize competitive markets and assume that nonintervention was almost always superior to interference." Yet a deep and cutting critique of regulation preceded the new Chicago School approach. In 1952, Harvard's Samuel P. Huntington wrote in the *Yale Law Journal* that the "attitude of the railroads towards the [Interstate Commerce] Commission since 1935 can only be described as one of satisfaction, approbation, and confidence." Huntington called for abolishing the agency, saying it had lost "its objectivity and impartiality by becoming dependent upon the support of a single, narrow interest group": the railroads.

Jaffe, writing in that 1954 *Harvard Law Review* article, similarly acknowledged that most regulators had underperformed. Drawing on the extensive writings of former Harvard Law School Dean James Landis, Jaffe noted that administrative supervision of industry was the dream of the Progressive Era and then of the New Deal. But the "planning thesis took almost no account of the character and psychology of our administrators" and "gave too little weight to the dynamism of the industrial system."

Cleaning up the regulatory mess fell, in part, to a Cornell economist: the late Alfred Kahn, an earnest New Dealer for all of his days. Appointed by President Jimmy Carter to head the Civil Aeronautics Board in 1977, Kahn intended to reform the agency. But he found that greater price competition, not to mention service innovation, could not be realized within the model he inherited. Kahn discovered deregulation not by imbibing Chicago School Kool-Aid but through fealty to the public's actual interests. It was because he took his fiduciary obligations seriously that he sought to overturn the "common carrier" approach of the 1938 Air Carriers Act, ultimately ending the agency via bipartisan congressional reform.

Kahn's early scholarly work channeled Thorsten Veblen, who was as critical of consumers' choices as Brandeis was. Yet Kahn studied on. He came to see "that society's choices are always between or among imperfect systems" but that markets generated a dynamism, giving them an edge: "Wherever it seems likely to be effective, even very imperfect competition is preferable to regulation." Paring back controls over air routes and fares has resulted in consumer gains conservatively estimated by the Brookings Institution at $10 billion annually.

No, air travel is not perfect. Yes, I've flown United. But it's all relative. The Civil Aeronautics Board was a comparative disaster for efficiency, innovation, and customers—particularly the low- and middle-income Americans, then earthbound, who now dot the sky.

Policy makers gave the "common carrier" theory of regulation a marathon test drive following the 1934 Communications Act. The FCC, under its "public interest, convenience, or necessity" standard, enhanced Ma Bell's market power. That was, literally and practically, "network neutrality"—the same philosophy endorsed by Lina Khan as a promising pathway for regulating tech giants today.

How did it work out? In 1974, the U.S. Justice Department filed a massive antitrust suit against the company. Settled in 1982, it dissolved the giant into seven "Baby Bells" and an independent AT&T Long Lines.

The reason for the lawsuit was that AT&T, a "common carrier," was preventing competition by using antidiscrimination rules enforced by the Federal Communications Commission. "The FCC was trying to block MCI from competing in ordinary long-distance services when the AT&T case was filed by the Department of Justice in 1974," explained Robert Crandall and Cliff Winston of the Brookings Institution in a 2003 *Journal of Economic Perspectives* article. "Thus, antitrust policy did not triumph in this case over restrictive practices by a monopolist to block competition, but instead it overcame anticompetitive policies by a federal regulatory agency."

There is no secret formula that produces enormous gains from blockbuster innovation without the disruption of old markets and obsolete business models. The "Great Enrichment" that economist Deirdre McCloskey describes—an approximately 30-fold increase in capitalist country incomes between 1800 and 2000, which upended the economic flatline of history—was and is a rough-and-tumble process. That's why Joseph Schumpeter dubbed it "creative destruction."

There are good reasons to be wary of large organizations of any stripe, including giant tech platforms. But far more dangerous—to consumers, workers, and the economy as a whole—are hipster antitrust promises of a magical fix.