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### **An Assessment of the FCC’s Proposal to Conduct a Cost-Benefit Analysis**

by

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#### **I. Introduction and Summary**

In its May 18, 2017, *Restoring Internet Freedom* Notice of Proposed Rulemaking (“NPRM”), the Federal Communications Commission proposed conducting a cost-benefit analysis of its proposed rule.<sup>1</sup> This is a welcome development by the FCC. As this paper explains in considerable detail, the benefits of eliminating the Title II public utility-like regulatory regime adopted by the Commission in 2015 outweigh the costs. Of course, not all of the benefits are easily quantifiable with exactitude. But it is increasingly clear that leaving the 2015 *Open Internet Order*<sup>2</sup> in place results in substantial foregone investment. Indeed, by one Free State Foundation estimate, since 2015 there has been \$5.6 billion in lost investment.<sup>3</sup>

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<sup>1</sup> Federal Communications Commission, “Protecting and Promoting the Open Internet Notice of Proposed Rulemaking,” WC Docket No. 17-108; FCC 17-60 at ¶¶ 105-14, adopted May 18, 2017, available at <https://www.fcc.gov/document/restoring-internet-freedom-notice-proposed-rulemaking>.

<sup>2</sup> Federal Communications Commission, FCC-15-24, In Re Protecting and Promoting the Open Internet (hereinafter *Open Internet Order*), March 12, 2015 at ¶ 20 (footnotes omitted).

<sup>3</sup> Michael J. Horney, “[Broadband Investment Slowed by \\$5.6 Billion Since Open Internet Order](http://freestatefoundation.blogspot.com/2017/05/broadband-investment-slowed-by-56.html)” Free State Foundation Blog (May 5, 2017), available at <http://freestatefoundation.blogspot.com/2017/05/broadband-investment-slowed-by-56.html>.

Importantly, the FCC further proposes as part of the *Restoring Internet Freedom NPRM* to use a multiplier approach to connect the lost investment effects from the *Open Internet Order* to the total economic costs of the 2015 regulation. The investment multiplier approach is used to estimate the additional effects of a policy that are not immediately measurable. An investment multiplier tries to measure the total economic impact of a project, so, for example, it includes the incomes of construction workers, the profits for material suppliers, and other related costs of the project. Existing research suggests that private broadband infrastructure investment should have a significant positive impact on the economy as a whole.

A multiplier above 1.0, and perhaps in the range of 1.25 to 1.75, is likely to be a reasonable and conservative estimate based on current research. Applying this multiplier to the Free State Foundation estimate of a \$5.6 billion reduction in broadband investment over 2015 and 2016 produces an estimate of \$7.0 to \$9.8 billion in lost economic activity attributable to the *Open Internet Order*, with a midrange estimated economic impact of negative \$8.4 billion. If the current investment trend were to continue, the negative economic impact resulting from the *Open Internet Order* regulatory regime will only become greater over time.

This *Perspectives* reviews the FCC's proposal for conducting this cost-benefit analysis as part of its review of the proposed *Restoring Internet Freedom* rules. It discusses the key principles that should guide the FCC's cost-benefit analysis in order to help the agency establish the strongest possible process as precedent for cost-benefit analyses of future proposed rules. This *Perspectives* also identifies the key factors that should be considered as part of the specific analysis for the NPRM, following the organization used by the FCC in paragraphs 105 to 114 of the *Restoring Internet Freedom NPRM*.

Regulatory agencies that are part of the executive branch have been required to conduct cost-benefit analyses for decades to help them understand the consequences of the regulatory actions they are considering. As an independent agency, the FCC is currently not required to conduct a cost-benefit analysis as part of its rulemaking process. Other independent agencies, however, including the Federal Trade Commission and the Securities and Exchange Commission, have instituted their own internal requirements for conducting some form of cost-benefit analysis. The FCC should follow their example.

Cost-benefit analysis methods used by other agencies are strongly supported by economists who have served in both Democratic and Republican administrations and would help the FCC evaluate the numerous comments it receives when considering regulatory proposals. By following the well-established practices of other regulatory agencies, the FCC can take an important step in avoiding becoming known as an "economic-free zone."<sup>4</sup>

The FCC should be commended for seeking to better integrate economic analysis into its decisionmaking. In addition to proposing to conduct this cost-benefit analysis, Chairman Ajit Pai recently announced that the FCC is creating an Office of Economics and Data with the directive of "providing economic analysis for rulemakings, transactions, and auctions; managing the Commission's data resources; and conducting longer-term research on ways to improve the

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<sup>4</sup> See Tim Brennan, "Is the Open Internet Order an "Economics-Free Zone?" Free State Foundation, June 28, 2016, available at [http://www.freestatefoundation.org/images/Is\\_the\\_Open\\_Internet\\_Order\\_an\\_Economics\\_Free\\_Zone\\_062816.pdf](http://www.freestatefoundation.org/images/Is_the_Open_Internet_Order_an_Economics_Free_Zone_062816.pdf).

Commission’s policies.”<sup>5</sup> Only if agency regulations are based on sound economic analysis can decision-makers have a clear understanding of whether the benefits of their regulatory actions outweigh the costs. Cost-benefit analysis also allows regulators to better understand the consequences of various policy proposals.

President Clinton’s Executive Order 12866, which has been followed by every administration since 1993, requires that executive branch agencies conduct cost-benefit analyses for all “economically significant” regulations, or regulations having an annual economic effect of at least \$100 million on the economy.<sup>6</sup> The FCC proposes that it be guided by Section E of OMB Circular A-4 in its cost-benefit analysis, which is the guidance used by executive branch agencies in three administrations dating back to 2003. The FCC should only deviate from these standards if it has very compelling reasons for doing so. Most likely the standards from OMB Circular A-4 will be entirely appropriate for all issues the FCC must consider in this cost-benefit analysis.

The FCC proposes to start its cost-benefit analysis by defining the baseline, or multiple baselines, against which the proposed regulation should be compared. Such a comparison is necessary so that the impact of the regulation can be measured as the change from the baseline to the regulated scenario. In effect, the FCC is proposing to conduct a cost-benefit analysis of the 2015 *Open Internet Order*, as implemented. This approach has the advantage of being able to draw upon the experience and data from the regulation in place before 2015. This baseline can also be used for separate cost-benefit analyses if it is assumed that different components of the 2015 *Open Internet Order* are retained, including maintaining the Internet conduct rule, the no-blocking rule, the no-throttling rule, the ban on paid prioritization, and the transparency rule.

One of the challenges in cost-benefit analysis is accounting for uncertainty. Other federal agencies, however, including the Environmental Protection Agency and the SEC, have been able to address uncertainty successfully in their cost-benefit analyses. The FCC could request guidance from the Office of Information and Regulatory Affairs, which reviews the economic analyses of executive agencies that deal with uncertainty.

The FCC should keep in mind that the most challenging uncertainty issues it must address in its cost-benefit analysis will be on the side of the current *Open Internet Order* regulation. The FCC has a good idea of what the pre-2015 baseline is like, based on years of experience with regulation that was much more “light touch” than the public utility regulation adopted in 2015. In contrast, the FCC majority’s justifications for the *Open Internet Order* were largely based on speculative harms that have not occurred. And it is difficult to anticipate whether any of the harms predicted by the 2015 FCC majority ever would have occurred.

In any event, considerable evidence already is emerging that the *Open Internet Order* is having a depressing effect on broadband capital investment. In a recent address, FCC Chairman Pai cited Free State Foundation research by Research Associate Michael Horney estimating that the 2015

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<sup>5</sup> Ajit Pai, “Remarks of Federal Communications Commission Chairman Ajit Pai at the Hudson Institute: The Importance of Economic Analysis at the FCC,” (speech, Washington, DC, April 5, 2017), available at [https://apps.fcc.gov/edocs\\_public/attachmatch/DOC-344248A1.pdf](https://apps.fcc.gov/edocs_public/attachmatch/DOC-344248A1.pdf). As discussed below, Horney revised his estimate to \$5.6 billion in lost investment using the same methodology after additional data became available.

<sup>6</sup> Executive Order no. 12,866, Federal Register 58, no. 190 (October 3, 1993).

*Open Internet Order* "has already cost our country \$5.1 billion in broadband capital investment."<sup>7</sup> Other scholars have estimated declines in broadband investment that are similar or greater, depending on the methodology and baselines they used. These reports, as well as the data sources they rely upon, should provide a strong basis for estimating the investment impact of the *Open Internet Order* relative to the baseline. While some studies have found that broadband capital investment increased since 2015, they do so by mischaracterizing large non-broadband investments. When those non-broadband investments are removed, the most prominent study claiming to show an increase in broadband investment actually shows the opposite.

The FCC also is interested in how the *Open Internet Order* may be affecting local governments. The costs in these areas are potentially very high and should be considered in the cost-benefits analysis. Evidence is emerging that FCC regulatory policies during the Obama administration, including the 2015 net neutrality mandates, had a large negative effect on employment. Local governments are also affected, as they consider risky municipal broadband projects in areas that are not well served by depressed private broadband investment.

Federal, state, and local governmental units in the future may want Amber alerts, severe weather alerts, and Homeland Security warnings given priority over other Internet traffic. As emergency services evolve, governments may want to have some form of prioritization available as an option for these and other highly time-sensitive functions. The FCC should include some costs in its analysis reflecting how enhancement in these types of government functions may be delayed by the restrictions in the *Open Internet Order*.

Perhaps the most significant cost imposed by the *Open Internet Order* is the way the ban on paid prioritization is impeding the development of new business models or new product and services that would otherwise deliver value to society. Some specialized services for dedicated users require a high level of end-to-end reliability, which may not be available under the current ban on paid prioritization. Autonomous vehicles, interactive elearning, and telemedicine are examples of applications in their early stages of development that require access to fast and stable Internet connections. Investors may be unwilling to take the risk of investing in these applications if they cannot be assured of reliable prioritized broadband connections. The economic benefits from these new services are very large, and must be considered in any cost-benefit analysis.

Moreover, the rigid ban on paid prioritization ignores the benefits that are typically achieved in other markets from allowing vertical arrangements to develop as suppliers, distributors, and customers experiment in the market to find the arrangements that provide the greatest benefits.<sup>8</sup> So long as markets are reasonably competitive, or are moving toward becoming competitive, arrangements that try to take advantage of other parties will not survive for long, because the parties at a disadvantage can find alternative arrangements.

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<sup>7</sup> Ajit Pai, "Remarks of Federal Communications Commission Chairman Ajit Pai at the Newseum: The Future of Internet Freedom," (speech, Washington, DC, April 26, 2017), available at [http://transition.fcc.gov/Daily\\_Releases/Daily\\_Business/2017/db0426/DOC-344590A1.pdf](http://transition.fcc.gov/Daily_Releases/Daily_Business/2017/db0426/DOC-344590A1.pdf).

<sup>8</sup> See Theodore Bolema, "Allow Paid Prioritization on the Internet for More, Not Less, Capital Investment," Free State Foundation (May 1, 2017), available at [http://www.freestatefoundation.org/images/Allow\\_Paid\\_Prioritization\\_on\\_the\\_Internet\\_for\\_More,\\_Not\\_Less,\\_Capital\\_Investment\\_050117.pdf](http://www.freestatefoundation.org/images/Allow_Paid_Prioritization_on_the_Internet_for_More,_Not_Less,_Capital_Investment_050117.pdf).

Significantly, the *Open Internet Order* regulations can only pass a cost-benefit test if they are addressing a clear market failure than can only be resolved by the FCC regulation. If there is no market failure or other systemic problem, then government action will likely do more harm than good. The FCC justified the 2015 *Open Internet Order* in large part on conjectured harms that might occur in the future, but had not occurred to date under regulatory oversight that was considerably less heavy-handed. Then-Commissioner Pai pointed out the lack of evidence of anticompetitive harm in his 2015 dissent to the *Open Internet Order*.<sup>9</sup>

Unless the FCC can identify more systematic evidence of harm from market failures that could only be corrected by FCC mandates, it is difficult, if not impossible, to see how the FCC can conclude that the *Open Internet Order* regulation achieves any net benefits relative to the baseline. Thus, even any seemingly benign provisions in the *Open Internet Order*, like the bans on blocking and throttling that may not attract any strong objections from Internet service providers, will at best achieve no net benefits that are outweighed by the compliance costs.

Given the remarkable record of innovation, investment, and choice of new services offered to customers before the *Open Internet Order* regulation was imposed, it is highly unlikely that any such market failure can be found. If the FCC does identify a market failure, perhaps based on market power for some parties in some places at some times, then it must also consider whether less intrusive alternative approaches are sufficient to address the market failure before resorting to public utility regulation of a broadband market segment. These alternative approaches include increased antitrust enforcement, new consumer protection regulations, or minimum quality standards.

## **II. The Importance of Cost-Benefit Analysis by Regulatory Agencies**

The FCC's reasoning for seeking a cost-benefit analysis is stated in paragraph 105 of the *Restoring Internet Freedom NPRM*:

We propose as part of this proceeding to conduct a cost-benefit analysis (CBA). We propose to compare the costs and the benefits of maintaining the classification of broadband Internet access service as a telecommunications service (i.e. Title II regulation); maintaining the Internet conduct rule; maintaining the no-blocking rule; maintaining the no-throttling rule; maintaining the ban on paid prioritization; maintaining the transparency rules; and acting on the other interpretive and policy changes for which we seek comment above. We seek comment on how the CBA should be conducted to appropriately separate or combine the analyses of each piece discussed above. We also seek comment generally on the importance of conducting a CBA as well as the interaction between the Commission's public interest standard and a weighing of the costs and benefits. (footnote omitted.)

The cost of federal regulations in the United States is very high. A recent comprehensive study of the economic burden of U.S. regulation found that if federal regulations had been held constant at levels observed in 1980, the U.S. economy would have been about 25 percent larger

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<sup>9</sup> Dissenting Statement of Commissioner Ajit Pai, *Open Internet Order*.

than it was in 2012. The difference is approximately \$4 trillion in lost economic activity, or approximately \$13,000 per person.<sup>10</sup>

Economic regulations that are properly designed and narrowly tailored to address a specific market failure can serve a public interest purpose. Economic analysis shows that properly tailored regulation can help establish property rights, address spillover effects that may harm other parties, and create standards that producers can find useful. But regulation can also protect entrenched interests from competition, discourage innovation, and cause more harm than good as it loses its effectiveness by becoming outdated. As Supreme Court Justice Stephen Breyer noted, “well-meaning, intelligent regulators, trying to carry out their regulatory tasks sensibly, can nonetheless bring about counterproductive results.”<sup>11</sup> Cost-benefit analysis, if properly formulated and executed, can be used to identify opportunities for reducing this regulatory burden without decreasing the net benefits from regulations.

Requiring regulators to conduct cost-benefit analyses has a long history of bipartisan support. Every President since Jimmy Carter has required executive branch regulatory agencies to conduct cost-benefit analyses of certain proposed regulations. President Carter also signed the legislation that created the Office of Information and Regulatory Affairs (OIRA) which is part of the Office of Management and Budget. OIRA oversees the regulatory analysis by executive branch agencies and can delay regulations if it finds those analyses inadequate. Cass Sunstein, appointed at the beginning of the Obama administration to head OIRA, strongly advocated for review of federal regulations using cost-benefit analysis, which was reflected in a series of executive orders by President Obama eliminating regulations OIRA found to be inefficient.<sup>12</sup> Moreover, President Obama’s Executive Order 13579 encourages independent agencies to conduct retrospective review of their existing regulations.<sup>13</sup>

President Clinton’s Executive Order 12866, which has been followed by every administration since 1993, requires that executive branch agencies conduct cost-benefit analyses for all “economically significant” regulations. Economically significant regulations are defined as those having an annual economic effect of at least \$100 million on the economy.<sup>14</sup> This executive order “expresses the philosophy that regulations should (1) address a ‘compelling public need, such as material failures of private markets’; (2) be based on an assessment of ‘all costs and benefits of available regulatory alternatives, including the alternative of not regulating’; and (3) ‘maximize net benefits’ to society unless otherwise constrained by law.”<sup>15</sup>

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<sup>10</sup> Bentley Coffey, Patrick A. McLaughlin, and Pietro Peretto. “The Cumulative Cost of Regulations.” Mercatus Working Paper, Mercatus Center at George Mason University (April 2016), at 7, available at <https://www.mercatus.org/system/files/Coffey-Cumulative-Cost-Regs-v3.pdf>. These authors survey other scholarly research that also found large costs due to regulatory accumulation.

<sup>11</sup> Stephen Breyer, *Breaking the Vicious Circle: Toward Effective Risk Regulation*, Harvard University Press (1995), as quoted in Susan E. Dudley and Jerry Brito, *Regulation: A Primer*, 2nd ed., Mercatus Center at George Mason University and George Washington University Regulatory Studies Center (2012), at 61.

<sup>12</sup> Michael B. Rappaport, “Using Delegation to Promote Deregulation,” *Regulation*, Winter, 2015-2016, at 26-30, available at <https://object.cato.org/sites/cato.org/files/serials/files/regulation/2015/12/regulation-v38n4-5.pdf>.

<sup>13</sup> Executive Order no. 13,579, Federal Register 76, no. 14 (January 21, 2011).

<sup>14</sup> Executive Order no. 12,866, Federal Register 58, no. 190 (October 3, 1993).

<sup>15</sup> Susan E. Dudley and Jerry Brito. *Regulation: A Primer*, 2nd ed., Mercatus Center at George Mason University and George Washington University Regulatory Studies Center (2012), at 41.

While the *Restoring Internet Freedom* NPRM proposal would be considered economically significant by this definition,<sup>16</sup> it is not subject to Executive Order 12866, which has not been extended to independent federal regulatory agencies like the FCC.<sup>17</sup> Independent agencies are not required to perform regulatory analysis or submit regulations to OMB for review, but many of them, including the FTC and SEC, have adopted their own internal requirements that are similar to the requirements for executive branch agencies.

The FCC should be commended for seeking to better integrate economic analysis into its decisionmaking. In addition to proposing to conduct this cost-benefit analysis, Chairman Pai recently announced that the FCC is creating an Office of Economics and Data with the directive of “providing economic analysis for rulemakings, transactions, and auctions; managing the Commission’s data resources; and conducting longer-term research on ways to improve the Commission’s policies.”<sup>18</sup> Only if agency regulations are based on sound economic analysis can decision-makers have a clear understanding of whether the benefits of their regulatory actions outweigh the costs. Cost-benefit analysis also allows regulators to better understand what is likely to happen as a result of various policy proposals.

The FCC’s public interest standard is very broad, even indeterminate. Such a broad standard can be interpreted in many ways, but it certainly doesn’t preclude cost-benefit analysis. Indeed, in today’s increasingly competitive, technologically dynamic communications marketplace environment, it is more likely than not that reasoned decisionmaking requires the analytical discipline that proper cost-benefit analysis calls forth to inform any decisions purporting to rest on the agency’s public interest authority.

### **III. The FCC Should Follow the Guidance in OMB Circular A-4**

The *Restoring Internet Freedom* NPRM proposes to follow the guidelines in Section E of OMB Circular A-4,<sup>19</sup> which specify the methodology that executive branch agencies are to follow. Paragraph 106 of the NPRM states:

In conducting the CBA, we propose to follow standard practices employed by the federal government. Specifically, we propose to follow the guidelines in Section E (“Identifying and Measuring Benefits and Costs”) of the Office of Management and Budget’s Circular A-4.230 This publication provides guidelines which an agency can follow for identifying

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<sup>16</sup>U.S. e-commerce retail sales alone in 2016 were approximately \$390 billion in 2016. U.S. Census Bureau, “Quarterly E-commerce Retail Sales,” May 16, 2017, available at <file:///F:/Free%20State%20Foundation/CBA%20research/DOC.retail%20ecommerce%20sales%202016.pdf>. Moreover, several studies discussed below show that the impact of the 2015 *Open Internet Order* on capital investment has far exceeded this threshold.

<sup>17</sup> Former White House Counsel C. Boyden Gray argues that the President has to power to extend the same requirements for regulatory review to independent agencies like the FCC. C. Boyden Gray, “The President’s Constitutional Power to Order Cost-Benefit Analysis and Centralized Review of Independent Agency Rulemaking,” Mercatus Working Paper, Mercatus Center at George Mason University (May 31, 2017), available at <https://www.mercatus.org/system/files/mercatus-gray-executive-power-independent-agencies-v1.pdf>.

<sup>18</sup> Ajit Pai, “Remarks of Federal Communications Commission Chairman Ajit Pai at the Hudson Institute: The Importance of Economic Analysis at the FCC,” (speech, Washington, DC, April 5, 2017), available at [https://apps.fcc.gov/edocs\\_public/attachmatch/DOC-344248A1.pdf](https://apps.fcc.gov/edocs_public/attachmatch/DOC-344248A1.pdf).

<sup>19</sup> Office of Management and Budget, “OMB Circular No. A-4: Regulatory Analysis” (September 3, 2003), available at [https://obamawhitehouse.archives.gov/omb/memoranda\\_m03-21/](https://obamawhitehouse.archives.gov/omb/memoranda_m03-21/).

and quantifying costs and benefits associated with regulatory decisions while allowing for appropriate latitude in how the analysis is conducted for a particular regulatory situation. We seek comment on following Circular A-A generally. We also seek comment on any specific portions of Circular A-4 where the Commission should diverge from the guidance provided. Commenters should explain why particular guidance in Circular A-4 should not be followed in this circumstance and should propose alternatives.

The FCC's proposal to follow Section E of OMB Circular A-4 is appropriate. The guidance in Circular A-4 has been used by three administrations now dating back to 2003. Before it was implemented, the guidance in Circular A-4 was reviewed by an impressive bipartisan panel of experts, including Cass Sunstein (Obama administration) and W. Kip Viscusi (Carter and Reagan administrations). The FCC should only deviate from these standards if it has very compelling reasons for doing so. Most likely the standards from OMB Circular A-4 will be appropriate for all issues the FCC must consider in any cost-benefit analysis.

Going forward, the FCC should be guided by the recent precedent at another independent regulatory agency, the SEC. Several federal court decisions remanded regulations to the SEC between 2005 and 2011 as arbitrary and capricious based on inadequate economic analysis prior to the adoption. In response, the SEC adopted a 2012 Memorandum stating how the agency will incorporate cost-benefit analysis in its regulatory reviews.<sup>20</sup> This current SEC guidance is largely based on OMB Circular A-4. Jerry Ellig, Senior Fellow for the Mercatus Center at George Mason University, assessed the improvements in SEC regulatory analysis after the 2012 guidance was adopted.<sup>21</sup> While Ellig found some areas where the SEC still fell short, he concluded that the improvements in the SEC's economic analysis were encouraging:

In a relatively short period of time, the SEC issued new guidance for economic analysis, reorganized internally to give economists a greater voice in rulemaking, and produced a measurable improvement in the quality of economic analysis accompanying its regulations. Conceptual economic reasoning, use of relevant economic literature, and quantification all improved.<sup>22</sup>

The FTC has also instituted cost-benefit analysis as part of its internal processes. Former FTC Commissioner Julie Brill, a Democrat, described the FTC's use of cost-benefit analysis last year as follows:

As an independent agency, the FTC is not bound by the requirements of cost-benefit analysis that apply to agencies that are part of the president's administration. But the FTC conducts its rulemakings with the same level of attention to costs and benefits that is required of other agencies. We build extensive records from public workshops and formal

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<sup>20</sup> SEC Division of Risk, Strategy, and Financial Innovation and SEC Office of the General Counsel, "Current Guidance on Economic Analysis in SEC Rulemakings (March 16, 2012), available at [https://www.sec.gov/divisions/riskfin/rsfi\\_guidance\\_econ\\_analy\\_secrulemaking.pdf](https://www.sec.gov/divisions/riskfin/rsfi_guidance_econ_analy_secrulemaking.pdf).

<sup>21</sup> Jerry Ellig was recently named Chief Economist at the FCC. Federal Communications Commission, "Chairman Pai Appoints Ellig Chief Economist (news release, July 5, 2017, available at [http://transition.fcc.gov/Daily\\_Releases/Daily\\_Business/2017/db0705/DOC-345657A1.pdf](http://transition.fcc.gov/Daily_Releases/Daily_Business/2017/db0705/DOC-345657A1.pdf).

<sup>22</sup> Jerry Ellig, "Improvements in SEC Economic Analysis since Business Roundtable: A Structured Assessment." Mercatus Working Paper, Mercatus Center at George Mason University (December 2016), available at <https://www.mercatus.org/system/files/mercatus-ellig-sec-business-roundtable-v1.pdf>.

written comments from the public to inform these assessments. And we review all regulations at least every ten years to determine whether any changes are warranted or whether they are still needed at all.<sup>23</sup>

Following the examples of the SEC and FTC, the FCC should adopt its own internal requirements for using cost-benefit analysis, which could be modeled on the SEC's 2012 Memorandum.

#### **IV. Defining the Cost-Benefit Analysis Baseline**

A critical early step in any cost-benefit analysis is defining the baseline, or multiple baselines, against which the proposed regulation should be compared. Such a comparison is necessary so that the impact of the regulation can be measured as the change from the baseline to the proposed regulated scenario. Paragraph 107 of the NPRM states:

Any CBA should be conducted by comparing the costs and benefits relative to the “baseline” scenario. As OMB Circular A-4 explains, “[t]his baseline should be the best assessment of the way the world would look absent the proposed action.” Care should be taken to recognize that in certain cases repealing or eliminating a rule does not result in a total lack of regulation but instead means that other regulations continue to operate or other regulatory bodies will have authority. For example, as we evaluate the costs and benefits of maintaining the current classification of broadband Internet access service as a telecommunications service, the CBA should recognize that changing the classification of broadband Internet access service to an information service would result in the FTC having jurisdiction over certain aspects of such services. Therefore, the benefits and costs of the FCC maintaining Title II jurisdiction over broadband Internet access service should be calculated with FTC enforcement as the appropriate baseline. In this example, the benefits of maintaining the Commission's Title II classification are those benefits that exist over and above the “baseline” scenario of FTC jurisdiction (and FCC Title I protections). Likewise, the costs of maintaining Title II should be estimated as those costs of ex ante FCC regulation relative to FTC ex post regulation. We seek comment on the appropriate baseline scenarios that should be used and on our proposed course of action above.

The FCC appears to be proposing to conduct a cost-benefit analysis of the 2015 *Open Internet Order*, as implemented, rather than an analysis of the *Restoring Internet Freedom* NPRM. That is consistent with the FCC's language in paragraph 107 that “the costs of maintaining Title II should be estimated as those costs of ex ante FCC regulation relative to FTC ex post regulation,” which indicates that the FCC's baseline or baselines will be based on the previous “lighter touch” regulation that existed before the 2015 *Open Internet Order*.

In this case, the Commission's approach probably makes sense because, for the most part, the agency is proposing to return to the regulatory regime in place before the adoption of the 2015

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<sup>23</sup> Julie Brill, “Safe – and, or, versus – Sorry: How the Federal Trade Commission Approaches Consumer Protection: Keynote before the TACD 16th Annual Forum – The Precautionary Principle in TTIP: Trade Barrier or Essential for Consumer Protection? (speech, January 26, 2016) (footnote omitted), available at [https://www.ftc.gov/system/files/documents/public\\_statements/913213/160126tacdkeynote.pdf](https://www.ftc.gov/system/files/documents/public_statements/913213/160126tacdkeynote.pdf).

order that imposed public utility-type regulation. So, this approach has the advantage of being able to draw upon the experience and data from the lighter touch regulation era before 2015. This baseline can also be used for separate cost-benefit analyses of keeping different components of the *Open Internet Order*, including maintaining the general conduct rule, the no-blocking rule, the no-throttling rule, the ban on paid prioritization, and the transparency rule.

To the extent the FCC is considering undoing the 2015 *Open Internet Order* and returning to the pre-2015 regulatory structure, then a cost-benefit analysis of the *Open Internet Order* is simply the mirror image of a cost-benefit analysis of the proposed regulation. If, however, the FCC is considering keeping parts of the *Open Internet Order* or not going back to the pre-2015 regulation in some other way, then the analysis will become more complicated, and using the pre-2015 regulatory environment as the baseline becomes less appropriate.

The remainder of this analysis presumes the FCC is proposing to return to the same regulation as before 2015 as the baseline. This would include returning to the antitrust, consumer protection, and any other regulatory policies that were in place before 2015.

## **V. Evaluating Uncertainty**

The FCC models its request for guidance on how to evaluate uncertainty by tracking the language in OMB Circular A-4, which is appropriate for framing the uncertainty issue. Paragraph 108 of the NPRM states:

In weighing the costs and benefits of any policy, there always exists an element of uncertainty. As commenters suggest costs and benefits the Commission should consider, we ask that to the extent possible information could also be provided about the level of certainty surrounding a scenario or particular value. Also, various costs and benefits are likely to occur at different points in time. When suggesting costs and benefits, we seek comment on the timing of those costs and benefits. We also seek comment on how uncertainty around and timing of costs and benefits should interact in the analysis. (footnote omitted.)

One of the challenges in cost-benefit analysis is accounting for uncertainty. Other federal agencies, however, including the Environmental Protection Agency and the SEC, have been able to address uncertainty successfully in their cost-benefit analyses.

A new article by Richard L. Revesz, Director of the American Law Institute and Dean Emeritus at the New York University School of Law, strongly advocates for independent agencies relying on cost-benefit analysis, and he concludes that the available methods already used by other federal agencies are up to the task. He writes:

This Article has shown the deep shortcomings of independent agencies in general, and of the financial regulatory agencies in particular, with respect to the preparation of cost-benefit analyses in rulemaking. As a result of these shortcomings, many significant rules have fared poorly in the courts, giving rise to a defeatist debate [that] has ensued on whether such cost-benefit analysis is even possible.

This debate detracts attention from the important institutional issue at stake: given that the requirement that the financial regulatory agencies justify some of their rules in cost-benefit terms is here to stay, and likely to become even more prevalent, what institutional structures are best able to perform this task? And, fortunately, there are good models within the Executive Branch to guide this inquiry, particularly with respect to environmental regulation. The path will undoubtedly be a difficult one, but the direction is clear. The institutions and practices that have served us well in one area are available to the other. We just need to embrace the lessons that we have learned over the past several decades.<sup>24</sup>

It should be noted that the *Open Internet Order* is contributing to much of the uncertainty in the market today. Free State Foundation Senior Fellow Seth Cooper documents the ways the catch-all” general conduct standard is vague and creates difficulties for firms seeking to comply.<sup>25</sup> One example is how the FCC used the general conduct standard to inject uncertainty into the market by investigating zero-rating plans by wireless carriers that were intended to subsidize Internet access for low-income Americans. FCC Commissioner Michael O’Rielly criticized the vague Internet general conduct standard as having “changed investment decisions and rollout of products based on the rules.”<sup>26</sup>

## VI. Costs and Broadband Capital Investment

Economic theory supports the FCC’s presumption that maintaining the *Open Internet Order* will depress investment relative to the baseline discussed in the previous section.<sup>27</sup> The FCC is correct to focus much of its cost analysis on how broadband capital investment is being adversely affected. Paragraph 109 of the NPRM states:

Costs. There is evidence that the actions taken by the Commission in the Title II Order have reduced investments by ISPs. We presume that maintaining those actions would depress investment relative to the baseline. Many of the costs of lower or misallocated investment in networks and in other sectors of the digital economy will be due to consumers and businesses having less broadband Internet access service coverage and lower quality of service. Since the networks built with capital investments are only a means to an end, we believe that the private costs borne by consumers and businesses of maintaining the status quo result from decreased value derived from using the networks. We seek comment on this analysis. What approaches should we use to capture these costs? We seek comments on particular methods and data sources we might use to

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<sup>24</sup> Richard L. Revesz, “*Cost-Benefit Analysis and the Structure of the Administrative State: The Case of Financial Services Regulation*,” 34 Yale J. Reg. (forthcoming 2017).

<sup>25</sup> Seth L. Cooper, “FCC’s Vague ‘General Conduct’ Standard Deserves Closer Legal Scrutiny,” Free State Foundation (July 6, 2016) available at [http://www.freestatefoundation.org/images/FCC\\_s\\_Vague\\_General\\_Conduct\\_Standard\\_Deserves\\_Closer\\_Legal\\_Scrutiny\\_070616.pdf](http://www.freestatefoundation.org/images/FCC_s_Vague_General_Conduct_Standard_Deserves_Closer_Legal_Scrutiny_070616.pdf).

<sup>26</sup> See John Eggleton, “O’Rielly Slams FCC’s General Conduct Standard,” *Broadcasting Cable* (May 06, 2016), available at <http://www.broadcastingcable.com/news/washington/orielly-slams-fccs-general-conduct-standard/156256>.

<sup>27</sup> See, e.g., Theodore Bolema, “Allow Paid Prioritization on the Internet for More, Not Less, Capital Investment” Free State Foundation (May 1, 2017), available at [http://www.freestatefoundation.org/images/Allow\\_Paid\\_Prioritization\\_on\\_the\\_Internet\\_for\\_More,\\_Not\\_Less,\\_Capital\\_Investment\\_050117.pdf](http://www.freestatefoundation.org/images/Allow_Paid_Prioritization_on_the_Internet_for_More,_Not_Less,_Capital_Investment_050117.pdf).

estimate the private costs of forgoing the building, maintaining, or upgrading of these networks. (footnote omitted)

Evidence is emerging that the 2015 *Open Internet Order* is having that depressing effect on broadband capital investment. In a recent address, FCC Chairman Ajit Pai cited Free State Foundation research by Research Associate Michael Horney estimating that the *Open Internet Order* "has already cost our country \$5.1 billion in broadband capital investment."<sup>28</sup> Horney used as his baseline a trend line generated from actual capital investment from 2003 to 2014. When new data for actual investment in 2015 became available, Horney revised his estimate using the same methodology to project a decrease of \$5.6 billion in broadband investment over 2015 and 2016.<sup>29</sup> Horney's estimate is similar to the estimate by Hal Singer, Senior Fellow at the Progressive Policy Institute, who finds a drop in broadband investment of \$3.6 billion in 2016 alone, or 5.6%, relative to a baseline of 2014 investment.<sup>30</sup>

George Ford of the Phoenix Center for Advanced Legal and Economic Public Policy Studies traces the lost investment back to December of 2010, when then-Chairman Julius Genachowski proposed Internet regulations that, in effect, imposed Title II-like common carrier mandates.<sup>31</sup> Thus, Ford argues that broadband investment had already started dropping by 2011 in anticipation of the *Open Internet Order*. Ford finds that "over the interval 2011 to 2015, another \$150-\$200 billion in additional investment would have been made 'but for' Title II reclassification."<sup>32</sup>

The most prominent claim that Title II regulation has not reduced broadband investment has been made by Free Press, which argues that following the *Open Internet Order*, broadband capital investment increased by 5.3% between 2013-2014 and 2015-2016.<sup>33</sup> Hal Singer points out, however, that the increase Free Press asserts is misleading because it includes some large non-broadband investments, including Sprint's leased handsets and certain AT&T investments by DIRECTV and a Mexican affiliate.<sup>34</sup> George Ford reviewed the Free Press analysis, and found that Free Press' data actually shows a decline in capital investment. Ford concludes that "Free Press' own data, therefore, provides support for the \$3.7 to \$5.1 billion investment decline

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<sup>28</sup> Ajit Pai, "Remarks of Federal Communications Commission Chairman Ajit Pai at the Newseum: The Future of Internet Freedom," (speech, Washington, DC, April 26, 2017), available at [http://transition.fcc.gov/Daily\\_Releases/Daily\\_Business/2017/db0426/DOC-344590A1.pdf](http://transition.fcc.gov/Daily_Releases/Daily_Business/2017/db0426/DOC-344590A1.pdf).

<sup>29</sup> Michael J. Horney, "[Broadband Investment Slowed by \\$5.6 Billion Since Open Internet Order](http://freestatefoundation.blogspot.com/2017/05/broadband-investment-slowed-by-56.html)" Free State Foundation Blog (May 5, 2017), available at <http://freestatefoundation.blogspot.com/2017/05/broadband-investment-slowed-by-56.html>.

<sup>30</sup> Hal Singer, "2016 Broadband Capex Survey: Tracking Investment in the Title II Era," March 1, 2017, available at <https://haljsinger.wordpress.com/2017/03/01/2016-broadband-capex-survey-tracking-investment-in-the-title-ii-era/>.

<sup>31</sup> In re Preserving the Open Internet, FCC 10-201, 25 FCC Rcd 17905, Report and Order (December 23, 2010), rev'd and remanded, *Verizon v. FCC*, 740 F.3d 623 (D.C. Cir. 2014).

<sup>32</sup> George Ford, "Net Neutrality, Reclassification and Investment: A Counterfactual Analysis Net Neutrality, Reclassification and Investment: A Further Analysis, Phoenix Center for Advanced Legal and Economic Public Policy Studies (April 25, 2017), available at <http://www.phoenix-center.org/perspectives/Perspective17-02Final.pdf>.

<sup>33</sup> S. Derek Turner, "It's Working: How the Internet Access and Online Video Markets are Thriving in the Title II Era," Free Press (May 2017), available at: <https://www.freepress.net/sites/default/files/resources/internet-access-and-online-videomarkets-are-thriving-in-title-II-era.pdf>.

<sup>34</sup> Hal Singer, "The Days of Common Carriage for Broadband Are Numbered. Here's Why," *Forbes* (May 17, 2017), available at <https://www.forbes.com/sites/washingtonbytes/2017/05/17/the-days-of-common-carriage-for-broadband-are-numbered-heres-why/#77d8ba7978fb>.

cited by Chairman Pai when announcing his intent to review. . . the 2015 *Open Internet Order*.<sup>35</sup>

These reports, as well as the data sources they rely upon, should provide a strong basis for estimating the investment impact of the *Open Internet Order* relative to the baseline. The adverse effects of this decline in annual capital investment on total economic activity are discussed below.

## **VII. Foregone Networks Lead to Many Lost Societal Benefits**

The FCC correctly points out that foregone networks will lead to negative spillover effects in Paragraph 110 of the NPRM:

In addition to the private costs discussed above, foregone networks may also impose additional societal costs. In particular, fewer network effects created by increased connectivity will occur. As another example, society will not realize some efficiencies and savings from governments delivering services over the networks. Additionally, there are likely long run costs due to forgoing better connectivity that would allow new products and services to be created. We seek comment on this analysis. How should our CBA incorporate these types of cost into the analysis? What other ancillary costs might exist? What data is appropriate to use?

Also, foregone networks will lead to many lost societal benefits, in terms of lost employment, lost opportunities for governments to offer improved services, and increased risk for local governments.<sup>36</sup> If the FCC follows the multiplier approach suggested in the next section, then the economic impact of reduced employment will also be captured through the multiplier effect.

Federal, state, and local governmental units in the future may want Amber alerts, severe weather alerts, and Homeland Security warnings given priority over other Internet traffic. As the government services evolve, governments may want to have some form of prioritization available as an option for these and other highly time-sensitive functions. The FCC should include some costs in its analysis reflecting how enhancement in these types of government functions may be delayed by the restrictions in the *Open Internet Order*.

Some state and local governments are also broadband providers, so they are potentially adversely affected by the *Open Internet Order* requirements. To the extent that the *Open Internet Order* is leading to less private broadband capital investment, it is somewhat likely that more state and

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<sup>35</sup> George Ford, "Reclassification and Investment: An Analysis of Free Press' 'It's Working' Report," Phoenix Center for Advanced Legal and Economic Public Policy Studies (May 22, 2017), available at <http://www.phoenix-center.org/perspectives/Perspective17-04Final.pdf>.

<sup>36</sup> George Ford, "Regulatory Revival" and Employment in Telecommunications," Phoenix Center for Advanced Legal and Economic Public Policy Studies (June 12, 2017), available at <http://www.phoenix-center.org/perspectives/Perspective17-05Final.pdf>.

local governments will pursue municipal broadband projects.<sup>37</sup> This is especially important for the FCC to consider given the poor financial performance of municipal broadband providers.

A new study by Christopher Yoo and Timothy Pfenninger of the University of Pennsylvania examines the financial data for all municipal broadband projects that report their financial data separately from other government operations. They find that a majority of the projects are generating negative cash flows, and most of the rest are not on track to break even.<sup>38</sup> These failures have very sizeable costs to local governments, as Yoo and Pfenninger explain:

A closer examination of specific projects reveals that the risks and consequences are quite real. Many cities managing these projects have faced defaults, reductions in bond ratings, and ongoing liability, not to mention the toll that troubled municipal broadband ventures can take on city leaders in terms of personal turmoil and distraction from other matters important to citizens. City leaders should carefully assess all of these costs and risks before permitting a municipal fiber program to go forward.<sup>39</sup>

Based on past poor financial performance of these municipal systems, the FCC should expect a significant share of any new municipal broadband systems to also perform poorly and to put a strain on state and local government finances.

These types of costs can be difficult to quantify but they are nevertheless foreseeable consequences of the *Open Internet Order*. Therefore, they are important to include in the cost-benefit analysis.

### **VIII. Investment and a Multiplier Approach**

The *Restoring Internet Freedom NPRM* proposes to use a multiplier approach to connect the lost investment effects from the *Open Internet Order* to the total economic cost of the 2015 regulation. Paragraph 111 of the NPRM states:

It is also likely that the foregone investment per se results in economic costs (e.g. fewer network construction jobs), and we seek comment on how the Commission should incorporate any such these costs into the analysis. For example, should the Commission use a multiplier to account for economic activity missed due to tempered investment? If so, what are the appropriate multipliers to use? Commenters should provide sources to justify recommendations for multiplier values.

The investment multiplier approach is used to quantify the impact public or private investment spending has on the general economy. It provides an estimate of the additional effects of a policy that are not immediately measurable. A larger multiplier means that the investment was more

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<sup>37</sup> For example, Traverse City, Michigan is currently considering proposals for a municipal broadband system, based on a claimed lack of private broadband availability. Hannah Trostle, “A String of Municipal Network Ideas: Traverse City Mulls Options,” Community Networks (April 17, 2017), available at <https://muninetworks.org/content/string-municipal-network-ideas-traverse-city-mulls-options>.

<sup>38</sup> Christopher Yoo and Timothy Pfenninger, “Municipal Fiber in the United States: An Empirical Assessment of Financial Performance,” University of Pennsylvania Law School’s Center for Technology, Innovation and Competition (May 2017), available at: <https://www.law.upenn.edu/live/files/6611-report-municipal-fiber-in-the-united-states-an>.

<sup>39</sup> Id.

efficient at creating wealth in the economy. An investment multiplier tries to measure the total economic impact of a project, which includes the incomes of construction workers, the profits for material suppliers, and other related costs of the project. These people then spend some of their incomes from the project elsewhere in the economy, which adds to incomes and profits in other sectors of the economy.

The lost investment impact of the *Open Internet Order* discussed above is substantial. However, the FCC correctly suggests in paragraph 111 that the total economic impact is not necessarily the same. It could be lower if much of the investment spending is redirected elsewhere and would still contribute to the economy even under the baseline scenario. Or the investment multiplier could be higher if the additional investment spending leads to a large increase in other spending.

Former Director of the Congressional Budget Office Douglas Holtz-Eakin and Michael Mandel, Chief Economic Strategist for the Progressive Policy Institute, estimate a multiplier for evaluating proposed federal infrastructure projects. They compare their estimate with those used by CBO and the International Monetary Fund:

The midpoint of the CBO's range, 1.3, is very close to the IMF's medium-term estimate of 1.4. However, we note that the actual multiplier could be quite a bit higher or lower depending on the macroeconomic environment. Moreover, predicting the state of the economy even a couple of years ahead is not an easy task. Therefore, we suggest using a conservative medium-term multiplier of 0.8 for the purposes of dynamic scoring. In other words, \$1 of additional infrastructure spending adds \$0.8 to GDP if there is sufficient slack in the economy.<sup>40</sup>

Holtz-Eakin and Mandel conclude that their infrastructure example “suggests that \$100 billion in new infrastructure spending could generate an extra \$62.5 to \$165.5 billion in national output over the next twenty years, taking the initial investment into account.”<sup>41</sup>

Other studies find that the private investment multiplier is larger than a public infrastructure multiplier. For example, Portuguese economists Diogo Barbosa, Vitor M. Carvalho, and Paulo J. Pereira surveyed papers that estimated investment multipliers in developed countries, including papers by António Afonso and Miguel St. Aubyn:

They also found that the impact of a unitary increase in investment on GDP is, on average, 0.73 and 1.47, respectively for public investment and private investment. This means that the private investment multiplier is twice as much as the public investment multiplier for this sample.<sup>42</sup>

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<sup>40</sup> Douglas Holtz-Eakin and Michael Mandel, “Dynamic Scoring and Infrastructure Spending,” McGraw Hill Financial Global Institute (July 6, 2015), at 10, available at <http://media.mhfi.com/documents/201511-MHFIGI-Dynamic-Scoring.pdf>.

<sup>41</sup> Douglas Holtz-Eakin and Michael Mandel, “Dynamic Scoring and Infrastructure Spending,” McGraw Hill Financial Global Institute (July 6, 2015), at 16, available at <http://media.mhfi.com/documents/201511-MHFIGI-Dynamic-Scoring.pdf>.

<sup>42</sup> Diogo Barbosa, Vitor M. Carvalho and Paulo J. Pereira, “The Interaction between Firms and Government in the context of Investment Decisions: A Real Options Approach,” FEP Working Papers 57, (October, 2013), available at <https://www.fep.up.pt/investigacao/workingpapers/wp507.pdf>; citing António Afonso and Miguel St. Aubyn, “Macroeconomic rates of return of public and private investment: Crowding-in and crowding-out effects,” The

There is also good reason to believe that broadband infrastructure investment may contribute more to the economy than investments in other sectors of the economy. Thus, a multiplier above 1.0, and perhaps in the range of 1.25 to 1.75, is likely to be a reasonable and even conservative estimate based on current research.

Applying this multiplier to the Free State Foundation estimate by Michael Horney of a \$5.6 billion reduction in broadband investment over 2015 and 2016<sup>43</sup> produces an estimate of \$7.0 and \$9.8 billion in lost economic activity attributable to the *Open Internet Order*, with a midrange estimated economic impact of negative \$8.4 billion. Horney's estimate showed that the gap between the baseline investment and actual investment was growing. If this trend continues, as is likely, the economic impact of the *Open Internet Order* will only become greater, in a negative direction, over time.

### **IX. Costs of New Products and Services Held Back by Regulation**

The FCC asks for comment on new product and services that do not emerge and become viable due to the *Open Internet Order* in paragraph 112:

Lastly, there may be other costs that are not directly the result of decreased investment in networks. Maintaining current policies may prevent new business models or new product and services from being viable and ultimately delivering value to society. We seek comment on such costs and how we may incorporate them into our analysis.

The most likely impediment to the development of new business models or new products and services that would otherwise deliver value to society is the prohibition against paid prioritization. Slotting allowances used by bookstores and grocery stores, priority seating at sporting events, and tolls for using fast lanes on highways are paid prioritization arrangements that have proven success in attracting more investment that leads to better economic outcomes for customers.<sup>44</sup> For this reason, vertical restraints in other markets consistently have been examined on a case-by-case basis, an approach endorsed by the U.S. Supreme Court in a 2007 decision when it rejected the *per se* prohibition of minimum resale prices.<sup>45</sup>

Some specialized services for dedicated users require a high level of end-to-end reliability, which may not be available now or in the future under the current ban on paid prioritization. For example, the benefits from video phone calls and video streams from Netflix are reduced when they are delayed by slow buffering. Other Internet uses, like emailing and most file downloads, retain most or all of their value if their transmission is slightly delayed. As capital investment in broadband capacity continues to decline and demand for Internet services increases, the ban on

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Manchester School 77, 21–39 (2009); and Ant3nio Afonso & Miguel St. Aubyn, “Public and private investment rates of return: evidence for industrialized countries, Applied Economics Letters (2010), 17:9, 839-843.

<sup>43</sup> Michael J. Horney, “[Broadband Investment Slowed by \\$5.6 Billion Since Open Internet Order](http://freestatefoundation.blogspot.com/2017/05/broadband-investment-slowed-by-56.html)” Free State Foundation Blog (May 5, 2017), available at <http://freestatefoundation.blogspot.com/2017/05/broadband-investment-slowed-by-56.html>.

<sup>44</sup> See Theodore Bolema, “Allow Paid Prioritization on the Internet for More, Not Less, Capital Investment” Free State Foundation (May 1, 2017), available at [http://www.freestatefoundation.org/images/Allow\\_Paid\\_Prioritization\\_on\\_the\\_Internet\\_for\\_More,\\_Not\\_Less,\\_Capital\\_Investment\\_050117.pdf](http://www.freestatefoundation.org/images/Allow_Paid_Prioritization_on_the_Internet_for_More,_Not_Less,_Capital_Investment_050117.pdf).

<sup>45</sup> *Leegin Creative Leather Products, Inc. v. PSKS, Inc.*, 551 U.S. 877 (2007).

paid prioritization will affect both services that are sensitive to delays and services that are not. Those that are harmed may be better off paying extra, in the same way that some people shipping packages are willing to pay extra for priority mail services, while others will not see enough benefit from avoiding delays to justify paying more.

New entrants in existing markets may be willing to pay more to ensure that delays are avoided in order to enhance their chances of gaining a foothold and establishing a customer base. And it may be that allowing some form of prioritization provides incentives for differentiating services, especially those offered by a new entrant trying to establish a market presence. This is another way that eliminating an absolute ban on paid prioritization is likely to be pro-competitive.

Autonomous vehicles, interactive e-learning, and telemedicine are examples of applications in their early stages of development that may require access to fast and stable Internet connections. Investors may be unwilling to take the risk of investing in these applications if they cannot be assured of reliable prioritized broadband connections.

The economic benefits from these new services are very large. For example, Clifford Winston and Quentin Karpilow estimate that “autonomous vehicles could generate 3 million additional jobs, raise the nation’s annual growth rate by 1.8 percentage points from a 2010 baseline GDP of about \$14.6 trillion, and raise annual labor earnings by more than \$100 billion.”<sup>46</sup> Winston and Karpilow note that their estimates are for passenger vehicle traffic alone, and that large economic gains will also be achieved for freight traffic using autonomous trucks.<sup>47</sup> Thus, any delays in the development of the infrastructure needed to support autonomous vehicles due to insufficient broadband investment and the inability to offer prioritized connections will impose very large costs relative to the baseline, and must be considered in any cost-benefit analysis.

The FCC should also consider how the burden of the *Open Internet Order* likely falls more heavily on small businesses, a source of important innovation in the economy. As Karen Kerrigan, President and CEO of the Small Business & Entrepreneurship Council, explains:

Of course, most directly, small businesses are being affected by higher costs and more regulations. And, again, the damage to investment hinders innovation and broadband access. By creating major uncertainty in the marketplace the FCC has diminished the incentives to invest, which are the life-blood of innovation and dynamic entrepreneurship.

It’s time to end this failed effort and return to a lighter regulatory framework for our Internet ecosystem. I strongly encourage Chairman Pai to take swift action to undo this onerous regulatory leftover from the Obama Administration. A modern and enlightened regulatory approach will help entrepreneurs and small businesses take full advantage of

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<sup>46</sup> Clifford Winston and Quentin Karpilow, “A New Route to Increasing Economic Growth Reducing Highway Congestion with Autonomous Vehicles,” Mercatus Working Paper, Mercatus Center at George Mason University (January 2017) at 43, available at <https://www.mercatus.org/publications/economic-growth-congestion-autonomous-vehicles>.

<sup>47</sup> Id.

the opportunities afforded by the broadband Internet to help grow the economy, innovate and create jobs.<sup>48</sup>

The rigid prohibition against charging for paid prioritization is preventing or delaying new and innovative services from developing in ways that are difficult to anticipate. The impact of these lost opportunities is difficult to measure because we cannot easily anticipate what will never happen. The Winston and Karpilow analysis of driverless vehicle technology is a rare study that attempts to anticipate these economic benefits. Nonetheless, the FCC should include an estimate of the loss of economic activities for delays in the development of these new applications.

## **X. Benefits from the *Open Internet Order* Depend on Finding a Market Failure**

The FCC requests comments on benefits created by the current policies, relative to an appropriate baseline, and how those benefits are due to a market failure that is not addressed by the light touch regulation that existed before 2015. Paragraph 113 and 114 of the NPRM state:

Benefits. There are various theoretical possibilities for economic benefits created by the current policies. We therefore seek comment on these benefits. Commenters should identify these benefits relative to an appropriate baseline, not relative to a situation where there is no regulation or statute to govern behavior. For example, if the ban on paid prioritization is maintained but broadband Internet access service is classified as an information service, then commenters should identify the benefits a blanket ban on paid prioritization carries over the FTC's authority to police anticompetitive conduct.

We particularly seek comments that attempt to quantify the benefits rather than merely suggest the existence of benefits without any indication of its magnitude. We also ask commenters to particularly highlight benefits where actual misconduct has been observed. To the extent the baseline scenario allows any market failures to go unregulated, commenters should clearly identify the market failure and the estimated economic benefit associated with addressing through maintenance of current policies.

Jerry Brito and Jerry Ellig of the Mercatus Center wrote in 2007 about how the FCC should evaluate net neutrality proposals. In this article, written a decade ago, Brito and Ellig questioned whether the FCC could find any meaningful market failure and warned about consequences of failing to do so before proceeding with any form of net neutrality regulation:

Regulatory economists generally accept that government action can enhance consumer welfare when a clear "market failure" exists that cannot be addressed adequately by other means. Thus, regulatory analysis must explicitly identify market failures or other systemic problems underlying the need for action. If there is no market failure or other systemic problem, then government action will likely do more harm than good.<sup>49</sup>

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<sup>48</sup> Karen Kerrigan, "The Obama Era Rules the FCC Must Undo," Real Clear Markets (April 26, 2017), available at [http://www.realclearmarkets.com/articles/2017/04/26/the\\_obama\\_era\\_rules\\_the\\_fcc\\_must\\_undo\\_102652.html](http://www.realclearmarkets.com/articles/2017/04/26/the_obama_era_rules_the_fcc_must_undo_102652.html).

<sup>49</sup> Jerry Brito and Jerry Ellig, "A Tale of Two Commissions: Net Neutrality and Regulatory Analysis," 16 *CommLaw Conspectus* 1, 16 (2007), citing W. Kip Viscusi, John M. Vernon and Joseph Harrington, Jr., *Economics of Regulation and Antitrust* 313-35, 337-58 (3d ed., 2000) (1992).

The FCC justified the 2015 *Open Internet Order*, including its ban on paid prioritization on the Internet, in large part on what it called the “virtuous cycle” theory:

The key insight of the virtuous cycle is that broadband providers have both the incentive and the ability to act as gatekeepers standing between edge providers and consumers. As gatekeepers, they can block access altogether; they can target competitors, including competitors to their own video services; and they can extract unfair tolls. Such conduct would, as the Commission concluded in 2010, “reduce the rate of innovation at the edge and, in turn, the likely rate of improvements to network infrastructure.” In other words, when a broadband provider acts as a gatekeeper, it actually chokes consumer demand for the very broadband product it can supply.<sup>50</sup>

Thus, the 2015 FCC majority argued that its restrictions on broadband providers would encourage investment by ISPs by taking away their incentive to restrict output and drive up their tolls. In doing so, the Internet would be divided into “fast lanes” for those who pay the tolls and “slow lanes” for those that don’t. The 2015 FCC majority offered very little evidence, however, that any of these conjectured harms were occurring, despite the history of the Internet having been allowed to develop to that point with less restrictive regulatory oversight and no ban on paid prioritization. As then-Commissioner Ajit Pai pointed out in his dissent to the *Open Internet Order*:

Nevertheless, the Order ominously claims that “[t]hreats to Internet openness remain today,” that broadband providers “hold all the tools necessary to deceive consumers, degrade content or disfavor the content that they don’t like,” and that the FCC continues “to hear concerns about other broadband provider practices involving blocking or degrading third-party applications.” The evidence of these continuing threats? There is none; it’s all anecdote, hypothesis, and hysteria. . . . One could read the entire document—and I did—without finding anything more than hypothesized harms. One would think that a broken Internet marketplace would be rife with anticompetitive examples. But the agency doesn’t list them. And it’s not for a lack of effort.<sup>51</sup>

FSF’s Seth Cooper recently described the warning from Tad Lipsky, Acting Director of the FTC’s Bureau of Competition, as follows:

Characterizing himself as a “light touch regulator” and as “a fan of antitrust as the way of ensuring that dynamic free competition gives the consumer what he wants,” Mr. Lipsky also criticized the public utility model of regulation embodied in the 1887 Interstate Commerce Act, stating: “[I]t is a fact that the FCC Title II regulation is a direct descendant of that form of regulation.” Mr. Lipsky added:

[T]he temptation to look at the problems of a dynamic and quickly developing industry and to immediately apply this structure of economic regulation as a way

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<sup>50</sup> Federal Communications Commission, *Open Internet Order*, March 12, 2015 at ¶ 20 (footnotes omitted).

<sup>51</sup> Dissenting Statement of Commissioner Ajit Pai, *Open Internet Order* (footnotes omitted).

of anticipating and making sure that future problems don't arise has largely been a failure.<sup>52</sup>

Cooper observes:

Of course, the FCC's *Title II Order* succumbed to such temptation. The order imposed public utility regulation on broadband Internet access services with no evidentiary findings of market failure or consumer harm. Indeed, the *Title II Order* dismissed market power's relevance.<sup>53</sup>

Market power, of course, is highly relevant for finding a market failure based on the virtuous cycle theory. So long as markets are reasonably competitive, or are moving toward becoming competitive, arrangements that try to take advantage of other parties will not survive for long, because the parties at a disadvantage can find alternative arrangements.

The virtuous cycle theory also ignores the benefits that are typically achieved in other markets from allowing vertical arrangements to develop as suppliers, distributors, and customers experiment in the market to find the arrangements that provide the greatest benefits.<sup>54</sup> Unless the FCC can identify actual systematic evidence of harm from market failures that could only be corrected by the FCC, it is difficult to see how the FCC can conclude that the *Open Internet Order* regulations achieve any net benefits relative to the baseline.

Moreover, the *Open Internet Order* is imposing nontrivial compliance costs on parties, such as those related to the Internet general conduct standard discussed above. Thus, even relatively benign provisions in the *Open Internet Order*, like the bans on blocking and throttling that may not draw objections from Internet providers, will at best achieve no net benefits while still imposing compliance costs.

## **XI. The FCC Must Also Consider Other Regulatory Approaches**

OMB Circular A-4 requires that executive branch agencies consider less intrusive regulatory approaches as part of their cost-benefit analysis. Even if the FCC concludes that a market failure exists in its baseline scenario, that does not mean that the only alternative is the full Title II regulation imposed by the *Open Internet Order*. Instead, the FCC must then consider other case-by-case regulatory approaches that are different from the pre-2015 regulatory environment.

Former FCC Chief Economist Tim Brennan, a member of the Free State Foundation's Board of Academic Advisors, in his "economics-free zone" *FSF Perspectives* suggested three alternative approaches that the FCC should consider:

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<sup>52</sup> Seth L. Cooper, quoting Tad Lipsky, "[Why the FTC Should Oversee Broadband Internet Service Providers](http://freestatefoundation.blogspot.com/)," Free State Foundation Blog (June 9, 2017), available at <http://freestatefoundation.blogspot.com/>.

<sup>53</sup> Id.

<sup>54</sup> See Theodore Bolema, "Allow Paid Prioritization on the Internet for More, Not Less, Capital Investment" Free State Foundation (May 1, 2017), available at [http://www.freestatefoundation.org/images/Allow\\_Paid\\_Prioritization\\_on\\_the\\_Internet\\_for\\_More,\\_Not\\_Less,\\_Capital\\_Investment\\_050117.pdf](http://www.freestatefoundation.org/images/Allow_Paid_Prioritization_on_the_Internet_for_More,_Not_Less,_Capital_Investment_050117.pdf).

First, if broadband providers advertise content-neutral practices, they should be held accountable as a matter of consumer protection. It remains to be seen whether we are better served by the FCC taking over this responsibility from the Federal Trade Commission, which lost its authority over broadband following its reclassification by the FCC as a common carrier.

Second, if the value of broadband depends on confidence that others can open links I post (unless they lie behind a paywall, like The Wall Street Journal's), minimum-quality regulation may be warranted. While the FCC nominally rejected a minimum-quality rule, its "no throttling" rule implies minimum quality – the lower limit of what would presumably be acceptable quality, "unthrottled," to use the FCC's terminology. A minimum-quality rule would also address concerns that a broadband provider would diminish the quality of non-priority service. The theoretical appeal of a minimum quality does not make such a rule operational, enforceable, and worth any costs in additional congestion management.

A third possibility is regulating the price broadband suppliers charge for content delivery. The FCC effectively has done this. Its "no blocking" rule implies a regulated price of zero for content delivery, because broadband service cannot be denied to content suppliers who do not pay. But the novelty – and highly problematic nature – of this approach is not appreciated by some. The federal government has been reluctant to regulate sectors without a clear monopoly provider, because competition between only two firms is likely to lead to a better outcome than regulation. And regulation is even harder to justify when, as in this case, technological progress rapidly changes the definition of the product one is trying to regulate.<sup>55</sup>

These and other reasonable alternative approaches should be carefully considered before concluding that the highly restrictive public utility regulatory approach in the *Open Internet Order* passes a cost-benefit test. The FCC need not consider every possible alternative approach, but it should commit to considering several lighter touch alternatives such as these, assuming it first finds that it has any role in addressing a market failure.

## Conclusion

The FCC's recent actions to better incorporate economic analysis in its regulatory review process are a welcome development. Other federal agencies have been using cost-benefit analysis for decades to better evaluate their regulatory proposals and to help them understand the likely results of different regulatory options they are considering. The FCC should follow their example, drawing upon the expertise that has been developed in their regulatory reviews, as well as from OIRA as it has reviewed the economic analyses by executive agencies.

The *Open Internet Order* has important economic implications that were not considered in 2015. The FCC's current proposal to conduct a proper cost-benefit analysis, following the guidance of OMB Circular A-4, can address that deficiency.

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<sup>55</sup> Tim Brennan, "Is the Open Internet Order an "Economics-Free Zone?" Free State Foundation, June 28, 2016, available at [http://www.freestatefoundation.org/images/Is\\_the\\_Open\\_Internet\\_Order\\_an\\_Economics\\_Free\\_Zone\\_062816.pdf](http://www.freestatefoundation.org/images/Is_the_Open_Internet_Order_an_Economics_Free_Zone_062816.pdf).

The potential costs of the regulatory environment imposed by the *Open Internet Order* are very large. These costs include the uncertainty added to the market, lost capital investment, and threats to the emergence of new products and services that may require priority access in the future. These costs can only be justified if the FCC can identify a market failure from the pre-2015 regulatory approach that can only be addressed by FCC regulation.

Given the remarkable record of innovation, investment, and choice of new services offered to customers during the era of less restrictive regulation, it is unlikely that any such market failure can be found. Even if the FCC can identify this type of market failure, it must also consider whether alternative approaches, which might include increased antitrust enforcement or new consumer protection regulations by the Department of Justice and the FTC, are sufficient to address the market failure before resorting to public utility regulation of a broadband market.

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