TPInsights

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Economics, Experts, and Federalism in *Mozilla v. FCC*

In *Mozilla v. FCC*, the U.S. Court of Appeals for the D.C. Circuit addressed dozens of questions of law, technology, and economics in its 186-page opinion on the lawfulness of the FCC's 2018 Restoring Internet Freedom rulemaking. The Court upheld the FCC's decision to return to its earlier classification of broadband Internet access service as an "information service" under Title I of the Telecommunications Act of 1996.[1]

This *TPInsight* provides important insights into how courts consider economic analysis, competing experts, and federalism in the digital economy.

KEY TAKEAWAYS

- The Court upheld the FCC's *2018 Order* as a reasonable reversal of its 2015 *Title II Order*
- The FCC reasonably relied on expert reports, competition analysis, and cost-benefit analysis
- The Court vacated the *2018 Order*'s Preemptive Directive, meaning that litigation over state regulation of broadband Internet access service will continue

The Court and Economic Analysis

While the crux of *Mozilla* focused on whether the FCC reasonably reversed an earlier rulemaking, economic analysis played an important role in the agency's reclassification order. This section discusses how the Court reviewed some difficult economic questions, including competition and cost-benefit analysis.

Measuring Competition: A Return to Cross-Elasticities

A key question the Court considered is the degree of competition in broadband markets. In its *2018 Order*, the FCC justified its reclassification of broadband Internet access service based on its understanding of the broadband sector.

In the *2018 Order*, the FCC reclassified mobile broadband to exempt it from common carriage treatment.[2] In doing so, the FCC relied on a key factor in determining how much competition exists, namely the degree to which different broadband services are economic substitutes to consumers.

Functional Equivalence of Mobile Broadband and Mobile Voice

In its 2015 *Title II Order*, the FCC introduced a new approach for determining functional equivalence of mobile broadband and mobile voice. The *Title II Order* compared mobile offerings by whether a service is "widely available" and "offers mobile subscribers the

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[1] *Mozilla v. FCC* (CADC 2019), upholding the *2018 Order*, https://www.cadc.uscourts.gov/internet/opinions.nsf/FA43C305E2B9A35485258486004F6D0F/$file/18-1051-1808766.pdf (released on October 1, 2019).
[2] *Id*. at 46.

capability to send and receive communications on their mobile device to and from the public."[3] This approach diverged from the understanding of functional equivalence that the FCC had used between 1994 and 2015.

In the 1994 *Second CMRS Report and Order,* the FCC had used a more standard competition analysis to determine substitutability between mobile services. Economic substitutability is determined based on analysis of the effects of "small but significant percentage" changes in price.[4] Furthermore, national plans with bundles of complementary goods "does not undermine [its] conclusion that consumers do not regard [the services] as fungible."[5]

Economists generally prefer cross elasticities as measures of substitutability because changes in the response of consumers to prices and quantities of similar services can quantify whether consumers actually view the goods or services as interchangeable. Revealed preferences in actual consumer behavior as measured by cross elasticity analysis offer better data than surveys or subjective observations on whether services are interchangeable in the minds of consumers.

The Court concluded that the Commission's use of cross-elasticity in its *2018 Order*[6] is a reasonable way to determine whether mobile broadband and mobile voice are "functional equivalent[s]."[7] The Court found the FCC within its authority to return to a cross-elasticities approach and reverse the "widely available" approach introduced in the 2015 *Title II Order*.[8]

"Meaningful Competition" Exists in Fixed Broadband, but FCC Analysis "Less Than Fully Satisfying"

In its *2018 Order*, the FCC supported its decision to reclassify broadband based on its assessment of competition in fixed broadband. The FCC concluded that "meaningful competition" exists, and therefore a return to Title I light-touch regulation was appropriate.[9] The Court found that some of the FCC's economic analysis was deficient but that it nevertheless sufficiently justified its finding of meaningful competition.[10]

In the *2018 Order*, the FCC did not fully discuss whether fixed satellite and fixed terrestrial wireless Internet access service are effective competitors to fixed broadband service.[11] The FCC also declined to determine whether lower speed and higher speed fixed Internet services are in the same market in the *2018 Order*. The Court found this lack of economic analysis less than "fully satisfying."[12]

Despite finding deficiencies in the *2018 Order* on these points, the Court was satisfied with other aspects of the FCC's economic analysis of fixed broadband markets. The FCC reasonably relied on empirical research on spillover effects of competition in wireless markets, rejected the terminating monopoly thesis by citing a lack of sufficient evidence for inefficient prices, and rejected the low churn rate thesis as evidence of market power.[13]

In its analysis of fixed broadband competition in the *2018 Order*, the FCC rejected the "terminating access monopoly" thesis,[14] reversing the conclusion from the *Title II Order.*[15] The Court found that the FCC explained its rationale for rejecting the thesis, citing consumer choices between fixed and mobile service to access edge provider content and lack of evidence of price inefficiencies.[16]

In his part-concurring and part-dissenting opinion, Senior Judge Stephen Williams made special note that petitioners did not contest the FCC's findings of moderate concentration, which strengthened the FCC's case more than the majority opinion let on.[17] Using the Herfindahl-Hirschman Index (HHI), the FCC notes that residential fixed broadband service (with 25 mbps download speed and 3 mpbs

[3] Id. at 63, citing the *Title II Order*, para. 404.
[4] *Id*. at 64.
[5] *Id*. at 65.
[6] *Id*. at 62.
[7] 47 U.S.C. §332(d)(3).
[8] *Id*. at 63. The Court noted that the petitioners did not explicitly challenge the FCC's use of cross-elasticity to define functional equivalence. *Id*. at 65.
[9] *Id.* at 88.
[10] *Id*. at 89.
[11] *Id*.
[12] *Id*.
[13] *Id*. at 90.
[14] Id. at 90 (describing the "terminating access monopoly" thesis as "even if there is competition in the local market for broadband, once a consumer chooses a broadband provider, that provider has a monopoly on access to her. In turn, the provider can use that access to control the interaction between edge providers, end users, and others.").
[15] *Id*.
[16] *Id*.
[17] *Mozilla v. FCC* (CADC 2019) (Williams, J., dissenting) at 23.

upload speed) is within the Department of Justice's designation of a "moderately concentrated" market with a score of 2,208 which falls within range of 1,500 and 2,500.[18]

Cost-Benefit Analysis

The Court reviewed the FCC's cost-benefit analysis at the request of petitioners, who opposed the qualitative, rather than quantitative, nature of analysis. Petitioners also objected to the FCC's choice of methodology and explanation of economic conclusions in the *2018 Order*.[19]

The Court found the FCC within its authority to apply qualitative, rather than quantitative, analysis, in conformance to OMB Circular A-4's criteria for the selection of qualitative over quantitative analysis.[20] OMB Circular A-4 reads, "'[W]here no quantified information on benefits, costs, and effectiveness can be produced, the regulatory analysis should present a qualitative discussion of the issues and evidence.'"[21] Because the administrative record lacked data that would make it possible to quantify costs and benefits, the Court decided that the FCC made a reasonable decision to rely on a qualitative analysis to assess "the direction of the effect on economic efficiency" of a reclassification decision.[22]

Valuing non-market goods is a difficult part of economic analysis. The Court found that the FCC's choice of qualitative analysis in the absence of data complied with the OMB's warning guidance, "'[w]hen important benefits and costs cannot be expressed in monetary units,' attempting a quantitative cost-benefit analysis 'can even be misleading because the calculation of new benefits in such cases does not provide a full evaluation of all relevant benefits and costs.'"[23]

This discussion in *Mozilla* reveals an important challenge for economic analysts, scholars, and researchers of the digital economy. Specifically, much of the benefits and costs of changes in market structure of broadband infrastructure, edge content, and marketplaces are not easily measured in monetary units.

A recurring theme of litigation and legislation related to the digital economy is that harm or injury often involves quantification of non-market goods and services. In many cases, costs and benefits are not easily measured in monetary units, such as in matters of privacy and consumer protection, data breach, and cybersecurity. Policymakers face difficulties in determining remedies or rules that would effectively treat or prevent alleged harms.

The Court, Experts, and *Chevron* Deference

In *Mozilla*, the Court reveals a sophisticated understanding of the realities of predictions, forecasts, and peer-review in its discussion of the effects on investment and innovation. The Court reviews cost-benefit analysis with deference,[24] noting that a battle of experts with competing measures of costs and benefits is the appropriate forum where parties can challenge each other's methods and data. After reviewing petitioner's claims of "serious flaw[s]" in the agency's economic analysis, the Court upholds the FCC's cost-benefit analysis in the *2018 Order*.[25]

The Court engages in a standard application of *Chevron* deference in *Mozilla*. Administrative law practitioners would likely agree that the Court's *Chevron* Step 1 and Step 2 analysis was not particularly controversial.[26] *Mozilla*, however, reveals ongoing tensions between regulators, federal and state governments, and economists on the effects of regulation on the digital economy. The Court spends much time assessing whether the FCC reasonably interpreted research studies based on available market data. It also discusses its own ability to rely on predictive analysis.

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[18] *Id*.
[19] *Id*. at 113.
[20] OMB Circular A-4 (2003), https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/circulars/A4/a-4.pdf.
[21] *Id*. at 114, citing OMB Circular A-4 at 10.
[22] *Id*. at 115, citing *2018 Order* para. 304.
[23] *Id*. at 115, citing OMB Circular A-4 at 10.
[24] *Id*. at 113.
[25] *Id*. at 119.
[26] *Id*. at 15 ("Our review is governed by the familiar *Chevron* framework in which we defer to an agency's construction of an ambiguous provision in a statute that it administers if that construction is reasonable."…"At *Chevron* Step One, we ask 'whether Congress has directly spoken to the precise question at issue.'…But if 'the statute is silent or ambiguous with respect to the specific issue,' we proceed to *Chevron* Step Two, where 'the question for the court is whether the agency's answer is based on a permissible construction of the statute.'").

The Court describes its posture toward predictive analysis: "Predictions regarding the actions of regulated entities are precisely the type of policy judgments that courts routinely and quite correctly leave to administrative agencies."[27] The Court admits its own limits in predicting outcomes, then defers to agencies who then are limited in their ability to predict outcomes. The Court determines the agency reasonably interpreted many reports, trends, facts, and reports, each subject to peer review and disputes on specifications for econometric and statistical models.

Judges cannot know which experts are better at interpreting the past or forecasting the future. What the Court can judge is whether the FCC interprets the reports reasonably, whether experts have peer reviewed each other's work, and how much to rely on experts. The Court notes, "When intricacies of econometric modeling are in dispute, 'we do not sit as a panel of referees on a professional economics journal, but as a panel of generalist judges obliged to defer to a reasonable judgment by an agency acting pursuant to congressionally delegated authority.'"[28]

When expert economists disagree, the FCC can take "quite proper…caution about the empirical issues,"[29] assigning "quite modest probative value to studies,"[30] and be "fairly modest in its reliance"[31] on studies with limited data. The Court knows what it does not know and remarks on "the impenetrability of the matter from our perspective" in a dispute between expert reports.[32]

Did the FCC reasonably rely on certain expert reports over others? The Court says it is not the right institution to decide the more controversial economic questions: "Perhaps the methodological dispute will ultimately attract scholarly attention and be sorted out persuasively on one side or the other… But we are not the needed scholars, and will not pretend we understand more than we do."[33]

The Court also concluded that the FCC should receive *Chevron* deference in determining the probative value of expert reports in this case, especially since the "effect on investment was subject to honest dispute."[34] "Evaluating complex market conditions," under a reasonableness standard is within the authority of the expert agency.[35]

Preemption and Federalism

A key disagreement in the case was whether the FCC had authority to preempt state rules, as it asserted it could in the *2018 Order* under Title I. The majority opinion finds that the FCC did not have preemption authority under Title I.[36] The dissenting opinion objected to the majority's interpretation of Title I, suggesting that the majority's theory of asymmetry in regulatory and deregulatory intent lead to illogical conclusions about the FCC's authority.[37]

Judge Williams described the illogical outcome of treating Title I's authority for deregulation as a "Cinderella-like waif" that needed Congressional protection.[38] He argued that the majority's opinion could leading to the "height of formalism" if the FCC must articulate deregulatory actions under Title I in a different manner than regulatory action.[39] Without preemption authority under Title I, Judge Williams argued the FCC's regulatory efforts could be rendered "meaningless."[40]

The preemption debate in *Mozilla v. FCC* has the effect of directing attention to Congress, the states, and the Supreme Court. The Court's rejection of the Preemption Directive leads to paradoxical outcomes of statutory interpretation, several of which are described in the dissenting opinion.

Judge Williams suggests that further litigation may follow the majority's decision regarding state legislation in this area of broadband regulation. California and other states have already passed statutes that conflict with the FCC's *2018 Order*.[41] Judge Williams describes

[27] *Id*. at 75, citing *Public Citizen v. NHTSA* (CADC 2004) (quoting *PUC v. FERC* (CADC 1994)).
[28] *Id*. at 79, citing *USTA v. FCC* (CADC 2016) (quoting *City of Los Angeles v. USDOT* (CADC 1999)).
[29] *Id*. at 76.
[30] *Id*. at 78.
[31] *Id*. at 79.
[32] *Id*. at 79 (describing competing reports by George Ford and Christopher Hooton).
[33] *Id*. at 80.
[34] *Id*. at 84.
[35] *Id*. at 85, citing *Gas Transmission v. FERC* (CADC 2007).
[36] *Id*. at 121.
[37] *Mozilla v. FCC* (CADC 2019) (Williams, S.J. concurring in part, dissenting in part).
[38] *Id*. at 19.
[39] *Id*. at 20.
[40] *Id*. at 23.
[41] *Id*. at 1, citing Cal. S. Comm. on Judiciary, SB 822 Analysis 1 (2018).

different interpretations by the 8th and 9th Circuit courts on the FCC's authority to preempt state laws under Title I in the *Computer III* and VoIP cases.[42]

Judge Millett and Judge Wilkins in their concurrences both suggest, not unsubtly, that the parties should direct attention to the Supreme Court where precedent from *Brand X* governs lower court interpretations of the Telecommunications Act.

The debate over preemption authority conferred in Title I also directs attention to Congress. If the statute is unclear, raising conflicting interpretations, Congress can clarify its intentions through new legislation. Judges are not legislators, and they look to Congress and the states to formulate policy.

The tension of federalism and the digital economy is a central theme in *Mozilla v. FCC*, seen in the debate on preemption authority in Title I in the majority and dissenting opinions. As "software eats the world" where digitization extends into more of the physical world, the government will need to decide how to make policy decisions and delegate authority on matters of broadband access, privacy, data breach, biometrics, and more. Will states like California have outsized influence on matters of the tech economy, or should Congress more clearly formulate national policy to prevent regulatory fragmentation?

Conclusion

The seemingly interminable wait for the Court's decision in *Mozilla v. FCC* is finally at an end. In its 186-page decision, the Court described how it considered economic concepts, arguments, and expert reports. It upheld the FCC's *2018 Order* but rejected its claimed preemption authority. As we have learned, the net neutrality debates will never die, but they may now change venue.

Nota Bene: TPI Economists Cited in *Mozilla v. FCC*

Several economists affiliated with the Technology Policy Institute were cited by the Court in the *Mozilla v. FCC* opinion.

The Court reviewed the FCC's citation of two economics research articles in the *2018 Order*. The academic studies were commissioned by the Technology Policy Institute for a conference on May 23, 2017,[43] resulting in a special issue published in the *Review of Industrial Organization*.[44] Economic analysis by Robert Crandall, Thomas Hazlett, and Joshua Wright were discussed at length in the majority's opinion.

Robert Crandall, an adjunct senior fellow at the Technology Policy Institute, produced economic research that found no stock price impact from net neutrality regulation in his article, *The FCC's Net Neutrality Decision and Stock Prices*.[45] The Court finds the FCC's reading of Crandall's study as reasonable that "the market would have factored into the stock price investors' expectations of the ultimate Commission action before it occurred."[46]

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[42] *Id*. at 18, citing *California v. FCC* (CA9 1994); *California v. FCC* (CA9 1990); *Minnesota PUC v. FCC* (CA8 2007).
[43] Technology Policy Institute, The Future of the Internet in a Post-Internet Regulation World, co-hosted with Center for Technology, Innovation and Competition, University of Pennsylvania Law School, May 23, 2017, Washington, D.C., https://techpolicyinstitute.org/events/the-future-of-the-internet-in-a-post-internet-regulation-world/.
[44] Special Issue on Net Neutrality (edited by Scott Wallsten), *Review of Industrial Organization*, Volume 50, Issue 4 (June 2017), https://link.springer.com/journal/11151/50/4/page/1.
[45] Robert Crandall, *The FCC's Net Neutrality Decision and Stock Prices*, 50 *Review of Industrial Organization* 555-582 (2017).
[46] *Mozilla v. FCC* (CADC 2019), at 83.

Thomas Hazlett, a faculty advisor at the Technology Policy Institute, and Joshua Wright, conducted a study that applied a counterfactual analysis to find evidence of effects from FCC regulation.[47] The Court notes that the FCC reasonably relied on the study and that the methodology was uncontested by petitioners.[48]

Sarah Oh, a senior fellow at the Technology Policy Institute, also made an appearance in the Court's opinion, with acknowledgement as an attorney involved in the appeal.[49] Sarah, along with Scott Wallsten and Thomas Lenard and pro bono counsel John Seiver and Daniel Reing of Davis Wright Tremaine LLP, filed a brief with the Court to highlight various scholarly perspectives and economic analysis of the *Title II Order* in a special issue on the economics of net neutrality.

[47] Thomas Hazlett and Joshua Wright, *The Effect of Regulation on Broadband Markets: Evaluating the Empirical Evidence in the FCC's 2015 'Open internet' Order*, 50 *Review of Industrial Organization* 487-507 (2017).
[48] *Id.* at 76, 81.
[49] *Id*. at 6, citing *Brief of the Technology Policy Institute as Amicus Curiae in Support of Respondents, Federal Communications Commission and United States of America*, October 18, 2018, https://techpolicyinstitute.org/wp-content/uploads/2018/10/Brief-of-the-Technology-Policy-Institute-as-Amicus-Curiae-in-Support-of-Respondents.pdf.