Consumer Federation of America

June 14, 2021

Representative Jerry Nadler
Chairman
House Antitrust Subcommittee
U.S. House of Representatives
Washington, D.C. 20515

Representative Jim Jordan
Ranking Member
House Antitrust Subcommittee
U.S. House of Representatives
Washington, D.C. 20515

Dear Mr. Nadler, Mr. Jordan and Members of the Committee,

The Antitrust subcommittee of the House Judiciary has introduced legislation that would impose some oversight on the actions of the dominant big tech companies that sell products and service that are integral to the interests of America's consumers. The industry has taken the position that any constraint on their actions will end the digital revolution and dramatically increase costs for consumers. The Consumer Federation of America emphatically disagrees.

The experiences of our members and many experts have found that digital communications platforms have abused their market power. Fortunately, this abuse can be corrected without undermining the delivery of digital information. Such corrections will not undermine the delivery of digital information. The lack of competition and immense market power of the dominant platforms have made it clear that their abuses cannot be solved in the market. Antitrust oversight is critically necessary and strongly supported by the public, but it must be carefully crafted to address abuses.

The thrust of the legislation, as we understand it, is correct because it empowers the antitrust oversight agencies to do their job, including close examination of anticompetitive acquisitions. It enhances consumer protection and demands interconnection and interoperability on non-discriminatory rates terms and conditions for access to consumers by those who innovate to better serve the needs of consumers. This competition and innovation has been stifled by the dominant incumbent. Other important issues, like protecting consumer privacy, may require other agencies, that are better equipped for the specific task

Critically, the legislation shifts the burden of proof onto the operators of dominant platforms to show that their practices serve the interests of consumers, not the interest of the platform operators. It also removes obstacles to effective antitrust oversight that have grown up in the past several decades of lax (some would say non-existent) oversight.

The key is to empower the authorities to take action, without Congress picking winners (or, more likely, losers). Thus, the legislation reboots antitrust and recalibrates it for the digital economy. All remedies should be (and are) on the table, but the choice of remedies should be at the discretion of the agencies, subject to the goals adopted by the Congress.

I have attached our recent testimony before the Senate Judiciary Committee that provides more detailed on our view of the best approach to reinvigorating antitrust and regulatory oversight over the big, digital platforms.

Sincerely,

Mark Cooper	Amina Abdu	Michael Enseki-Frank
Director of Research	Antitrust Advocacy Associate	Antitrust Fellow

Consumer Federation of America

Testimony of Dr. Mark Cooper, Director of Research on Antitrust Applied: Examining Competition in App Stores Senate Committee on the Judiciary, Subcommittee on Competition Policy, Antitrust, and Consumer Rights

April 21, 2021

INTRODUCTION

My name is Dr. Mark Cooper, I am the Director of Research at the Consumer Federation of America (CFA). We greatly appreciate the opportunity to testify today on what is undoubtedly the most important legislative issue affecting antitrust in the almost forty years that I have been analyzing antitrust issued at CFA. In those four decades we have written hundreds of comments, analyses and papers on various aspects of the harm suffered by consumers when antitrust authorities fail to do their job to ensure that competition protect them.

In my comments today, however, I will draw on three articles and I submit these for the record. They outline the problem and the response from Congress that is urgently necessary: The Hastings Law Review (2001) *Antitrust as Consumer Protection in the New Economy: Lessons from the Microsoft Case;*[1] The Harvard Law and Policy Review (2015), *Antitrust and Regulation: Complementary Tools in the Digital Age,*[2] and *Big Data Platforms, A New Chokepoint in the Digital Communications Sector, Meeting New Challenges with Successful Progressive Principles* [3]

THE PROBLEM OF ANTICOMPETITIVE, ANTI-CONSUMER STRUCTURE AND CONDUCT

The digital communications space, dominated by a handful of platforms using and abusing market power to undermine competition for applications is the most pressing example of lax antitrust enforcement that threatens not only consumers but innovation in the digital economy. As we concluded six years ago,

> [O]ne primary goal of public policy in a dynamic digital economy is to ensure that the market power that is inherent in the platforms does not hinder or diminish the competition for goods, services and applications that can flow on the platform.
>
> We have the model in hand, bright lines behind which entrepreneurial experimentation is unleashed, and strong antitrust principles to constrain market power.[4]

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[1] Mark Cooper, April 52(4).
[2] Gene Kimmelman and Mark Cooper, September, 9(2).
[3] Mark Cooper and Amina Abdu, 2020, Consumer Federation of America, September.
[4] Kimmelman and Cooper, 2015, p. 440.

The great challenge is how to draw the line, to find a set of policies that preserve the incentive and ability to innovate on both sides of the line. Here a little history serves us well.

I recognize that these are all innovative companies that seek and earn innovative rents, when they can. These rents can be called Schumpeterian because they disrupt business as usual and the invention of new goods and services that meet and redefine consumer needs and wants. However, there comes a point when dominant players cease chasing Schumpterian rents and start chasing what I call "Rockefeller" rents. These are rents that accrue to firms not because they innovate, but because they build bigger moats around their businesses, which lock consumers in and competitors out. There are two clear indications that the behavior of dominant firms has shifted, they shift from innovating things to buying up the innovators around them, and they shift from relying on open access to closing the platform down.[5]

History is a good teacher, but there are also lessons to be learned from the study of digital platforms. The complexity of the challenge to writing antitrust rules is described by an extensive study prepared by the Stigler Center,[6] in a study of antitrust, which is summarized in Table 1.

Digital platforms pose a unique challenge for competition and antitrust for a variety of reasons. Table 1 is constructed to highlight the tension in the analysis of the Stigler antitrust group, which mirrors the tension in the digital political economy. We also show references to Tim Wu's recent discussion of antitrust. Here we have a litany of supply-side structural characteristics that explain concentration and market power, and an equally long litany of demand-side characteristics that explain the immense ability of the seller to exploit their market power. The irony is that many of the characteristics of digital markets that pose challenges to competition and antitrust are also the source of the efficiency of the new form of industrial organization.

First, as shown in the upper left, the new form of organization that generates a great deal of surplus also tends toward high levels of concentration and barriers to entry.[7]

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[5] Cooper, 2001, p. 875, One of the most important observations about the origins of appositive feedback process is its openness in the early stages of development. In order to stimulate the complementary assets and supporting services, and to attract the necessary critical mass of customers, the technology must be opened to adoption by both consumers and suppliers. The openness captures the critical fact that demand and s=consumers are interrelated. If the activities of firms begin to promote closed technologies, this is a clear sign that motivations may have shifted. While it is clear in the literature that the installed base is important, it is not clear that the installed based must be so large that a single firm can dominate the market. Open platforms and compatible products are identified as presenting a basis for network effects that is at least as dynamic as closed proprietary platforms and much less prone to anticompetitive conduct.

[6] *Market Structure and Antitrust Subcommittee Report," George Stigler Center for the Study of the Economic and the State*, The University of Chicago Booth School of Business, April 2020, (hereafter, Stigler)

[7] Id/. P. 27. These markets often have extremely strong economies of scale and scope due to low marginal costs and the returns to data. Moreover, they often are two-sided, have strong network externalities and are therefore prone to tipping. If so, the competitive process shifts from competition *in* the market to competition *for* the market. This combination of features means many digital markets feature large barriers to entry. The winner in these settings often has a large cost advantage from its scale of operations and a large benefit advantage from the scale of its data. An entrant cannot generally overcome these without either a similar installed base (network effects) or a similar scale (scale economies), both of which are difficult to obtain quickly and cost-effectively

TABLE 1:
CHALLENGES OF NEW TECHNOLOGY

STIGLER GROUP ON ANTITRUST AND REGULATION **TIM WU (*CURSE OF BIGNESS*, Pg. #)**

Market Characteristics that increase surplus but weaken competition

(1) Average cost is too low (2) Quality costs are too high (3) Transaction costs are too low (4) Advertising costs are too low (5) Advertising value (targeting) with large databases is too effective (for some/many) (6) Consumer preference v. consumer welfare (7) Increased output v. allocation of output (8) Direct network effect value for communications consumers is too (9) Indirect network effect value to producers of complements are too large (10) Local/global expansion costs are too low	**Antitrust Reform** 128 129 134 **Economic Issues** 15, 119, 120,123 124, 125

Traditional conduct that reinforces market power

On the supply-side (11) Limit openness and interoperability (12) Lack of transparency (13) Exclusion or degradation of services (14) Resist data portability (15) Consumer exploited by behavioral economics (16) Complex, opaque transactions On the demand-side (17) Pricing (loyalty and to zero) (18) Contracts (19) bundling (20) Lack of transparency (21) Increasing switching costs (22) Magnifying switching cost through sunk costs and asymmetric information	Antitrust Reform Economic Issues 119

Consumer behaviors that contributes to entry barriers abuse by dominant firms

(23) Inherent behavioral biases (24) Data is open to manipulation & exploitation (25) Manipulation of Consumer preference v. welfare (26) Machine learning is uniquely powerful (27) Lack of availability of Information (28) Failure to research and compare	**Antitrust Reform** 128, 135 137 **Economic Issues** 112,120 123,125

Policy that facilitates or fails to address market power

Lax antitrust enforcement (29) Structure (mergers) (30) Conduct (fraud and abuse) Lack of regulatory authority (31) Ineffective (privacy) (32) Absent (big data exploitation) (23) Severe challenge of assessing consumer welfare (34) Political impact of weak antitrust & absence of regulation	**Antitrust Reform** 16,17,18, 32, 40,41, 42, 72 123, 125 128, 130, **Economic Issues** 123, 132 133, 139

Source: Stigler Committee on Digital Platforms, *Market Structure and Antitrust Subcommittee Report*," *George Stigler Center for the Study of the Economic and the State*, The University of Chicago Booth School of Business, April 2020, Tim Wu, *The Curse of Bigness*, Columbia Global Reports, 2019. .

Second, behavioral imperfections are highlighted. They have been recognized for several decades, making these markets very vulnerable to the accumulation and abuse of market power by dominant firms.

> Additional barriers to entry are, ironically, generated by the very consumers who are harmed by them… In general, the findings from the behavioral economics literature demonstrate an under-recognized market power held by incumbent digital platforms.
> The role of data in digital sectors is critical. Personal data of all types allows for targeted advertising to consumers, a common revenue model for platforms. The report shows that the returns to more dimensions and types of data may be increasing, which again advantages incumbents. Consumer data in the United States is not regulated in any way that gives useful control or privacy to consumers, and additionally, most consumers have little idea what is being collected about them and re-sold. One way in which digital platforms often exploit their market power – and increase their profits – is by requiring consumers to agree to terms and conditions that are unclear, difficult to understand, and constantly changing, but which give the platform freedom to monetize consumers' personal data.[8]

The behavioral economics present a different, and in some ways greater, challenge to traditional antitrust.

> Behavioral economics magnifies the anticompetitive potential and harm of platforms. Consumer biases are vulnerable to big data and competition is not the solution, since the marketplace – demands exploitation for competitive survival because "staying profitable in a competitive environment may force firms to exploit behavioral biases to achieve maximal profitability. Firms abstaining from doing so may be driven out of the market... rais[ing] broader consumer protection concerns that cannot be solved through greater competition.[9]

Thus, the Stigler antitrust group identifies a number of practices that can lock in consumers, raising barriers to entry and reducing competition.

> One way in which digital platforms often exploit their market power – and increase their profit – is by requiring consumers to agree to terms and conditions that are unclear, difficult to understand, and constantly changing, but which give the platform freedom to monetize consumers' personal data.
> Maintain complete control over the user relationship… can be used to reduce the possibility of successful entry by direct competitor. Exclusive contracts, bundling, technical incompatibilities.[10]

We have long passed that critical point when it comes to platforms and applications, where anticompetitive mergers have been followed by exclusionary practices that raise consumer switching costs and increase barriers to entry. The list of abusive practices from the Microsoft

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[8] Stigler, p. 28.
[9] Id., pp. 52-53.
[10] Id., p. 29..

may have seemed unique because it is so long, but it will be familiar to anyone looking at the Apps store issue.[11] Each and every one of these practices is an abuse that can undermine competition and should be prevented.[12]

SUPPLY-SIDE DEFENSES AGAINST THE ABUSE OF MARKET POWER

The long history of communications platforms and the recent history of digital platforms teaches important lessons, as described in Table 2.

Nondiscriminatory interconnection, access to potential consumers, is a necessary condition for competition on the platform, but it is not sufficient.

Nondiscriminatory carriage is another necessary, but insufficient condition.

Combined in the digital age, nondiscriminatory interconnection and carriage equal **open applications interfaces.** Competitors must be shown and allowed to use the application interfaces that enable them to compete for the services they want to deliver to the public on the platform.

[11] Cooper, 2001, p. 816., "Microsoft attacked the fundamentals of antitrust… to present a theory that asked the court to abandon its traditional view of competition and accept the proposition that markets will inevitably be dominated by very few large companies… traditional antitrust rules will achieve exactly the reverse… promote innovation by allowing potential competitors, who would otherwise be quickly eliminated by the giant's anti-competitive behaviors, to have a fair chance to enter the market and eventually discipline the price and quality of ,,, products

[12] Cooper, p. 802, 804: "Practices make it difficult for competitors to design products that operate well as the operating system (platform) is manipulated and changed… Erect barriers to entry.. freeze out competitors with in compatibilities, build in features that impede or disable competing products, withdraw support for competitor programs, lock in consumers with constant imitation … Prevent competitors from getting access to users… foreclose distribution channels… require use of (proprietary) software, while disabling competitors,… conditions to prevent competitors from garnering resources.

TABLE 2:
AREAS TO BE ADDRESSED BY POLICY

Interconnection

(1) Comparably Efficient Interconnection: the principle of providing competitors with access to the broadband network on terms that are technically and economically equivalent to those provided by the broadcast carrier to itself.
(2) A prohibition on preferred agency or exclusive arrangements between vertically-integrated broadband access providers and integrated or affiliated information service providers which contain discriminatory access provision, either in terms of price or quality of access.
(3) Access: the ability to make a physical connection to cable company facilities, at any place where a cable company exchanges consumer data with any Internet service provider, or at any other technically feasible point selected by the requesting Internet service provider, so as to enable consumers to exchange data over such facilities with their chosen Internet service provider .

Pricing

- safeguards in order to prevent instances of anti-competitive behavior… implementation of a cost-based price floor to protect against below-cost pricing of broadband access services;
- implementation of a cost-based price ceiling with a limited mark-up to prevent excessive pricing of access services in uncontested markets;
- implementation of a third-party access tariff, allowing for non-discriminatory and unbundled access to broadband bottleneck facilities, as well as comparably efficient interconnection and associated non-price safeguards;
- implementation of price caps, accounting separations and other safeguards against anti-competitive cross-subsidization;
- imputation of appropriate third-party access tariffs to value added information services providers by broadcast carriers.

Non-price safeguards

- competitors able to gain comparable access to network bottlenecks;
- competitors protected against abuse of confidential information which is provided to the bottleneck access provider;
- competitors not otherwise disadvantaged in the market by the bottleneck access provider through, for example, the negotiation of exclusive or preferential agreements with other service providers.

Bundling

- the bundled service must cover its cost, where the cost for the bundled service includes
- the bottleneck component(s) "costed" at the tariffed rate(s) (including, as applicable, start-up cost recovery and contribution charges);
- competitors are able to offer their own bundled service through the use of stand-alone tariffed bottleneck components in combination with their own competitive elements;
- resale of the bundled service permitted…

Sources: This list of conditions was contained in our recent analysis Mark Cooper and Amina Abdu, 2020, Big Data Platforms, A New Chokepoint in the Digital Communications Sector, Meeting New Challenges with Successful Progressive Principles, Consumer Federation of America, September. It was originally developed in a 2020 paper entitled. Cooper, Mark, 2000b, *Who Do You Trust? AOL And AT&T … When They Challenge the Cable Monopoly or AOL and AT&T. When They Become the Cable Monopoly?* (Consumer Federation of America, Consumers Union and Media Access Project, February 2000), based on AT&T Canada Long Distance Services, "Comments of AT&T Canada Long Distance Services Company," before the Canadian Radio-television and Telecommunications Commission, Telecom Public Notice CRTC 96-36: Regulation of Certain Telecommunications Service Offered by Broadcast Carriers, February 4, 1997. At the federal level, AOL's most explicit analysis of the need for open access can be found in "Comments of America Online, Inc.," In the Matter of Transfer of Control of FCC Licenses of MediaOne Group, Inc. to AT&T Corporation, Federal Communications Commission, CS Docket No. 99-251, August 23, 1999 (hereafter, AOL, FCC). America Online Inc., "Open Access Comments of America Online, Inc.," before the Department of Telecommunications and Information Services, San Francisco, October 27, 1999.

Proprietary applications interfaces are highly suspect, when they have the effect of excluding or gaining unfair advantage over competitors. They should be presumed to be anticompetitive, unless, as described below, the platform operator, who must bear the burden of proof, can show they are both not anticompetitive and enha-nce the consumer experience.

These are all necessary conditions, but even taken together they are not sufficient. Policy must also deal with anticompetitive business practices. These can take many forms, but the policy solution is to insist on **fair, reasonable, and nondiscriminatory rates terms and conditions (FRAND)** offered by dominant incumbents to all potential competitors..

As described in Table 1, the obligation to treat potential competitors in a FRAND manner also applies to a broad range of business practices.

- Pricing
- Non-pricing safeguards and
- Bundling

To the extent that the platforms seek to preserve practices that a competitor finds abusive, the presumption should be shifted against the practice in question.

- They should be considered abusive and eliminated until, and unless, the platforms can show that they are not anticompetitive and uniquely beneficial to consumers. The platform owner should be at grave risk when seeking to make this showing.
    - Should they fail, they should be liable for damages and
    - banned from selling the service for a period long enough to undo the harm to competition.

DEMAND-SIDE RESPONSES

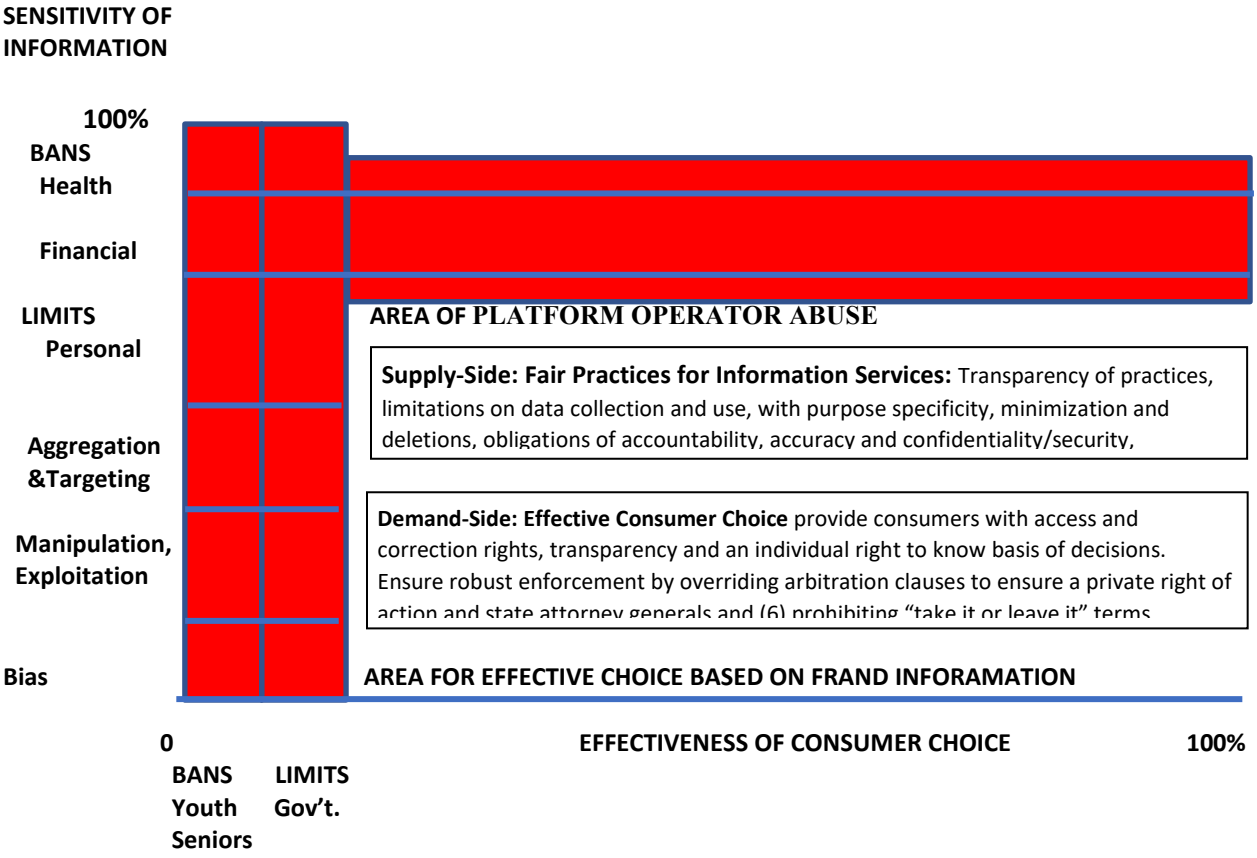
While the above measures are crucial to ensure the supply-side opportunity for competitors to enter the market and constrain the market power of the dominant firms, their ability to do so will be limited if they cannot attract customers. The demand side matters more than ever, in large part because the dominant firms have raised switching costs and locked down consumers. The dominant players take a huge advantage and bias the outcome. They set defaults to favor their products. They advertise and push the consumer advantage of just going along with their choices. They require multiple clicks to make a contrary choice. Some of those clicks are difficult to find or follow.

The ultimate objective is to collect data, which plays a crucial role in causing these markets to tip and allowing the dominant players to continue to reinforce their dominant positions once they have tipped. The dominant platforms collect massive amounts of data and use it as they see fit. The exploitation of consumer data to build and reinforce monopoly power is a key distinguishing feature of these platforms. Any set of remedies that Congress pursues must include powers that allow regulators to understand how the platforms are using consumer data and impose behavioral remedies that erase the platforms' data advantages.

What is the equivalent on the demand-side of an open access regime based on fair, reasonable and nondiscrimination that allows potential competitors the opportunity to sell their output to the public? It is the ability for consumers to freely choose the products that they want. Economists call it consumer sovereignty “Consumer sovereignty is an economic concept where the consumer has some controlling power over goods that are produced, and the idea that the

consumer is the best judge of their own welfare."[13] Consumer sovereignty is just as essential to a competitive regime as producer ability to offer goods to the public, see Figure 1.

FIGURE 1:
CONSUMER/PRIVACY ADVOCATE ISSUES FOR A DATA PROTECTION AGENCY



We need

Opt-in, not opt out, to give consumers effective control of choice

Equal single click for all choices to take the bias out of the process

Provision of neutral information, to avoid influencing consumer unfairly

Clear description of information use, with choices about the nature and level of data collection and use, so that consumers know what they are getting into.

Some limitations of information collection, where the underlying information is too sensitive to allow to circulate

[13] Wikipedia.

Some limitations on target groups, for those who are deemed too vulnerable or unable to exercise sound judgement.

While this is a long list of steps needed to fix the anticompetitive problem in the actions of Big Data Platforms, it is intended to preserve the roles of competition and consumer sovereignty in the digital marketplace, as shown in Figure 1. The groups and types of information that are ruled out of bounds are relatively small compared to the vast majority of consumers and decisions that can be made. The challenge is in designing rules to govern conduct in the area of choice.

The graph identifies real transparency on the supply-side – with the shorthand of Fair Practices for Information Services (FPIS)[14] – are not enough. The demand side requires mechanisms for effective consumer action. Both FPIS and effective choice mechanism must be ongoing, with consumers empowered to decide before information is gathered and to easily change their choice as they see fit.

CONCLUSION

The Stigler group recommendations for antitrust reform concludes that "It is time for antitrust law to recalibrate the balance it strikes between the risks of false positives and false negatives." "Recalibration" may sound like a timid response, but there are a number of ways in which it is profound. In addition to the major changes identified above, the Stigler antitrust group will also let a new regulatory agency handle many issues that would frustrate antitrust. This is the pattern we have pointed out in the New Deal as the launchpad for the Golden Age of Capitalism. Antitrust law was not substantially amended, but enforcement was ramped up dramatically while over a dozen other policies were adopted and new regulatory agencies created.[15]

At the same time, the Stigler group's recommendations reflect a belief in the overall success of the Sherman Act approach and its flexibility to deal with economic changes. They tie this to the link to common law. The Stigler antitrust group notes that the preference for legislation over practical evolution is a close call. The significance of the proposed recalibration can be appreciated from another perspective. As the Stigler antitrust group points out,

> With few exceptions, antitrust law has in the past evolved in a common-law-like process by which it has reflected new learning and judicial and market experience. This process is continuing, at least to some extent, as antitrust law and enforcement have recognized, for example, previously unnoticed competition problems in labor markets and doctrine has evolved to incorporate new learning about competitive problems that can be created by most favored nation (MFN) and other vertical agreements. The challenges posed by the big technology platforms and the current populist political climate have, however, put the issue of antitrust reform before Congress in various legislative proposals. There are advantages and disadvantages to both common law evolution and new legislation.

[14] This is obviously a play on words with respect (FIPS), intended to highlight how much more is needed.

[15] Mark Cooper and Amina Abdu, 2020, *From Brandeis to Stiglitz: Into & Beyond The 2020 Election, The Brandeis Protocol and the Stiglitz Model Create a Framework for Pragmatic, Progressive Capitalism*, September.

Evolution by a common law-like process takes time.[16]

I realize that these recommendations leave many details to be worked out with respect to specific services and applications. But, that is exactly the point. If we want to preserve the dynamic innovation driven by competition on both side of the line between the underlying communications platforms and the complements that ride on those platforms, we need detailed analysis by the antitrust experts. Indeed, we may find that antitrust is not enough to police abuse on a daily basis and regulation is necessary, as it has been for pre-digital communications networks.

In fact, as shown in Table 3, the Stigler groups recognized that a great deal of what was needed to correct the problems in the digital communications platforms had to involve regulation for at least two reasons. First, antitrust tends to be slow and the harm to competition in this sector tends to be fast. Second, antitrust authorities are not well-equipped to implement day-to-day oversight of behavioral remedies and the regulatory functions that have been cobbled together within antitrust institutions are grossly inadequate.

Here I offer the advice that my dissertation advisor gave me almost fifty years ago.

Smart people need to know the right questions, they do not have to know all the right answers. Congress should do what it is good at, which is setting the direction for policy and providing the necessary resources, and avoid what it is not likely to be good at, picking winners and losers. If Congress get the goals, authority and power (including resources right) for the expert agencies, there is a good chance the agencies will get it right. If Congress draws lines in the sand, there is a good chance they will soon be wrong, especially in a dynamic industry that develops quickly.

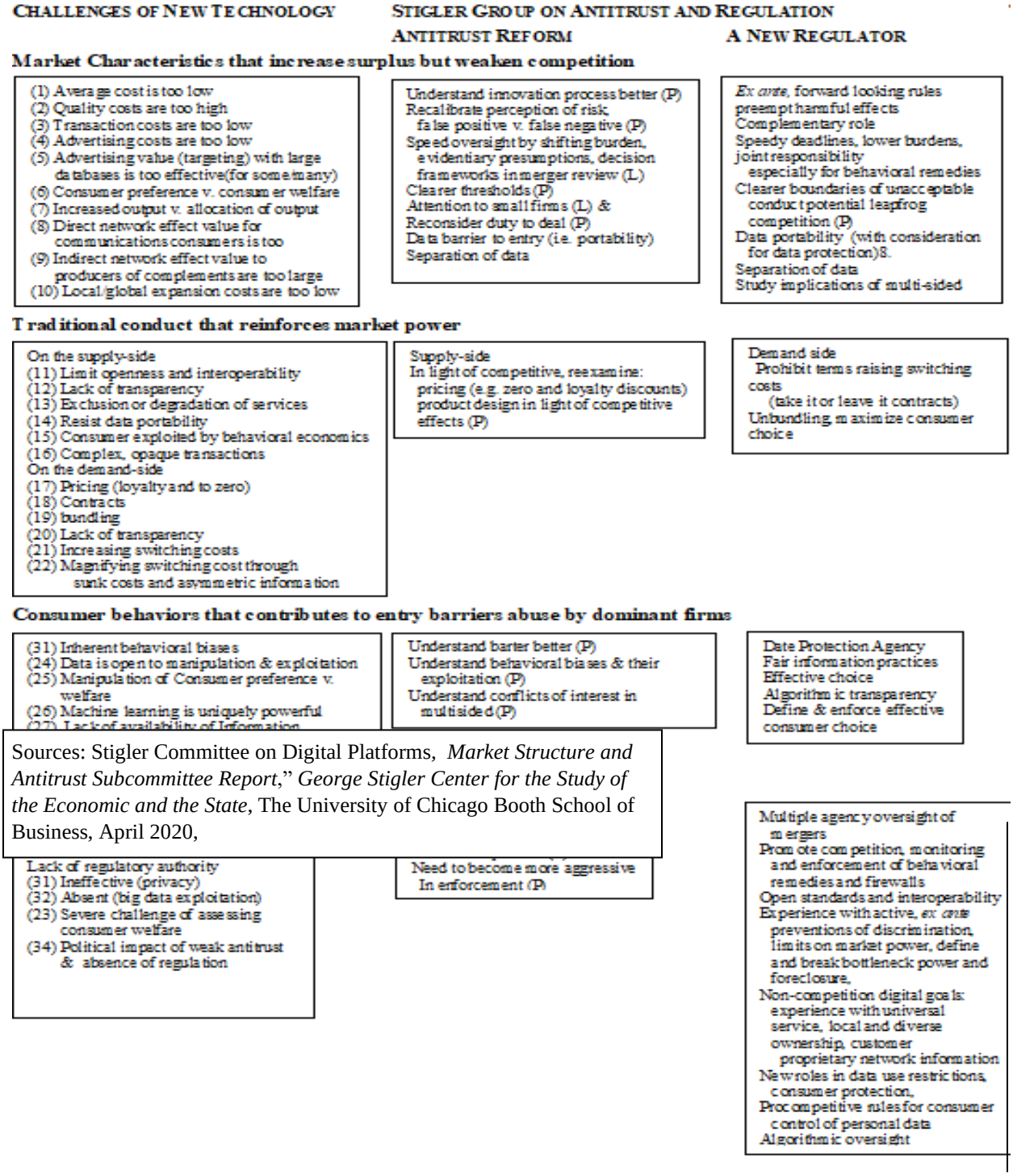
Congress must act to clear away the thicket of mergers and abuse practices that has grown in four decades of lax enforcement. But Congress should not try to pick winners and losers. It should put all of the suspect practices and mergers on the table, clearing away the decades of antitrust malpractice and empowering and demanding antitrust authorities to revisit the structure and conduct of the digital communications space.

The re-examination should be a rapid process, allowed to take no longer than a years and congress will have to ensure that those agencies have the necessary resources to conduct this rapid review. Once the dominant platforms are put on notice, they may realize that they are no longer able to get away with the abuses and quickly alter their behaviors.

TABLE 3:

[16] Stigler, p. 89.

OVERSIGHT OF BIG DATA DIGITAL PLATFORM, ANTITRUST REFORM AND A NEW REGULATORY AGENCY



Sources: Stigler Committee on Digital Platforms, *Market Structure and Antitrust Subcommittee Report*," *George Stigler Center for the Study of the Economic and the State*, The University of Chicago Booth School of Business, April 2020,

Antitrust reform is an obvious first step, but ultimately, Congress must recognize that antitrust alone is not likely to be enough. Regulation of day-to-day practices to limit abuse and rapid response to abuses are also necessary to preserve competition and consumer protection in digital communications.

The Consumer Federation of America has offered a lengthy, historical analysis that places the need for reform of antitrust and development of regulation in the broad context of the successful political economy of the middle of the 20th century offering arguing that we need to update what worked so well and offering a lengthy discussion of the role of antitrust and regulation, published simultaneously with the analysis of Big Data Platforms discussed above. We described the analysis as follows:

> The report dives into the complexity of the current situation and concludes that the policy principles needed today to prevent big data platforms and big broadband networks from strangling and distorting the development of the digital communications sector are the same principles applied to ensure the success of the 2nd Industrial Revolution in America a century ago. The Brandeis-Stiglitz model of pragmatic, progressive capitalism meets the challenge.

- It seeks to construct guardrails and guidance to promote competition and innovation in decentralized markets and orient capitalism in a direction that promotes and furthers the fundamental economic, social and political values of society, while ensuring consumer benefits and providing consumer protection.
    - The process must be pragmatic and flexible to accommodate the dynamic economy, based on analysis of the real-world functioning and impact of each sector, implemented by experts who have not only the skill, but the authority and resources to implement policy to pursue the goals.
    - Political developments should be democratic and participatory, endeavoring to have political development support the evolving economic structure.

> The details must be worked out through antitrust and regulatory practice, but clear statements of goal, reform of processes and identification of the factors to be considered will speed and direct the development of oversight to protect consumers, while preserving the dynamic, digital economy.
>
> - Common law is the basis for Antitrust; it should be the basis for regulation.
> - Clear obligations should be imposed, e.g., a duty to deal (nondiscrimination)
> - Statutory and precedential obstacles to vigorous enforcement by antitrust and regulatory agencies should be removed.
> - Statutory mandates should be avoided, but oversight authorities should be allowed to impose "strict" prohibitions where evidence justifies such actions.
> - As a starting point, utility-like regulation is too restrictive on entrepreneurial activity, while horse and buggy competition misunderstands the nature of the technology and minimum efficient scale .
> - The discussion of regulation also suggests a "new" form of participatory governance, to enhance the involvement of citizens in rulemaking, which is a clear update of Brandeis' support for industrial democracy.[17]

[17] Cooper and Abdu, 2020.