I. Introduction

I want to thank the Federalist Society’s Telecommunications and Media Practice Group and its George Washington University Law Student Chapter for the invitation to speak with you today.**

Today’s conference occurs at a fortuitous time, as the FCC Chairman has indicated the Commission will be voting on new net neutrality regulations tomorrow. The connection between net neutrality and media is so obvious it hardly needs to be stated. An increasing number of consumers use broadband internet access to consume an increasingly large amount of media. This media includes not only that which used to be consumed on the printed page, but also that which used to be consumed on television, and that which used to be consumed in a movie theater, and that which used to be consumed not at all—like, for instance, cat videos.

Once we are able to review the FCC’s specific proposed regulations tomorrow, I suspect the debate surrounding the FCC Chairman has indicated the Commission will be voting on new net neutrality regulations tomorrow. The connection between net neutrality and media is so obvious it hardly needs to be stated. An increasing number of consumers use broadband internet access to consume an increasingly large amount of media. This media includes not only that which used to be consumed on the printed page, but also that which used to be consumed on television, and that which used to be consumed in a movie theater, and that which used to be consumed not at all—like, for instance, cat videos.

Before I discuss net neutrality specifically, I think it is worthwhile to ask a threshold question that I feel too often gets ignored in policy debates about net neutrality: what is the economic problem that net neutrality is supposed to solve? In other words, what is the economic basis for any regulation in the broadband market? To do this properly, it is worthwhile first to consider the theoretical bases for economic regulation generally. In other words, what can we say generally about why regulation may be necessary in certain industries?

The standard economic answer is that a market failure is necessary, but not sufficient, for regulation. Market failure—that is, an identifiable reason an unfettered free market may result in the misallocation of resources—is necessary but not sufficient because there are multiple ways to solve problems involving market failure. If market failure exists, an important second question arises concerning the relative efficiency of alternative solutions, including regulation. However, well-understood principles of the economics of regulation require a solid understanding of the market failure to be solved before moving on to evaluating the costs and benefits of regulatory alternatives. In short, it makes little sense to subject consumers—in this case internet users—to a medical treatment or procedure without knowing whether they are sick in the first place.

We can generally describe four types of markets in

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**The views stated here are my own and do not necessarily reflect the views of the Commission or other Commissioners. I am grateful to my advisor, Derek Moore, for his invaluable assistance in preparing this speech.
which regulation may be necessary to correct a market failure.

The first is a natural monopoly in which fixed costs are large relative to the marginal costs of production. If this occurs, then it may be more efficient from a production standpoint for a single firm to produce all the output in an industry. In such a market there is a theoretical conflict between the free market—where output is produced by a single supplier—and allocative efficiency. Allocative efficiency occurs when the market-wide output equilibrates the marginal revenue associated with the sale of an additional unit of output with the marginal cost of producing it. In a competitive industry in which sellers are price-takers, the marginal revenue is simply the market-clearing price. When a market is characterized by having only a single seller, the seller decides to produce a quantity that equilibrates marginal revenue and marginal cost. The difference is that a monopoly firm is not a price-taker; the marginal revenue of producing an additional unit is not simply the market price. Assuming the monopolist faces a downward-sloping demand curve and cannot price discriminate, producing an additional unit forces the monopolist to lower his price, and he must accordingly lower the price he charges for all units of output. For this reason, the slope of the monopolist’s marginal revenue curve is steeper than the monopolist’s demand curve, and equilibrating marginal revenue and marginal cost results in the monopolist producing a lower output than under competitive conditions, which is properly viewed as a misallocation of societal resources. Under natural monopoly conditions, however, economies of scale are such that it is efficient from a production standpoint for a single seller to produce all the output in an industry. When this occurs, there is an economic basis for government regulation to resolve the conflict between the allocative inefficiencies associated with monopoly pricing on the one hand, and the productive efficiencies associated with a natural monopoly cost structure on the other. Regulation in this context often involves price oversight and entry regulation by a government body designed to resolve the monopolist’s incentive to raise price above the socially optimal level. Indeed, this mode of analysis was used to justify much of the rate regulation in the electric power industry.

A second category of market failure, related to natural monopoly, is the more general phenomenon of monopoly power. Firms can acquire monopoly power without natural monopoly conditions in some circumstances. Although a firm’s acquisition of monopoly power and corresponding enjoyment of monopoly profits is often temporary because new firms enter the market over time reducing the incumbent’s power, economic welfare nevertheless suffers when a firm or firms exercise market power and increase the market price beyond what would obtain in a competitive market. Multiple firms may collude to exercise market power; or in some cases, a single firm might do so unilaterally. Government action and imposition of regulatory barriers to entry are also an important source of market power.7 For example, state and local governments often impose restrictions to exclude new competitors, like UBER in the taxi market or state laws preventing the interstate shipment of wine.8 Antitrust law prohibits the unlawful acquisition of market power that harms consumers.

The third type of market in which regulation may be necessary is a market plagued by externalities. An externality occurs when the parties to a market transaction do not internalize all the costs and benefits associated with their transaction. In other words, an externality occurs when the activities of one party impose uncompensated benefits or costs on other parties. When negative externalities are present, a free market results in too much production. When positive externalities are present, a free market results in too little production. When we think of externalities we typically think of negative externalities such as pollution, but it is important to remember that positive externalities exist as well. A good example is education. A teacher and a student, the seller and the buyer in the market for education, both benefit when a student buys education from the teacher. However, society at large benefits from a more educated populace and those benefits are difficult to capture in a private market exchange between teacher and student. Accordingly, there is some rational economic basis for government intervention to encourage more education transactions between teachers and students. Some markets that feature externalities might require taxes or subsidies to induce parties to internalize costs or benefits imposed on society from their activities. Of course, externalities are ubiquitous in the modern economy. Most do not require any sort of regulation at all because private actors can internalize the externalities at relatively low cost.7

The fourth category involves market failures associated with the market for information. For example, market failures might arise because sellers have more information than buyers.9 The efficient level of information is not necessarily perfect or “total” information because information is costly to supply. In markets for goods and services, failures associated with inadequate or asymmetric information are often handled without government intervention—for example, through firms’ strategies to credibly signal information to consumers, the rise of review sites that collect information about the quality of goods and services firms provide (think Yelp or Angie’s List), and firms’ own investments in reputation. Consumer protection law also prohibits deceptive statements and omissions that induce transactions that would not have occurred in the absence of market failure.

IV. NET NEUTRALITY AND THE ECONOMIC THEORY OF REGULATION

Against this backdrop, the natural question is: where does the market for broadband internet access fit into the economic theory of regulation, broadly defined? What market failure, if any, is the FCC trying to solve with net neutrality regulations? Statements from the FCC Chairman are of little help. In a recent article, Chairman Wheeler said that net neutrality regulations are necessary “to preserve the internet as an open platform for innovation and free expression.” It is hard to glean from this statement exactly what economic forces are at work today in the broadband market preventing the internet from being an open platform for innovation and free expression.
The Chairman also says “the fundamental problem [is] with allowing networks to act as gatekeepers.”9 The word “gatekeeper” could have some relevant economic meaning. It is important, however, to pin down exactly what we think the Chairman means by the term. There are gatekeepers everywhere. McDonald’s is the gatekeeper of Coca-Cola beverages sold inside McDonald’s restaurants. Starbucks is the gatekeeper to my morning cup of coffee and the supermarket is the gatekeeper to your access to Cheerios breakfast cereal in the supermarket aisle.10 A gatekeeper becomes an economic problem potentially worthy of regulation only when the gatekeeper stands between consumers and the only source of a desirable good or service. If consumers are able to get Coca-Cola or other similar beverages from sources other than McDonald’s, then McDonald’s will be unable to manipulate consumers’ access to Coca-Cola in a way that makes consumers worse off because if it does, consumers are able to buy Coca-Cola from other sources. In short, it is competition that ensures that firms supply consumers access to the goods or services they want.

In other words, the “gatekeeper” issue identified by Chairman Wheeler is a problem worthy of regulation only insofar as the broadband industry is a natural monopoly or otherwise exhibits meaningful monopoly power—that is, the power to artificially increase market prices and decrease market output. The simple fact that there are multiple suppliers of both wired and wireless broadband internet renders this justification of regulation totally unpersuasive.11 As I will explain a bit later, we have a legal regime specifically designed to address those sorts of problems: antitrust law. My point at this time is simply that the “gatekeeper” justification for broad-sweeping net neutrality regulation cannot possibly justify those regulations because no broadband provider can be viewed as a gatekeeper to anything when there is viable competition from other broadband providers.

Being charitable to Chairman Wheeler, it could be that the desire “to preserve the internet as an open platform for innovation and free expression” reflects a concern about externalities rather than natural monopoly or monopoly power more generally.12 Indeed, Chairman Wheeler has touted that the latest net neutrality regulation will “ban paid prioritization, and the blocking and throttling of lawful content and services.”13 Perhaps the concern is that the broadband provider and the content provider do not internalize all the costs associated with a contractual arrangement through which the content provider pays the broadband provider for priority use of the network. The argument would seem to be that there is some social interest in egalitarian access to all broadband providers’ networks—in effect a one-size-fits-all contract between broadband providers and content providers—and that we cannot trust the marketplace to reach this outcome without regulatory intervention.

An argument that the broadband market ought to be regulated because of externalities not captured in the bargains between broadband providers and content companies may be economically coherent, but it lacks any basis in fact. At this point, the problems associated with giving certain content providers preferential access to the network—and by extension providing certain content providers with degraded access—are purely theoretical. And as I will explain, both economic theory and empirical evidence give substantial reason to believe that restrained distribution arrangements between broadband providers and content providers are actually more likely to result in efficient outcomes for consumers. Furthermore, even if there is some evidence of an externality problem with contracts providing for priority access to certain content providers—and I have not seen such evidence—the FCC has numerous regulatory options to address the problem short of outright prohibition. Indeed, the EPA does not ban coal production notwithstanding the fact that we have much stronger evidence supporting the conclusion that an unfettered market for coal production results in pollution externalities.

V. NET NEUTRALITY AND VERTICAL RESTRAINTS

I would now like to transition from discussing net neutrality in the context of the economics of regulatory policy writ large to discussing net neutrality in the context of the economics of vertical restraints. Broadband providers and content providers occupy different positions in the supply chain. The Netflix customer needs both content—supplied through Netflix—and broadband access—supplied through one of any number of broadband providers—in order to enjoy Netflix’s video streaming product. An arrangement between Netflix and one broadband provider that ensures a certain level of speed for customers using the broadband provider’s network to access Netflix is simply a vertical contractual arrangement between two entities operating as two links in the same supply chain. The world is full of these vertical contracts in all sorts of different industries. And industrial organization economists have been studying these types of contractual arrangements for decades, so we know quite a bit about their marketplace effects generally.

Although it is well-accepted that vertical contracts occasionally can lead to anticompetitive foreclosure under certain specific conditions,14 it is equally clear and has long been understood that such arrangements often are part of the regular competitive process and can generate significant efficiencies that enhance consumer welfare.15 For instance, such arrangements can create efficiencies by reducing double marginalization, preventing free riding on manufacturer-supplied investments, and aligning incentives of manufacturers and distributors.16 In fact, vertical contracts are frequently observed between firms lacking any meaningful market power, implying that there must be efficiency justifications for these practices. These efficiencies are at least partially passed on to consumers in the form of lower prices, increased output, higher quality, and greater innovation. In other words, the monopoly explanation—that a monopolist uses vertical contracts to foreclose rivals from access to a critical input or a critical set of customers thereby raising the rivals’ costs17—cannot be the reason for most instances of these types of contracts.

Indeed, there is considerable empirical evidence that strongly supports the view that vertical contracts are more often than not procompetitive. I have summarized this body of literature elsewhere18 and will not do so again now, but as one
Until November 2015, when the FCC Chairman is seeking to ban vertical restraints not unlike Chairman Wheeler’s proposed categorical prohibitions of the sort embraced by net neutrality proponents.22

My view is that antitrust’s rule of reason is far more likely to maximize consumer welfare in the broadband industry than Chairman Wheeler’s proposed ban. Any legal framework that seeks to maximize consumer welfare must take three factors into account. First, the framework must assess the probability that the challenged business arrangement is anticompetitive. Second, any framework must assess the probability that its application will result in errors, either false positives in which arrangements that benefit consumers are prohibited or false negatives in which arrangements that harm consumers are allowed. Third, the framework must acknowledge the administrative costs of implementing the system.23 A rule that focuses upon minimizing the social costs of false positives, false negatives, and administrative costs is most likely to generate the highest rate of return for consumers.

Under Chairman Wheeler’s proposed categorical prohibition, there will be no false negatives, only false positives. Instances of procompetitive conduct will be erroneously condemned unless you think the empirical research on the effects of vertical restraints is all wrong, at least as applied to the broadband industry. It is true that the rule of reason is probably more costly to administer in the individual case than Chairman Wheeler’s proposed blanket prohibition, but the administrative cost the FCC incurs in developing, defining, defending, and re-defining whatever net neutrality order it ultimately adopts that gets upheld by a court is not trivial either.

Although the affirmative case for antitrust over net neutrality is clear on consumer welfare grounds, net neutral-
ity proponents often assert that because antitrust might not "work" in all cases—that is the rule of reason might allow some vertical contracts that do in fact harm consumers—a blanket prohibition against all priority contracts is superior. This argument rejects a consumer-welfare based approach to regulation altogether by assuming—contrary to all available theory, evidence, and experience—that every instance of conduct prohibited by the FCC's plan will be harmful. The argument also seems to suggest that there is some category of harm to consumers that falls outside of the dimensions cognizable within antitrust and consumer protection law—price, output, quality, and innovation—that is both ubiquitous enough to justify categorical prohibition but also only observable to the FCC. That should be enough make any student of regulatory law or economics nervous. I am quite confident that the antitrust regime, after more than a century of developing expertise in applying the rule of reason, will be able to apply it to the broadband industry.

VII. Conclusion

Before we decide how best to regulate the broadband industry, we must grapple with the antecedent questions of whether and why broadband is an industry that even needs regulating. Too often the debate over net neutrality is about the particulars of the FCC's latest proposed regulation and not about the characteristics of the broadband market that justify regulatory intervention in the first place. I hope I have made the case that proponents of net neutrality—the FCC Chairman in particular—have not carried their burden to explain exactly why the broadband industry requires such a tight regulatory regime.

Before I conclude today, I would like to leave you with an example of hospitable regulation in another industry—an industry in which the case for regulation generally is far stronger than in the broadband industry. Those of you who are local will no doubt be familiar with congestion pricing on Interstate 495, the Capital Beltway. Until just a few years ago, all drivers had equal—"non-discriminatory" in the parlance of the FCC's Chairman—access to Beltway in Virginia. Now certain lanes on the Beltway in Virginia are "toll lanes," with the toll to be paid based upon the time of day and the level of congestion. Although at this point it is probably too early to say whether the toll lanes on the Beltway have improved traffic conditions in Virginia, my own experience suggests that it has, though your mileage may vary, literally. In any event, it is noteworthy that the Virginia Department of Transportation is exploring whether to expand the toll program to other highways in the state.

The case for regulation in what I will call the "road" industry is far stronger than it is in the broadband industry. The industry exhibits natural monopoly characteristics—most roads are actually built by the state—and there are obvious negative externalities associated with the use of roads in terms of both traffic and pollution. Yet regulators in this industry, at least in Virginia, are experimenting with new approaches that allow some customers to pay for priority to see if consumers can be made better off. In the broadband industry, the FCC, by contrast, is seeking categorically to prohibit paid prioritization. When the FCC regulates the broadband industry more tightly than Virginia regulates its highways, there is something amiss with the regulatory process. One might even call the FCC's approach "over the top."

Thank you for your time.

Endnotes


7 See Dave D. Haddock, Irrelevant Externality Angst, 19 J. INTERDISC. Econ. 3 (2007).


9 Wheeler, supra note 4.

10 Verizon, 740 F.3d at 663-64 (Silberman, J., dissenting) (Noting that “all retail stores, for instance, are ‘gatekeepers.’ The term is thus meaningful only insofar as the gatekeeper by means of a powerful economic position vis-a-vis consumers gains leverage over suppliers.”).

11 See id. at 662-667 (Silberman, J., dissenting) (explaining that the FCC failed to undertake analysis of whether broadband providers had market power in individual markets and noting that “[t]he Commission apparently wanted to avoid a disciplined inquiry focused on market power.”).

12 See Timothy J. Brennan, Network Neutrality or Minimum Quality? Barking Up the Wrong Tree— and Finding the Right One, CPI CHRONICLE (Mar. 2012) (“The relevant market failure is not insufficient competition but failure to recognize the network externality in the broadband environment: the value of internet access to a content supplier depends upon its viewers’ ability to access links in its content. This market failure does not justify full net neutrality, in particular a non-discrimination rule. It does suggest a minimum quality standard . . . .”).

13 Wheeler, supra note 4.


20 See Krattenmaker & Salop, supra note 15.


22 See GTE Sylvania, 443 U.S. 36.