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& ECONOMIC PUBLIC POLICY STUDIES -**

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*Lawrence J. Spiwak, President*

17 August 2018

Federal Trade Commission  
Office of the Secretary  
600 Pennsylvania Avenue, NW  
Suite CC-5610 (Annex C)  
Washington, D.C. 20580

RE: Competition and Consumer Protection in the 21<sup>st</sup> Century Hearings,  
Project Number P181201/Topic Number 2

To Whom it May Concern:

Earlier this year, the Federal Trade Commission announced that it plans to hold a series of hearings on “Consumer Protection and Competition in the 21<sup>st</sup> Century.” In anticipation of these hearings, the Commission has asked the public to provide comment on eleven different topics. The purpose of these specific comments is to contribute to the discussion listed as Topic Number 2: *Competition and Consumer Protection Issues in Communication, Information, and Media Technology Networks*.

In this particular topic area, the Commission has asked the public to provide comment on a wide range of subjects. To keep our comments focused, we would like to highlight three areas of our research which we think will be most helpful to the Commission.

A. *Net Neutrality*

While the root of the net neutrality debate revolves around the proper application of the Communications Act of 1934,<sup>1</sup> with the Federal Communications Commission’s

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<sup>1</sup> See, e.g., G.S. Ford and L.J. Spiwak, *Tariffing Internet Termination: Pricing Implications of Classifying Broadband as a Title II Telecommunications Service*, 67 FEDERAL COMMUNICATIONS LAW JOURNAL 1 (2015) (available at: <http://www.fclj.org/wp-content/uploads/2015/02/Tariffing-Internet-Termination.pdf>); L.J.

*Restoring Internet Freedom Order* the FTC now finds itself with a greater role to play in the Internet ecosystem and, to its credit, is asking the public to provide comment on “whether contemporary industry practices in networked industries continue to present competition and consumer protection concerns like those discussed in the prior reports.” In our view, to answer this question correctly, a proper understanding of the economics of the industry is required.

First, it is important to understand that many of the market transactions the FCC’s net neutrality rules expressly sought to foreclose or severely limit are actually welfare enhancing. As we highlighted in a paper entitled *Network Neutrality and Foreclosing Market Exchange*,<sup>2</sup> under plausible conditions, rules that prohibit efficient commercial transactions between content and broadband service providers could, in fact, be bad for all participants: consumers would pay higher prices, the profits of the broadband service provider would decline, and the sales of Internet content providers would also decline. Moreover, rules that prohibit the market from contracting efficiently may shift sales from content providers to the broadband provider’s content affiliate, a result entirely inconsistent with the stated desire of network neutrality proponents. As our model shows, these unintended consequences of such network neutrality rules are the result of shifting costs to consumers that are more efficiently borne in the exchange between content and broadband providers. While proponents of such regulation may view it as protection from alleged anticompetitive behavior by broadband service providers, such proposals also eliminate the potential for efficient, voluntary, welfare-improving market transactions.

Second, we believe it is important to point out that the FCC’s *2015 Open Internet Rules* actually *increased* the incentive for broadband service providers to engage in exclusionary conduct in the content sector.<sup>3</sup> As we explained in a paper entitled *Sabotaging Content Competition: Do Proposed Net Neutrality Regulations Promote Exclusion?*, firms always have an incentive to take those steps, which increase their profits. The degree of this incentive depends on the additional profits to be gained, less any costs associated with the conduct, which leads to the profit rise. Ironically, the FCC’s *2015 Open Internet Rules*, which were supposed to suppress privately profitable exclusionary conduct, actually had an effect opposite of what was intended. Because the FCC’s net neutrality regulations did not reduce the profits associated with monopolization of content, but only those associated with the participation in a competitive content market, the FCC’s *2015 Rules* encouraged broadband service providers to take steps to reduce the diversity of voices on the Internet to the detriment of the public interest. Demonstration of this result is straightforward and depends, for the most part, on little

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Spiwak, *USTelecom and its Aftermath*, PHOENIX CENTER POLICY BULLETIN NO. 42 (June 2017), *forthcoming* FEDERAL COMMUNICATIONS LAW JOURNAL (2018) (available at: <http://www.phoenix-center.org/PolicyBulletin/PCPB42Final.pdf>).

<sup>2</sup> T.R. Beard, G.S. Ford, T.M. Koutsky and L.J. Spiwak, *Network Neutrality and Foreclosing Market Exchange*, 2 INT. J. MANAGEMENT AND NETWORK ECONOMICS 160 (2009).

<sup>3</sup> G.S. Ford and M. Stern, *Sabotaging Content Competition: Do Proposed Net Neutrality Regulations Promote Exclusion?* PHOENIX CENTER PERSPECTIVE NO. 10-02 (March 4, 2010) (available at: <http://www.phoenix-center.org/perspectives/Perspective10-02Final.pdf>).

more than the axiom that price regulation of a firm with market power does not increase profits.

Finally, we remind the Commission of the basic maxim that firms are not passive recipients of regulation. Thus, if regulation reduces economic profits, then investment—by extension—will correspondingly decline. To demonstrate this point, we are attaching two empirical analysis by Phoenix Center Chief Economist Dr. George S. Ford to demonstrate the investment effects of the FCC's *2015 Open Internet Order*.<sup>4</sup>

In the first paper, Dr. Ford conducts a counterfactual empirical analysis of the effects of Net Neutrality and reclassification on investment in fixed assets. The “counterfactual” is key because whether capital expenditures rise or fall says nothing about the effect of a specific regulatory intervention. Capital expenditures are determined by many factors, of which regulation is only one. Instead, to determine the effect of a specific regulation on investment correctly, a “counterfactual” is required: that is, how much investment would have occurred “but for” the regulatory intervention?

So, applying the difference-in-differences method to a broad measure of investment (thus accounting for the FCC's “virtuous circle” effects), Dr. Ford estimates the investment effects in telecommunications following the introduction of Title II reclassification to the Net Neutrality debate. Using standard econometric methods, Dr. Ford finds sizable investment effects from reclassification. Between 2011 and 2015 (the last year data are available), telecommunications investment differed from expectations by between 20% and 30%, or about \$30 to \$40 billion annually. Actual investment averaged \$126 billion annually, a sizable expenditure, but the counterfactual analysis indicates the average investment over the five-year window would have been about \$160 billion (or more) annually. That is, over the interval 2011 to 2015, another \$150-\$200 billion in additional investment would have been made “but for” Title II

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<sup>4</sup> See G.S. Ford, *Net Neutrality, Reclassification and Investment: A Counterfactual Analysis*, PHOENIX CENTER POLICY PERSPECTIVE NO. 17-02 (April 25, 2017) (available at: <http://www.phoenix-center.org/perspectives/Perspective17-02Final.pdf>); G.S. Ford, *Net Neutrality, Reclassification and Investment: A Further Analysis*, PHOENIX CENTER POLICY PERSPECTIVE NO. 17-03 (May 16, 2017) (available at: <http://www.phoenix-center.org/perspectives/Perspective17-03Final.pdf>). A combination of these two papers will be forthcoming in APPLIED ECONOMICS (available at: <https://www.tandfonline.com/doi/abs/10.1080/00036846.2018.1489115>), which, as far as we know, represents the first peer-reviewed evidence of the investment effects of the *2015 Open Internet Order*. To be fair, however, reclassification of broadband internet access as a Title II common carrier telecommunications service in the *2015 Open Internet Order* was just one of numerous policies deliberately implemented to reduce industry profitability during the Obama Administration. Other policies of this “regulatory revival” included, but certainly were not limited to: imposing an asymmetrical privacy regime on the Internet ecosystem; attempting to force Multichannel Delivered Video Providers to provide third parties access to their programming through set-top box regulation; preempting state municipal broadband laws to facilitate government competition against the private sector (a decision later overturned by the courts); requiring mandatory mobile data roaming, thus relieving any incentive for new entrants to build their own facilities; establishing an unsurmountable hurdle for forbearance from unbundling obligations; and attempting to impose a massive rate cut for Business Data Services (formally known as “special access” services) based on flimsy evidence. See, e.g., G.S. Ford, *“Regulatory Revival” and Employment in Telecommunications*, PHOENIX CENTER POLICY PERSPECTIVE NO. 17-05 (June 12, 2017) and citations therein (available at: <http://www.phoenix-center.org/perspectives/Perspective17-05Final.pdf>).

reclassification. Notably, Dr. Ford finds no decline in investment following the release of the FCC's "Four Principles" to promote an Open Internet in 2005, suggesting it is reclassification—and not Net Neutrality principles—that was reducing investment.

In the second paper, Dr. Ford expands his statistical analysis in response to comments on his earlier paper. In this subsequent work, Dr. Ford restricts his analysis to investments in property and equipment (thereby excluding investment in intellectual property), alters the control group, and evaluates other modifications to the statistical model. His prior results are confirmed in this updated analysis, again finding "that investment in total fixed assets would have been about \$30 billion more annually" and "[i]nvestment in equipment and property would have been \$20 billion more 'but for' reclassification."<sup>5</sup>

#### B. *Standardization and Interoperability*

The Commission also specifically asked about the "welfare effects of regulatory intervention to promote standardization and interoperability." Sadly, there is an excellent example about how ill-formed efforts to promote interoperability can reduce welfare: namely, the Obama Administration's efforts to promote mobile wireless handset interoperability. In the attached 2009 paper entitled *A Policy and Economic Exploration of Wireless Carterfone Regulation*,<sup>6</sup> we warned that breaking the "complementarity" between handsets and wireless service would result in higher handset prices which, in turn, would reduce demand, which, in turn would slow the innovation cycle. Unfortunately, but not unexpectedly, we were proven correct. As FIERCEWIRELESS recently reported:

... carriers continue to push equipment installment plans (EIP) for smartphone purchases rather than through two-year subsidies. Meaning customers are no longer purchasing a free or \$200 smartphone alongside a two-year service contract and then getting a new phone after that two-year contract is over; instead, they're seeing the full price tag for the phone through their EIP fee and are paying that gadget off in monthly installments of \$20 or \$40. Carrier executives have acknowledged how

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<sup>5</sup> It should also be noted that there is a direct relationship between investment and employment. Accordingly, using standard economic techniques and publicly-available data from the Bureau of Labor Statistics, we found that over the period 2010-2016, the telecommunications sector lost approximately 100,000 jobs per year—many of them high-paying union jobs as the result of the FCC's "regulatory revival." This loss is the pay-equivalent of about 130,000 "average" U.S. jobs. See Ford, "Regulatory Revival" and *Employment in Telecommunications*, *supra* n. 4 (and also attached).

<sup>6</sup> G.S. Ford, T.M. Koutsky and L.J. Spiwak, *A Policy and Economic Exploration of Wireless Carterfone Regulation*, 25 SANTA CLARA COMPUTER & HIGH TECH. L.J. 647 (2009) (available at: <http://www.phoenix-center.org/papers/SantaClaraCarterfone.pdf>).

EIPs—alongside the rising cost of handsets—are pushing Americans to hold on to their phones for longer periods of time.<sup>7</sup>

Accordingly, government efforts to mandate “interoperability” must be made with care and only after a thorough vetting of the economics.

C. “Unique” Competition Issues

Finally, the Commission is correct to ask whether there are any “unique” competition issues associated with the Internet ecosystem. In a manner of speaking, there are: If the Commission is going to start overseeing the Internet ecosystem, then it must become an “expert” in competition in markets characterized by high fixed and sunk costs and where industry concentration will always remain high. This expertise will require the Commission to look beyond the traditional Horizontal Merger Guidelines of analysis and to think “outside the box.”

To this end, we are attaching a paper entitled *Competition After Unbundling: Entry, Industry Structure and Convergence*.<sup>8</sup> In this paper, largely drawing on the work of economist John Sutton, we establish a model of equilibrium structure which is a function of the size of the market; the intensity of price competition; and the amount of sunk costs required for entry. All three, to some degree, effect the equilibrium number of firms a market can sustain. For example, with intense price competition (particularly via commoditization of service), the equilibrium falls.<sup>9</sup> Similarly, raise entry costs, market concentration rises. However, if policies can expand the scope of the market, then additional entry may be possible. The lesson to be learned, therefore, is that in markets with large fixed and sunk costs, the simplistic notion that price and concentration are always positively related is invalid. Indeed, falling prices may drive higher concentration.

For this reason, the Commission has to think carefully about how the growing “commoditization” of broadband networks affects industry structure. A few years back, the Phoenix Center authored a paper entitled *Shocks to the Broadband Ecosystem*:

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<sup>7</sup> M. Dano, *As Cellphone Bills Rise, Americans Aren't Buying New Phones*, FIRECEWIRELESS (July 13, 2018) (available at: <https://www.fiercewireless.com/wireless/as-cell-phone-bills-rise-americans-aren-t-buying-new-phones>).

<sup>8</sup> G.S. Ford, T.M. Koutsky and L.J. Spiwak, *Competition After Unbundling: Entry, Industry Structure and Convergence*, 59 FEDERAL COMMUNICATIONS LAW JOURNAL 331 (2007) (available at: <http://www.phoenix-center.org/papers/FCLJCompetitionAfterUnbundling.pdf>).

<sup>9</sup> Ironically, the FCC's 2015 *Open Internet Rules* were specifically designed to commoditize broadband internet access service and minimize firms' ability to product differentiate, thereby robbing economic profits and exacerbating industry concentration. See T.R. Beard, G.S. Ford, T.M. Koutsky, and L.J. Spiwak, *Network Neutrality and Industry Structure*, 29 HASTINGS COMMUNICATIONS AND ENTERTAINMENT LAW JOURNAL 149 (2007) (available at: <http://www.phoenix-center.org/CommEntNetworkNeutrality.pdf>) (also attached hereto).

*Implications for Competition and Market Structure*,<sup>10</sup> where we found that as consumers continue to flock to network-agnostic devices and over-the-top services, they are less wedded to any particular broadband service provider. The problem appears particularly acute for mobile wireless networks where much of the innovation is directed. As a result of this “commoditization” of broadband services, network operators are likely to intensify price competition with each other to the benefit of consumers. However, given the high fixed and sunk costs required to build and operate broadband networks, increasing the intensity of price competition could also result in lower profit margins, thus potentially shrinking the equilibrium number of firms that could profitably serve the market. This possible result is of interest for policymakers because it could mean that in an inter-related broadband ecosystem, prices fall even as markets become more concentrated. These complex responses also suggest that if the ecosystem analogy is appropriate for the broadband marketplace, then public policy must contemplate the full and wide-ranging effects of structural changes across the entire ecosystem, particularly if such changes are driven, in part or whole, by regulatory intervention. A disturbance to one part of an ecosystem, whether of natural or of contrived origins, inevitably flows to other parts of the system and may, in some cases, threaten the overall health and sustainability of the broadband sector. The Commission’s ability to understand, and perhaps quantify, the flow of costs and benefits across the ecosystem is therefore essential to sound policymaking.

We hope you find the attached scholarly material helpful as you organize your upcoming hearings. If we can be of further assistance, please do not hesitate to contact us.

Sincerely,

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Lawrence J. Spiwak

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<sup>10</sup> T.R. Beard, G.S. Ford, L.J. Spiwak, and M. Stern, *Shocks to the Broadband Ecosystem: Implications for Competition and Market Structure*, PHOENIX CENTER POLICY BULLETIN NO. 30 (September 2011) (available at: <http://www.phoenix-center.org/PolicyBulletin/PCPB30Final.pdf>).