TESTING THE BOUNDS OF NET NEUTRALITY WITH ZERO-RATING PRACTICES

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Sixty-seven percent of adults globally have access to the Internet today.[1] That statistic, however, hides a wide degree of variation. For example, ninety-four percent of adults in South Korea have internet access while only eight percent of Ethiopians do.[2] In developing countries, several internet content providers have partnered with mobile carriers to provide limited internet access free of mobile data charges, a practice commonly known as zero rating. For example, the Wikimedia Foundation has partnered with sixty-eight mobile carriers to make Wikipedia available free of data charges in fifty-two countries;[3] Facebook offers data-free access to a walled-off version of the Internet, including Facebook's own website, in fifty-three countries and municipalities through its Free Basics program;[4] and both Google and Twitter have engaged in similar partnerships for Gmail and Twitter.[5]

Although internet access among adults in the United States is relatively high, with an estimated 84 percent of adults using the Internet, disparities persist along lines of age, class, race, and community.[6] In an effort to compete and expand their consumer base, mobile carriers in the United States are experimenting with their own forms of zero rating by offering

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1. Jacob Poushter, *Smartphone Ownership and Internet Usage Continues to Climb in Emerging Economies*, PEW RESEARCH CTR. (Feb. 22, 2016), http://www.pewglobal.org/2016/02/22/internet-access-growing-worldwide-but-remains-higher-in-advanced-economies/ [https://perma.cc/AM36-E9UJ].

2. *Id.*

3. *Wikipedia Zero*, WIKIMEDIA FOUND., https://wikimediafoundation.org/wiki/Wikipedia_Zero (last updated Oct. 20, 2016) [https://perma.cc/3DPT-NAKQ].

4. Josh Constine, *Facebook and 6 Phone Companies Launch Internet.org to Bring Affordable Access to Everyone*, TECHCRUNCH (Aug. 20, 2013), https://techcrunch.com/2013/08/20/facebook-internet-org/ [https://perma.cc/5DPY-3KT3]; *Where We've Launched*, INTERNET.ORG, [https://perma.cc/992W-BGGF].

5. Constine, *supra* note 4.

6. Andrew Perrin & Maeve Duggan, *Americans' Internet Access: 2000–2015*, PEW RESEARCH CTR. (June 26, 2015), http://www.pewinternet.org/2015/06/26/americans-internet-access-2000-2015/ [https://perma.cc/EBX7-WEK7].

tiered pricing plans that exempt certain content from data caps or charges. For example, T-Mobile offers unlimited video and music streaming from over one hundred applications (apps) with its Binge On and Music Freedom programs,[7] whereas Sprint's Virgin Mobile and Boost Mobile prepaid brands offer a more limited selection of exempted apps at a slightly lower price point.[8] Although many consumers of wired internet services have not been subject to data caps in the past, there appears to be a new push to implement or enforce them.[9] Comcast, for example, is rolling out monthly caps of one terabyte (TB), while also zero rating its own television streaming service.[10]

For governments trying to expand internet access while pursuing other policy goals, such as maintaining competitive markets, the question of whether and how to regulate internet service provision is key and one that has been hotly debated over the past several years. The practice of zero rating in particular has been lauded as pro-consumer by some and demonized as market distorting by others.[11] A few jurisdictions around the

7. Press Release, T-Mobile, Now, More than 100 Services Stream Free with T-Mobile's Binge On and Music Freedom (Apr. 5, 2016), https://newsroom.t-mobile.com/news-and-blogs/binge-on-music-freedom-new-services.htm [https://perma.cc/U7L3-4TEC] [hereinafter T-Mobile Service Offers].

8. *See* Press Release, Boost Mobile, Boost Mobile Adds Unlimited Music Streaming (Dec. 9, 2015), http://newsroom.boostmobile.com/press-release/products-offers/boost-mobile-adds-unlimited-music-streaming [https://perma.cc/5UCQ-A5NY]; *Individual Plans*, T-MOBILE, [https://perma.cc/H6NW-7X4Q]; T-Mobile Service Offers, *supra* note 7; Press Release, Virgin Mobile, Virgin Mobile USA Adds Unlimited Music and More Data (Oct. 7, 2015), http://newsroom.virginmobileusa.com/press-release/virgin-mobile-usa-adds-unlimited-music-and-more-data [https://perma.cc/P2K3-ZWEZ].

9. *See* Kate Cox, *Cable Exec: Data Caps for All Are Inevitable, "It's Not If . . . but When and How,"* CONSUMERIST (Dec. 6, 2016, 1:28 PM), https://consumerist.com/2016/12/06/cable-exec-data-caps-for-all-are-inevitable-its-not-if-but-when-and-how/ [https://perma.cc/AYA2-L6N8]; Thomas Gryta & Shalini Ramachandran, *Broadband Data Caps Pressure 'Cord Cutters,'* WALL STREET J. (Apr. 21, 2016, 12:57 PM), http://www.wsj.com/articles/broadband-data-caps-pressure-cord-cutters-1461257846 [https://perma.cc/M4AM-SL9C].

10. *See supra* note 9; Jon Brodkin, *Comcast Launches Streaming TV Service that Doesn't Count Against Data Caps*, ARS TECHNICA (Nov. 19, 2015, 8:33 AM), http://arstechnica.com/business/2015/11/comcast-launches-online-tv-service-that-doesnt-count-against-data-caps/ [https://perma.cc/M4KF-HQM4].

11. *See, e.g.*, WILLIAM P. ROGERSON, THE ECONOMICS OF DATA CAPS AND FREE DATA SERVICES IN MOBILE BROADBAND (Aug. 17, 2016), http://www.ctia.org/docs/default-source/default-document-library/081716-rogerson-free-data-white-paper.pdf [https://perma.cc/M4CQ-DGGT]; Jeremey Malcolm et. al., *Zero Rating: What It Is and Why You Should Care*, ELEC. FRONTIER FOUND. (Feb. 18, 2016), https://www.eff.org/deeplinks/2016/02/zero-rating-what-it-is-why-you-should-care [https://perma.cc/U894-3UBH].

world have banned the practice, such as India, the Netherlands, Chile, and Japan, while others, including the United States, have opted for a wait-and-see approach.[12]

In 2015 when the U.S. Federal Communications Commission (FCC) implemented "net neutrality" rules prohibiting broadband internet access service providers from discriminating among types of internet traffic, it explicitly chose not to ban zero rating because it found that the potential for consumer harm or benefit was not yet clear.[13] The FCC instead chose to assess zero rating on a case-by-case basis under a general conduct rule that prohibits unreasonable interference with end users' ability to select content and content providers' ability to reach end users.[14] In the last days of the Obama administration, FCC Wireless Telecommunications Bureau (WTB) issued a report criticizing select zero-rating practices and offered insight into its interpretation of the general conduct rule.[15] However, the newly appointed Chairman of the FCC under President Trump, Ajit Pai, quickly made clear that the report did not reflect his views on the matter and the report was subsequently rescinded.[16] The question of if and how net neutrality will apply to zero rating remains to be answered.

This Note examines several models of zero rating that companies in the United States have engaged in and analyzes the application of the current net neutrality rules in light of the ongoing debate as to their potential for harm or consumer benefit. It critiques one of the main justifications behind the net neutrality rules, namely that every broadband provider is capable of

12. *See* Karl Bode, *India Bans Zero Rating as the U.S. Pays the Price for Embracing It*, TECHDIRT (Feb. 8, 2016, 9:34 AM), https://www.techdirt.com/blog/netneutrality/articles/20160208/06220233547/india-bans-zero-rating-as-us-pays-price-embracing-it.shtml [https://perma.cc/JST5-YGNK].

13. *See* Protecting and Promoting the Open Internet, 30 FCC Rcd. 5601, 5666–68 paras. 151–52 (2015) (codified at 47 C.F.R. §§ 1, 8, 20 (2015)) [hereinafter 2015 Open Internet Order], *aff'd*, U.S. Telecomm. Ass'n v. FCC, 825 F.3d 674 (D.C. Cir. 2016). Broadband internet access service (broadband) is defined as a mass-market retail service by wire or radio capable of transmitting data from substantially all internet endpoints. 47 C.F.R. § 8.2(a) (2015).

14. 2015 Open Internet Order, *supra* note 13, at 5666–69 paras. 151–53.

15. *See* FCC, Wireless Telecommunications Bureau Report: Policy Review of Mobile Broadband Operators' Sponsored Data Offerings for Zero-Rated Content and Services (Jan. 11, 2017), https://apps.fcc.gov/edocs_public/attachmatch/DOC-342987A1.pdf [https://perma.cc/KCH2-HV7G] [hereinafter WTB Zero rating Report].

16. *See* Press Release, Ajit Pai, Commissioner, FCC, On the FCC's Midnight Regulation of Free Data (Jan. 11, 2017), http://transition.fcc.gov/Daily_Releases/Daily_Business/2017/db0111/DOC-342990A1.pdf [https://perma.cc/UY2S-CK45]; John Eggerton, *FCC's Wireless Bureau Dumps Zero-Rating Report*, BROAD. & CABLE (Feb. 3, 2017, 02:32 PM), http://www.broadcastingcable.com/news/washington/fccs-wireless-bureau-dumps-zero-rating-report/163063 [https://perma.cc/6SYA-F3DP].

distorting competition through the exercise of a form of monopoly power know as gatekeeper power. Finally, it argues that the interpretation of the general conduct rule in the now rescinded WTB report prematurely assumed harm and would invite the kind of stringent regulations feared by net neutrality opponents.

In Part I, this Note discusses the development of and rationale behind the FCC's net neutrality rules. Part II examines several models of zero rating implemented by broadband providers in the United States. Part III considers various arguments as to how current net neutrality rules might apply to the practice of zero rating. Part IV critiques the FCC's claim that broadband providers inherently exercise a form of monopoly power drawing on principles developed in antitrust law. Finally, Part V concludes, recommending that any enforcement of net neutrality rules against zero rating should require a rigorous analysis of market power and harm in line with antitrust doctrine in order to avoid overly inclusive per se bans.

I. HISTORY OF THE FCC AND NET NEUTRALITY

In 2015 the FCC adopted a series of rules enforcing a concept known as net neutrality.[17] These rules prohibit broadband providers, who serve as gatekeepers between internet end users and providers of internet content, applications, and services (edge providers) from discriminating against internet traffic on the basis of its source.[18] Proponents of net neutrality argue that broadband provides a platform for competition among edge providers and that a neutral platform allows for healthy competition with meritocratic results.[19] The FCC further contends that net neutrality promotes a "virtuous cycle," in which innovation by edge providers increases end-user demand for internet access that in turn drives investment in broadband infrastructure.[20] The rationale for government intervention in this market reflects the rationale behind the creation of the FCC itself. This Part highlights the history of FCC regulation in the communications sector and the various attempts by the FCC to apply its authority over broadband provision.

17. *See* 2015 Open Internet Order, *supra* note 13.

18. *See* U.S. Telecomm. Ass'n v. FCC, 825 F.3d. 674, 690 (D.C. Cir. 2016).

19. *See* Tim Wu, *Network Neutrality, Broadband Discrimination*, 2 J. ON TELECOMM. & HIGH TECH. L. 141, 145–47 (2003).

20. *See* 2015 Open Internet Order, *supra* note 13, at 5604 para. 7.

A. THE FEDERAL COMMUNICATIONS COMMISSION AND NATURAL MONOPOLIES

Congress established the FCC with the 1934 Communications Act for "the purpose of regulating interstate and foreign commerce in communication by wire and radio so as to make available . . . to all the people of the United States . . . wire and radio communication service."[21] The government viewed communication as a utility service,[22] and regulation was seen as necessary to "ensure an adequate communications system" for the country.[23] Today the FCC regulates communications by radio, television, wire, satellite, cable, and internet access.[24] Telecommunications services, such as telephone service, are considered "common carriers" governed by Title II of the 1934 Act.[25] Common carrier status allows the FCC to regulate a privately provided service as a public utility to ensure access to that "essential" service.[26]

The justification for such regulation traditionally rested on the theory that telecommunications services were natural monopolies. Natural monopolies in this sector are characterized by high fixed costs, decreasing marginal costs, and network effects that create barriers to entry for competitors.[27] For example, telephone service provision requires high fixed costs to build out the network, but the marginal costs of providing service decreases for each new unit—household or business—on that network. The first mover to build out a network and capture market share can provide service at a low per unit cost, whereas a new entrant to the market would have to duplicate that network to similarly compete on service and cost. Additionally, each new user increases the value of the entire network—a type of externality known as network effects.[28] Without FCC mandated interconnection requirements, a large incumbent telephone network could

21. 47 U.S.C. § 151 (2012).

22. *See* H.R. Rep. No. 73-1850, at 1 (1934) (quoting President Franklin D. Roosevelt who advocated for the creation of separate commissions to regulate utility services of transportation, power, and communications).

23. *See* S. Rep. No. 73-781, at 3 (1934).

24. *What We Do*, FCC, https://www.fcc.gov/about-fcc/what-we-do [https://perma.cc/9PNL-DKN3].

25. *See* Jonathan E. Nuechterlein & Philip J. Weiser, Digital Crossroads: Telecommunications Law and Policy in the Internet Age 17 (2d ed. 2013).

26. *Id.* at 33.

27. *See id.* at 3–14; Christopher S. Yoo, *Would Mandating Broadband Network Neutrality Help or Hurt Competition?*, 3 J. TELECOMM. & HIGH TECH. L. 23, 60–65 (2004).

28. *See* Yoo, *supra* note 27, at 28.

refuse to connect with new entrants pushing most users to choose the larger more valuable network to the exclusion of other networks.[29]

Cable television, regulated under Title VI of the Communications Act,[30] was similarly viewed as a natural monopoly.[31] That idea, however, has been challenged as different technologies capable of delivering video content emerged. For example, television programming can also be delivered over satellite, telephone lines, and via over-the-air broadcasts from television stations.[32] Despite the existence of satellite television in the early 1990s, competition was slow to emerge and there was a great deal of concern over industry concentration and rising cable rates.[33] In response, Congress passed the Cable Television Consumer Protection and Competition Act of 1992.[34] It found that the cable industry was highly concentrated and vertically integrated with the television networks that package content (programmers).[35] Congress concluded that this combination had the potential to block entry of both new television programmers and alternatives to the incumbent cable providers.[36] Proponents of regulation argued that this created a bottleneck in the distribution of television programming in two ways.[37] First, a few dominant cable providers could exert monopsony power over programmers, who require viewer access for revenue, by requiring the programmers deal with them exclusively or offer competitors inferior terms.[38] Second, cable providers with ownership interests in programmers had the incentive and ability to favor their own programming.[39] Likewise, affiliated programmers had the incentive to discriminate against competing

29. *See* Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, 11 FCC Rcd. 15499, 15508 para. 10 (1996) (codified at 47 C.F.R. pt. 1) ("An incumbent LEC also has the ability to act on its incentive to discourage entry and robust competition by not interconnecting its network with the new entrant's network or by insisting on supracompetitive prices or other unreasonable conditions . . . .").

30. *See* 47 U.S.C. § 521 (2012).

31. *See* NUECHTERLEIN & WEISER, *supra* note 25, at 332.

32. *Id.* at 329.

33. *See* H.R. Rep. No. 102-862, at 1–2 (1992) (Conf. Report); Nicholas Allard, *The 1992 Cable Act: Just the Beginning*, 15 HASTINGS COMM. & ENT. L.J. 305, 347–48 (1993).

34. *See* Cable Television Consumer Protection and Competition Act, Pub. L. No. 102-385, 106 Stat. 1460, 1460 (1992) (codified at 47 U.S.C.§§ 521–55 (1994)).

35. *See id.*

36. *See id.*

37. *See* Allard, *supra* note 33, at 312–15.

38. *See id.* Monopsony refers to a market in which there is only a single buyer. *Glossary of Statistical Terms*, OECD, https://stats.oecd.org/glossary/detail.asp?ID=3265 (last updated Mar. 16, 2002) [https://perma.cc/V5QM-VGV3].

39. *See* Allard, *supra* note 33, at 312–15.

television providers.[40] The 1992 Act therefore empowered the FCC to prohibit certain anticompetitive behavior that would prevent cable television competitors from accessing programming.[41]

B. THE REGULATION OF INTERNET SERVICE PROVISION

The provision of broadband internet service is subject to some of the same attributes that led the FCC to regulate telephone service and cable.[42] Today broadband Internet, which is high speed Internet that is always on, is provided using several methods: DSL technology over copper phone lines, cable modem over the coaxial cables that deliver television service, over fiber optic cables where they have been installed, wirelessly via a radio link (including mobile broadband), and satellite.[43] These networks require high fixed costs to build and benefit from decreasing marginal costs for each new user added. They are also relatively concentrated and often vertically integrated with content providers.[44]

The convergence of different technologies delivering broadband made it difficult for the FCC to classify internet service providers (ISPs) as each technology was traditionally regulated under different regimes of the Communications Act. For example, while telephone service is classified as a Title II "telecommunications service," cable falls under an entirely different regime in Title IV.[45] Between the late 1990s and mid-2000s the FCC moved to consolidate the classification of different ISPs as Title I "information services."[46] These are defined as providing the means to generate, manipulate, retrieve, or make available information via telecommunications.[47]

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40. *See id.*

41. *See* NEUCHTERLEIN & WEISER, *supra* note 25, at 343–44 (explaining that for example, 628 (b) of the Communications Act bans vertically integrated cable companies from engaging in "unfair" acts that have the "purpose or effect" of "hinder[ing] significantly" the ability of rival MVPDs [multichannel video programming distributors] to provide competitive video services").

42. In fact, in the FCC looked to studies of market foreclosure by vertically integrated cable providers to justify concerns of potential exclusionary conduct by broadband providers. *See* Preserving the Open Internet, 25 FCC Rcd. 17905, 17918 para. 23, n.60 (2010) [hereinafter 2010 Open Internet Order], *vacated in part*, Verizon v. FCC, 740 F.3d 623 (D.C. Cir. 2014).

43. *See Types of Broadband Connections*, FCC, https://www.fcc.gov/general/types-broadband-connections (last updated June 23, 2014) [https://perma.cc/5N3E-9A57].

44. *See infra* Part IV.

45. See NEUCHTERLEIN & WEISER, *supra* note 25, at 21.

46. U.S. Telecomm. Ass'n v. FCC*,* 825 F.3d 674, 692–93 (D.C. Cir. 2016).

47. *See* 47 U.S.C. § 153(24) (2012).

1. Prior Attempts to Enforce Network Neutrality Largely Failed Due to the FCC's Lack of Statutory Authority

The FCC first stated its interest in preserving and promoting the open nature of the Internet—network neutrality—in a 2005 Internet Policy Statement.[48] In it, the FCC adopted a set of principles declaring that consumers were entitled to access and run internet content, applications, and services of their choosing; to connect devices of their choosing; and to competition among network, application, service, and content providers.[49] In 2008 the FCC attempted to enforce these principles against Comcast, a cable television and broadband provider, for selectively blocking peer-to-peer connections.[50] However, the Court of Appeals for the D.C. Circuit vacated the FCC's ruling on the grounds that the FCC's authority over information services did not extend to such network management practices.[51]

The FCC renewed its attempt to enforce network neutrality with its 2010 Open Internet Order. This time the FCC claimed authority under Section 706 of the 1996 Act, which tasked the FCC with encouraging the deployment of broadband to all Americans.[52] The 2010 Order established three rules: (1) requiring disclosure of network management practices, performance, and commercial terms to consumers; (2) prohibiting the blocking of legal content, applications, services, or devices; and (3) prohibiting unreasonable discrimination against lawful network traffic.[53] In *Verizon v. FCC*, the Court of Appeals for the D.C. Circuit vacated the anti-blocking and unreasonable discrimination rules for imposing per se common carrier obligations on a service not classified as a common carrier.[54] Importantly, however, the court acknowledged that the FCC's justification for such regulation—promoting a virtuous cycle of innovation—was reasonable.[55]

48. Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, 20 FCC Rcd. 14986 (2005) [hereinafter 2005 Internet Policy Statement].
49. *Id.* at 14987–88 para. 4.
50. Comcast Corp. v. FCC, 600 F.3d 642, 644 (D.C. Cir. 2010).
51. *See id*.
52. 2010 Open Internet Order, *supra* note 42, at 17968 para. 171.
53. *See id.* at 17906 para. 1.
54. *See* Verizon v. FCC, 740 F.3d 623, 628 (D.C. Cir. 2014).
55. *Id.*

2. *The 2015 Open Internet Order Successfully Extended the FCC's Authority over Broadband Providers by Reclassifying Them as Common Carriers*

In response to the setbacks delivered by the Comcast and Verizon rulings, the FCC issued a notice of proposed rulemaking in 2014[56] and adopted a second iteration of the Open Internet Order in 2015. This time the FCC reclassified fixed and mobile broadband providers as "telecommunications services" subjecting them to the FCC's direct authority as Title II common carriers.[57]

The 2015 Order imposes three bright line rules and one general conduct rule. The bright-line rules prohibit: (1) blocking access to legal content, applications, services, or non-harmful devices; (2) throttling, or degrading of internet traffic on the basis of content, applications, services, or non-harmful devices; and (3) paid prioritization, favoring some internet traffic over others in exchange for consideration or prioritizing the ISP's own or affiliated content or services.[58] The general conduct rule prohibits conduct that "unreasonably interfere[s] with or unreasonably disadvantage[s] end users' ability to select, access, and use broadband internet . . . or . . . content, applications, services, or devices of their choice, or edge providers' ability to make lawful content, applications, services, or devices available to end users."[59] The commission will evaluate conduct under this rule on an ex post case-by-case basis.[60] The 2015 Order, including the reclassification of broadband as a telecommunications service, was upheld in *U.S. Telecom Association v. FCC* by the Court of Appeals for the D.C. Circuit in June 2016.[61]

II. THE PRACTICE OF ZERO RATING

The practice of zero rating, also known as sponsored data plans, allows broadband providers to specifically exclude certain internet traffic from end users' data allowances.[62] Because many broadband providers limit data, usually on a monthly basis, they can use this practice to improve their service offering or, arguably, to favor their own content. Many mobile data

56. *See* Protecting and Promoting the Open Internet, 29 FCC Rcd. 5561 (2014) (notice of proposed rulemaking).
57. *See* 2015 Open Internet Order, *supra* note 13, at 5614–16 paras. 41–50.
58. Protecting and Promoting the Open Internet, 47 C.F.R. §§ 8.5, 8.7, 8.9 (2015).
59. *Id.* § 8.11.
60. 2015 Open Internet Order, *supra* note 13, at 5659 para. 135, 5706 para. 229.
61. *See* U.S. Telecomm. Ass'n. v. FCC, 825 F.3d 674, 674 (D.C. Cir. 2016).
62. 2015 Open Internet Order, *supra* note 13, at 5666–67 para. 151.

plans come with monthly data caps enforced through overage fees or service degradation.[63] Fixed-wire broadband plans have typically charged tiered pricing based on speed rather than data, which eliminates any benefit from zero rating. However, there may be a move towards adopting data-based pricing plans. For example, Comcast has begun experimenting with terabyte data limits.[64]

The 2015 Open Internet Order does not per se prohibit zero rating. The Commission expressly opted to analyze the practice on a case-by-case basis under the general conduct rule. The ban on paid prioritization and prioritization of affiliated content refers solely to the speed by which content is delivered.[65] Zero-rating practices in the United States can generally be classified into three different models: (i) vertically integrated broadband providers that exempt affiliated content; (ii) broadband providers that exempt third-party sponsored unaffiliated content; and (iii) broadband providers that voluntarily exempt select and general categories of unaffiliated content. Distinctions between these models, as well as between the wired and wireless broadband markets, inform any assessment of consumer or competitive harm.

A. MODEL 1: VERTICALLY INTEGRATED BROADBAND PROVIDER EXEMPTS AFFILIATED CONTENT

The FCC defines an affiliate as one who "owns or controls, is owned or controlled by, or is under common ownership or control, with another [entity]."[66] Examples include:

- *Comcast — Stream TV:* Comcast exempts its own online video service, Stream TV, from the monthly data caps it imposes on a growing number of its wired broadband XFINITY customers.[67]

63. *See e.g., Verizon Plan*, VERIZON, https://www.verizonwireless.com/plans/verizon-plan/ [https://perma.cc/J52H-F3ZM]. Verizon Mobile enforces its various monthly data plans through its "safety mode" feature whereby consumers' data drops to lower speeds once they have reached their monthly limit.

64. *See supra* note 9.

65. The record reflects concern with management practices that would benefit particular content through the creation of fast and slow lanes using techniques such as traffic shaping. *See* 2015 Open Internet Order, *supra* note 13, at 5607–08 paras. 18–19, 5668–69 para. 153.

66. 47 U.S.C. § 153(2) (2012) (stating that to own means to hold an equity interest (or equivalent) greater than 10 percent).

67. *Stream TV FAQs*, COMCAST, https://customer.xfinity.com/help-and-support/cable-tv/stream-faqs/ [https://perma.cc/Q7PP-YUB5]. Comcast claims that Stream TV is delivered over its cable system and not over the internet, although it is only accessible to stream on an internet connected device. *See also* Jeff Fusco, *Comcast May Have Found a*

- *Verizon — Go90:* Verizon Mobile zero rates its own Go90 platform, which offers customers a variety of video programming, including original content and live sports.[68]
- *AT&T — DirecTV:* AT&T, which purchased DirecTV in July of 2015,[69] zero rates DirecTV for mobile customers who subscribe to either DirecTV satellite service or the streaming service, DirecTV Now.[70]

B. MODEL 2: BROADBAND PROVIDER EXEMPTS UNAFFILIATED SPONSORED CONTENT

In this model, a wireless broadband provider sells data to unaffiliated content providers who wish to sponsor it for their end users.

- *Verizon — FreeBee Data:* Verizon Mobile offers unaffiliated edge providers the opportunity to sponsor content, including video clips, audio streaming, and app downloads, for Verizon Mobile subscribers through Verizon's FreeBee program.[71]
- *AT&T — Data Perks:* AT&T Mobile also offers unaffiliated edge providers the opportunity to sponsor their data end users' data.[72]

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*Major Net Neutrality Loophol*e, WIRED (Nov. 20, 2015, 4:33 PM), https://www.wired.com/2015/11/comcast-may-have-found-a-major-net-neutrality-loophole/ [https://perma.cc/C5YP-P6KP].

68. *See* GO90, [https://perma.cc/243W-PJE8].

69. Press Release, AT&T, AT&T Completes Acquisition of DIRECTV (July 24, 2015), http://about.att.com/story/att_completes_acquisition_of_directv.html [https://perma.cc/WX9L-XUG8].

70. Letter from Robert Quinn, Senior Exec. Vice President, External & Legislative Affairs, AT&T Services, Inc., to Jon Wilkins, Chief, Wireless Telecomm. Bureau, FCC 1 (Nov. 21, 2016), https://apps.fcc.gov/edocs_public/attachmatch/DOC-342940A1.pdf [https://perma.cc/BE87-2TEV] [hereinafter AT&T Letter].

71. *See* Letter from Kathleen Grillo, Senior Vice President, Pub. Pol'y and Gov't Affairs, Verizon, to Jon Wilkins, Chief, Wireless Telecomm. Bureau, FCC (Dec. 15, 2016), https://apps.fcc.gov/edocs_public/attachmatch/DOC-342944A1.pdf [https://perma.cc/V6XD-HVBU] [hereinafter Verizon Letter]; *Introducing FreeBee Data*, VERIZON [https://perma.cc/AWA2-Y8SL].

72. AT&T Letter, *supra* note 70, at 2–3; *see also* Press Release, Aquto, Mobile Users Have Access to New Data Perks, Brought to You by AT&T and Aquto (Oct. 26, 2015), http://www.aquto.com/company/press-releases/mobile-users-have-access-new-data-perks-brought-you-att-and-aquto [https://perma.cc/7BZH-3FB6].

C. MODEL 3: BROADBAND PROVIDER VOLUNTARILY EXEMPTS UNAFFILIATED CONTENT

Finally, a wireless broadband provider may voluntarily exempt unaffiliated content from its data caps. This means no payment or other consideration is made in exchange for the content to be zero-rated. This Note assumes the following are examples of voluntary zero rating:

- *T-Mobile — Binge On and Music Freedom:* With Binge On, T-Mobile exempts video streaming applications that meet certain technical requirements from its monthly data caps.[73] Music Freedom does the same for streaming music streaming.[74]
- *T-Mobile — Pokémon Go:* In July 2016 T-Mobile announced that it would exempt Pokémon Go from data limits for a year.[75]
- *Sprint — Data-Free Music:* Sprint's Virgin Mobile and Boost Mobile prepaid brands zero-rate several music streaming apps.[76]

III. ZERO RATING AND THE 2015 OPEN INTERNET ORDER

The FCC adopted the 2015 Open Internet rules to "protect and promote the 'virtuous cycle' that drives innovation and investment on the internet."[77] The record developed by the FCC during the comment period reflects a variety of opinions on whether zero rating disturbs this cycle or promotes it. Some commenters noted that the practice increases consumer choice, lowers cost, and helps edge providers distinguish themselves in the marketplace.[78] Others believe it to be a harmful form of discrimination that gives broadband providers the ability to select winners and losers while

73. BARBARA VAN SCHEWICK, T-MOBILE'S BINGE ON VIOLATES KEY NET NEUTRALITY PRINCIPLES 3 (2016), http://cyberlaw.stanford.edu/downloads/vanSchewick-2016-Binge-On-Report.pdf [https://perma.cc/JV8S-55EL]; *Binge On*, T-MOBILE, https://www.t-mobile.com/offer/binge-on-streaming-video.html [https://perma.cc/6ZZS-CF5T].

74. *See* VAN SCHEWICK, *supra* note 73, at 4; *Music Freedom Streaming*, T-MOBILE, https://support.t-mobile.com/docs/DOC-10969 [https://perma.cc/64TM-H7M3].

75. *See* Press Release, T-Mobile, Pokémon Go Mania Sweeps the Country (July 14, 2016),https://newsroom.t-mobile.com/news-and-blogs/free-pokemon.htm [https://perma.cc/WX7Z-5WEB].

76. *See* Press Release, Boost Mobile, Boost Mobile Adds Unlimited Music Streaming (Dec. 9, 2015, 12:00 PM), http://newsroom.boostmobile.com/press-release/products-offers/boost-mobile-adds-unlimited-music-streaming [https://perma.cc/6SAL-D4Q2]; Press Release, Virgin Mobile, Virgin Mobile USA Adds Unlimited Music and More Data (Oct. 7, 2015, 10:00 AM), http://newsroom.virginmobileusa.com/press-release/virgin-mobile-usa-adds-unlimited-music-and-more-data [https://perma.cc/5CHV-LB52].

77. 2015 Open Internet Order, *supra* note 13, at 5603 para. 2.

78. *See* i*d.* at 5666–67 para. 151.

harming competition and free expression.[79] Organizations such as the Electronic Frontier Foundation and Public Knowledge, scholars like Barbara van Schewick and Susan Crawford of Stanford and Harvard Law Schools, and various companies, including Mozilla and Yelp, have all expressed concern about the practice.[80]

During the final months of the Obama administration the FCC turned its attention to zero rating. In late 2016, the FCC's Wireless Telecommunications Bureau (WTB) publically communicated its concerns with the AT&T and Verizon sponsored data programs.[81] Both companies are vertically integrated wireless broadband providers that zero rate their own affiliated programming and allow unaffiliated content providers to sponsor their end users' data. In January 2017, a week before the inauguration of President Trump, the Bureau released a report on mobile zero-rating practices.[82] The report offered a framework with which to evaluate zero rating and concluded that vertically integrated broadband providers that zero rate affiliated content most likely do so in violation of the general conduct rule.[83]

The FCC, however, abruptly reversed its position following the change in administration. President Trump voiced hostility to net neutrality rules early on,[84] and several advisors on his FCC transition team spoke out against

79. *See id.*

80. *See* VAN SCHEWICK, *supra* note 73; Malcolm et al., *supra* note 11; Petition, Public Knowledge, Petition for the Federal Communications Commission to Enforce Merger Conditions and Its Policies 3–4 (March 2, 2016), https://ecfsapi.fcc.gov/file/60001526812.pdf [https://perma.cc/EH8G-GYAM]; Letter from 18MillionRising.org et al., to Tom Wheeler, Chairman, FCC et al. (May 24, 2016), https://ecfsapi.fcc.gov/file/60002020568.pdf [https://perma.cc/JLB3-FZZK]; Susan Crawford, *The Limits of Net Neutrality*, BACKCHANNEL (Aug. 1, 2016), https://backchannel.com/net-neutrality-is-only-a-start-f2f539dd6e5a [https://perma.cc/J9D5-6JB8].

81. The Bureau first notified AT&T and Verizon of its concerns with their zero-rating practices on November 9, 2016 and December 1, 2016, respectively. *See* Letter from Jon Wilkins, Chief, Wireless Telecomm. Bureau, FCC, to Robert Quinn, Jr., Senior Exec. Vice President, External and Legislative Affairs, AT&T (Nov. 9, 2016), https://apps.fcc.gov/edocs_public/attachmatch/DOC-342939A1.txt [https://perma.cc/375L-4PVL]; Letter from Jon Wilkins, Chief, Wireless Telecomm. Bureau, FCC, to Kathleen Grillo, Senior Vice President & Deputy Gen. Counsel, Pub. Pol'y & Gov't Affairs, Verizon (Dec. 1, 2016), https://apps.fcc.gov/edocs_public/attachmatch/DOC-342943A1.pdf [https://perma.cc/GMJ3-NQBT].

82. *See* FCC ZERO-RATING REPORT, *supra* note 15.

83. *See id.* at 1.

84. *See* Donald Trump (@realDonaldTrump), TWITTER (Nov. 12, 2014, 10:58 AM), https://twitter.com/realdonaldtrump/status/532608358508167168 [https://perma.cc/5JW4-AJYP].

the Open Internet Order and in favor of zero rating.[85] Not surprisingly, Trump appointed a critic of the net neutrality rules, Ajit Pai, as the new Chairman of the FCC.[86] Pai, as a Commissioner, wrote a long dissent to the 2015 Order.[87] Pai quickly rebuked the WTB report on zero rating as a "regulatory spasm"[88] and soon after as Chairman announced that the Bureau had closed its investigation into free-data offerings.[89]

It is unlikely that the FCC will resume any investigation into zero rating under the current administration. In fact, some have speculated that the FCC under Pai may seek to repeal the 2015 Order altogether.[90] Alternatively, a Republican-controlled Congress may seek to overturn the 2015 Order with legislation. For example, Representative Marsha Blackburn (R-TN) has introduced several bills throughout the past decade seeking to strip the FCC of authority over internet provision and to nullify net neutrality rules,[91] while Senator John Thune (R-SD) has advocated for a pared down version

85. Jeffrey Eisenach, Mark Jamison, and Roslyn Layton, all outspoken critics of the FCC's net neutrality rules, were members the Trump transition team. *See* JEFFREY A. EISENACH, NAT'L ECON. RESEARCH CTR., THE ECONOMICS OF ZERO RATING 1 (2015), http://www.nera.com/content/dam/nera/publications/2015/EconomicsofZeroRating.pdf [https://perma.cc/5GLA-AE32]; Jon Brodkin, *Trump's Latest FCC Advisor Opposes Title II, Supports Data Cap Exemptions*, ARS TECHNICA (Nov. 30, 2016, 9:27 AM), http://arstechnica.com/tech-policy/2016/11/trump-appoints-another-net-neutrality-opponent-to-oversee-fcc/ [https://perma.cc/U253-6CJ3].

86. *See Ajit Pai Bio*, FCC, https://www.fcc.gov/about/leadership/ajit-pai [https://perma.cc/BV2Q-64BB]. As of this writing, only three of the five Commissioner positions are filled. President Trump will have the opportunity to nominate two more appointees although only a total of three of the appointees can come from the same party. *See* 47 U.S.C. § 154(a) (2012); *Leadership*, FCC, https://www.fcc.gov/about/leadership [https://perma.cc/U6FD-ZAQB].

87. Ajit Pai, FCC, Dissenting Statement of Commissioner Ajit Pai Re: Protecting and Promoting the Open Internet (2015), https://apps.fcc.gov/edocs_public/attachmatch/FCC-15-24A5.pdf [https://perma.cc/L8B7-BYUN] [hereinafter Pai dissent].

88. Pai, *supra* note 16.

89. *See* Press Release, Ajit Pai, Chairman, FCC, On Free Data Programs (Feb. 3, 2017), http://web.archive.org/web/20170203230709/http://transition.fcc.gov/Daily_Releases/Daily_Business/2017/db0203/DOC-343345A1.pdf [https://perma.cc/5WEX-K3BH].

90. *See, e.g.*, Grant Gross, *Net Neutrality Policy Still up in the Air Under Trump*, PCWORLD, (Feb. 1, 2017, 9:24 AM), http://www.pcworld.com/article/3164257/internet/net-neutrality-policy-still-up-in-the-air-under-trump.html [https://perma.cc/F5KX-73SN]; Letter from Ajit Pai, Commissioner, FCC, and Michael O'Rielly, Commissioner, FCC, to Meredith Attwell Baker, President & CEO, CTIA, et al. (Dec. 19, 2016), https://apps.fcc.gov/edocs_public/attachmatch/DOC-342677A1.pdf [https://perma.cc/3KFP-D5YM].

91. *See* Kerry Sheehan, *Trump and His Advisors on Net Neutrality*, ELEC. FRONTIER FOUND. (Dec. 19, 2016), https://www.eff.org/deeplinks/2016/12/trump-and-his-advisers-net-neutrality [https://perma.cc/FC5Y-U3WM].

of net neutrality rules authorized by new legislation, rather than under Title II.[92]

Despite the bleak outlook for the current net neutrality rules, future administrations or legislation may seek to revive their enforcement. This Part of the Note examines the applicability of the general conduct rule to zero rating, informed by the 2015 Open Internet Order, the now rescinded WTB report, and the public comments of various critics and proponents of the practice.

A. ZERO RATING UNDER THE GENERAL CONDUCT RULE

The general conduct rule is intended to "balance the benefits of innovation against the harm to end users and edge providers."[93] Additionally, it is a means to protect free expression on the Internet, a task given to the FCC by Congress.[94] The rule states the following:

> Any person engaged in the provision of broadband Internet access service, insofar as such person is so engaged, shall not unreasonably interfere with or unreasonably disadvantage end users' ability to select, access, and use broadband Internet access service or the lawful Internet content, applications, services, or devices of their choice, or edge providers' ability to make lawful content, applications, services, or devices available to end users.[95]

The FCC chose to enforce the general conduct rule on a case-by-case basis in light of the "totality of the circumstances."[96] It offered the following non-exhaustive list of factors to guide the rules application: (1) end-user control; (2) competitive effects; (3) consumer protection; (4) effect on innovation, investment, or broadband deployment; (5) free expression; (6) the extent to which it is application agnostic; and (7) a standard practice.[97] The most relevant factors to zero rating are discussed below.

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92. *See* Amir Nasr, *Thune: Net Neutrality Repeal Threat Could Bring Democrats to Compromise*, MORNING CONSULT (Jan. 23, 2017), https://morningconsult.com/2017/01/23/thune-net-neutrality-repeal-threat-bring-democrats-compromise/ [https://perma.cc/K5EP-KVG6].

93. *See* 2015 Open Internet Order, *supra* note 13, at 5659–61 paras. 136–38.

94. *See id.* at 5660 para. 137.

95. Protecting and Promoting the Open Internet, 47 C.F.R. § 8.11 (2015).

96. 2015 Open Internet Order, *supra* note 13, at 5661 para. 138.

97. *See id*. at 5661–64 paras. 139–45.

1. End-user Control and Choice are Negatively Affected if Zero Rating Effectively Pushes Consumers away from Their Preferred Content Providers

The first and sixth factors speak to similar concerns regarding end-user control and choice. The 2015 Open Internet Order posits that practices allowing for end-user control, including choices about which content, applications, services, or devices to use, are consistent with promoting consumer choice and are "less likely to unreasonably interfere with . . . the end user's ability to use the Internet."[98] The WTB report posed three questions to assess this issue: (1) are data caps sufficiently high such that the consumer is not forced to face a real choice between zero-rated and non-zero-rated content; (2) can consumers opt into and out of the zero-rated plan; and (3) can consumers easily switch to alternative ISPs.[99]

Opponents and proponents of zero rating tend to describe end-user control and choice at different levels. Opponents look at the control and choice consumers have within their data plan. This view assumes each individual ISP functions as a gatekeeper with the power to control the flow of data between end users and edge providers, even absent significant power in the broader market for broadband provision.[100] Van Schewick, for example, argues that zero-rated video streaming effectively limits user choice to the particular apps included in the program and pushes users away from other uses of the Internet.[101]

Proponents of zero rating, meanwhile, look more to the control and choice users have between types of data plans and broadband providers. Despite a trend towards concentration over the past decade, four major national mobile wireless providers that compete head-to-head remain in the market: Verizon, AT&T, Sprint, and T-Mobile.[102] Some also argue that allowing for price discrimination based on data consumption helps bring more users online who would find unlimited plans too expensive and benefit

98. *See id.* at 5661–62 para. 139, 5663–64 para. 144.

99. *See* FCC ZERO-RATING REPORT, *supra* note 15, at 4–5.

100. *See id.* at 7; Tejas N. Narechania, *Network Nepotism and the Market for Content Delivery*, 67 STAN. L. REV. ONLINE 27, 29–30 (2014).

101. *See* VAN SCHEWICK, *supra* note 73, at 1.

102. 19TH MOBILE WIRELESS COMPETITION REPORT, 31 FCC Rcd. 10534, 10538–39 para. 7 (2016), https://apps.fcc.gov/edocs_public/attachmatch/DA-16-1061A1_Rcd.pdf [https://perma.cc/K8VF-E92J] [hereinafter WIRELESS COMPETITION REPORT]. Former FCC Chief Economist William Rogerson has argued that high churn rates among mobile providers, or disconnection rates, are indicative of this competition, resulting from various price and non-price promotions as well as low switching costs for end users. ROGERSON, *supra* note 11, at 11–14.

from free data offerings.[103] Competition is admittedly less available in wired broadband. As of 2013 only 37 percent of Americans had access to two or more wired broadband providers offering speeds of twenty-five Mbps or greater.[104]

The WTB did not address the questions it posed regarding end-user control and choice in its report.[105] Assuming broadband providers do exercise gatekeeper power, a view which the FCC adopted in its Open Internet Order,[106] any practice that zero rates a nontrivial amount of data would have the effect of limiting user choice. Under this assumption: Model One vertically integrated broadband providers that zero rate high data consuming video streaming likely alter end-user control and choice; Model Two broadband providers that zero rate unaffiliated but sponsored content likely impact end-user control and choice relative to the amount of data their content consumes with low-data consuming ads and downloads having minimal impact; and Model Three broadband providers that voluntarily exempt unaffiliated content may also impact end-user control and choice as their programs often include high-data consuming video and music streaming apps. Although, this impact may be lessened where their zero-rating programs are open to competing content providers. If one assumes instead that gatekeeper power cannot be exercised except where broadband providers have market power, most of the examples appear less problematic, except perhaps for Model One programs implemented by wired broadband providers, which exist in a much more concentrated market.

2. *Competitive Effects on Non-participating Content Providers Are Harmful Where ISPs Are Able to Effectively Block Access to Subscribers*

This factor looks at how broadband providers could impair the ability for edge providers to reach end users.[107] In particular, it focuses on the

103. *See* Rogerson, *supra* note 11, at 22–25; Multicultural Media Telecomm. & Internet Council, Understanding and Appreciating Zero-Rating: The Use and Impact of Free Data in the Mobile Broadband Sector 9–10 (2016), http://mmtconline.org/WhitePapers/MMTC_Zero_Rating_Impact_on_Consumers_May2016.pdf [https://perma.cc/3FKH-RJE4].

104. DAVID N. BEEDE, U.S. DEP'T OF COMMERCE, ECON. & STATISTICS ADMIN., COMPETITION AMONG U.S. BROADBAND SERVICE PROVIDERS 4 fig. 2 (2014), http://www.esa.doc.gov/sites/default/files/competition-among-us-broadband-service-providers.pdf [https://perma.cc/4WWG-UPA8].

105. *See* FCC ZERO-RATING REPORT, *supra* note 15.

106. *See* 2015 Open Internet Order, *supra* note 13, at 5632 para. 84.

107. *See id.* at 5662 para. 140.

incentives vertically integrated broadband providers would have to disadvantage third parties that compete with their own services.[108] The WTB found that this factor had the most direct bearing on an evaluation of zero-rating practices.[109] The Bureau asked: (1) if the zero-rating program was exclusive, or effectively exclusive, to an affiliated content provider; (2) if it created an exclusionary arrangement with an unaffiliated content provider; and (3) if affiliated and unaffiliated content providers were charged different rates.

Opponents of zero rating argue that the practice allows broadband providers to pick winners, thereby making the non-participating content providers losers. The Electronic Frontier Foundation warns that zero rating consolidates power in broadband providers as gatekeepers, and even where sponsored content is unaffiliated, the zero rating programs may steer content providers to use their technical requirements, essentially seeking permission to innovate.[110] Perhaps the strongest argument against zero rating, however, is that vertically integrated broadband providers have both the *ability* to restrict content providers' access to end users and the *incentive* to do so.[111] Although, under the assumption of gatekeeper power, any broadband provider has the ability to restrict access, if it does not compete downstream in the market for content provision, it would have little incentive to favor particular content providers. A vertically integrated broadband provider, however, has the incentive to use that gatekeeper power to disadvantage its own competitors in the downstream market.[112]

Proponents of zero rating, such as Trump transition team member Jeffrey Eisenach and former FCC Chief Economist William Rogerson, claim that anticompetitive harm is only possible where the broadband provider has significant market power.[113] Where the market is competitive, broadband providers could not effectively foreclose competing content providers from end users.[114] AT&T, in fact, claims that zero rating satellite-based DirecTV enables them to more effectively compete in the television market, which is dominated by incumbent cable providers.[115] Finally, where

108. *See id.*
109. *See* FCC ZERO-RATING REPORT, *supra* note 15, at 10.
110. Malcolm et. al., *supra* note 11.
111. *See* FCC ZERO-RATING REPORT, *supra* note 15, at 16.
112. *See* Narechania, *supra* note 100, at 29–30.
113. *See* EISENACH, *supra* note 85, at 8 (explaining that exclusive arrangements must be sufficiently widespread to effectively foreclose entry by a competitor); ROGERSON, *supra* note 11, at 30.
114. *See* ROGERSON, *supra* note 11, at 27–30.
115. *See* AT&T Letter, *supra* note 70, at 1–2.

content providers cannot afford sponsored data, or choose not to buy it, they can design their offerings to efficiently use the broadband capacity available to the audience they seek.[116]

The WTB report concluded that vertically integrated broadband providers' zero-rating programs were likely to cause anticompetitive harm in violation of the general conduct rule.[117] It specifically criticized AT&T's exemption of DirecTV and Verizon's exemption of its Go90 platform, both Model One programs.[118] Both companies claim to offer sponsored data to competing content providers on equal terms.[119] However, the WTB was skeptical of these claims, stating that the companies offered no supporting evidence.[120] Furthermore, there are no statutory safeguards in place to protect against discrimination, such as a requirement for structural separation of the network service provider and downstream affiliate or cost allocation rules.[121] Although the WTB's report did not cover practices of vertically integrated wired broadband providers, such as Comcast, it can be assumed that the same logic would apply. The WTB's report did not find the zero rating of unaffiliated entities under Models Two and Three, such as AT&T's Data Perks and T-Mobile's Binge On, to be discriminatory.[122]

3. Effect on Innovation, Investment, or Broadband Deployment Is Assumed to be Inherent in the Harms Caused by the Other Factors, but Is Not Well Analyzed as an Independent Factor

The network neutrality rules are rooted in the theory of a "virtuous cycle," in which the growth of infrastructure spurs the growth of internet-based services and apps, which in turn further spurs the growth of infrastructure.[123] Concerns regarding discriminatory conduct should therefore be rooted in its potential to stifle innovation among content providers and investment in broadband infrastructure. The WTB report did not, however, include this factor in its analysis. It assumed harm to innovation via the harm to downstream competitors, but it made no attempt to articulate the type of innovation likely to be harmed or to calculate harm to investment or broadband deployment.

116. *See* ROGERSON, *supra* note 11, at 25.
117. *See* FCC ZERO-RATING REPORT, *supra* note 15, at 17.
118. *See id.* at 12–17.
119. *See* AT&T Letter, *supra* note 70, at 4; Verizon Letter, *supra* note 71, at 1–2.
120. *See* FCC ZERO-RATING REPORT, *supra* note 15, at 12–13, 16.
121. *See id.* at 13–14.
122. *See id.* at 11–12.
123. 2015 Open Internet Order, *supra* note 13, at 5604 para. 7.

B. TAKEAWAYS FROM THE WIRELESS TELECOMMUNICATIONS BUREAU REPORT ON ZERO RATING

The various commentaries, the WTB report, and the ensuing pushback from the new FCC Chairman all provide insight into how the general conduct rule may or may not apply to zero rating in the future. It is clear from the WTB report that competitive effects are viewed as the most important factor and vertical integration as the greatest risk of harm.[124] On the one hand, the report indicates that vertically integrated broadband providers are not completely prohibited from engaging in zero rating, for example, where they zero rate unaffiliated content.[125] However, where a vertically integrated broadband provider zero rates its own content, the WTB believes there is a high likelihood that the general conduct rule is being violated.

To alleviate its concerns, the WTB demands proof of equal terms for affiliated and unaffiliated participants and alludes to the need for additional statutory protections.[126] The effect of such an interpretation is to shift the burden of proof onto vertically integrated broadband providers. Furthermore, these references to heavy handed regulations play into what many critics feared when broadband was reclassified as a Title II common carrier and seem to contradict the Commission's approach of "permission-less innovation."[127] Although the argument that the combination of ability and incentive to disadvantage downstream competitors may be strong, the evidence used to come to that conclusion in the WTB's report is weak. Chairman Pai made clear that this Report will not guide FCC enforcement during his tenure and instead seeks to focus on broadband investment and deployment.[128]

IV. MONOPOLY POWER ASSUMPTIONS AND ANTITRUST LAW

Since the passage of the Sherman Act in the late nineteenth century, antitrust law has been the government's main tool to address

124. *See* FCC ZERO-RATING REPORT, *supra* note 15, at 10, 17.

125. *See id.* at 12 (explaining that, for example, the Bureau did not find AT&T's Data Perks program to run afoul of the general conduct rule as it is mainly used by marketers and advertisers, who have other avenues to reach consumers, and for small amounts of data).

126. *See id.* at 14–17 (discussing safeguards used in other contexts such as cost allocation rules and obligations to offer service on nondiscriminatory terms).

127. *See id.* at 4.

128. *See* Pai, *supra* note 16.; Pai, *supra* note 89.

anticompetitive harm across all sectors of the economy. In general terms, antitrust law outlaws not only collusion among competitors but also illegal maintenance of or attempts to acquire monopoly power through anticompetitive means.[129] In this sense, monopoly power is an assessment of market power. The 2015 Open Internet Order, however, does not claim to assess market power but rather claims to address the gatekeeper power that broadband providers exercise over access to their subscribers. It argues that once an end user selects a particular broadband provider, that provider possesses a monopoly on access to that end user.[130] The court in *Verizon v. FCC*, referred to this as a "terminating monopol[y]."[131] The 2015 Order paints the net neutrality rules as complementary to antitrust enforcement and disclaims any need to assess market power in relation to competing providers.[132] At the same time, the WTB report draws support for its conclusions in antitrust case law that is premised on exactly that finding of market power.[133]

This Part critiques the 2015 Order's claim that all broadband providers, regardless of the competitive market, possess a form of monopoly power and distinguishes the antitrust case law cited in the WTB report from the conclusions of the WTB. It then assesses zero rating in the framework of antitrust law.

A. THE RELATION BETWEEN GATEKEEPER POWER AND MARKET POWER

Gatekeeper power is not wholly distinct from market power as the 2015 Order claims. The FCC's concern lies in the control broadband providers have over access to the Internet and end users. Yet, this control is limited to the extent that end users can choose alternative broadband providers and conversely to the extent that content providers can access end users through alternative broadband providers.

1. The 2015 Order and the 2014 Verizon *Decision on Which the Order Draws Support, Both Allude to Market Power to Bolster Their Findings of Gatekeeper Power*

In the 2014 *Verizon* decision striking down the 2010 Open Internet Order, the majority accepted FCC's contention that broadband providers

129. *See* 15 U.S.C. §§ 1–2 (2012).
130. *See* 2015 Open Internet Order, *supra* note 13, at 5629-5630 para. 80.
131. 740 F.3d 623, 646 (D.C. Cir. 2014).
132. *See* 2015 Open Internet Order, *supra* note 13, at 5606 n.12.
133. FCC ZERO-RATING REPORT, *supra* note 15, at 7.

had the ability to act as gatekeepers. The court reasoned that this power over access to subscribers existed because "all end users generally access the Internet through a single broadband provider."[134] It added that "if end users could immediately respond to any given broadband provider's attempt to impose restrictions on edge providers by switching broadband providers, this gatekeeper power might well disappear."[135] The 2015 Order relied on the same arguments to justify its claim that broadband providers exert gatekeeper power, namely, that consumers access the Internet through a single point and that they do not or cannot respond by switching when restrictions are imposed by their broadband provider.[136] The Order claimed that gatekeeper power could be mitigated if consumers multi-homed, meaning that they bought broadband service from more than one provider.[137] However, it quickly concluded that this is not widely practiced and would impose significant additional costs on end users.[138] The Order also found that gatekeeper power is strengthened by high switching costs that consumers face when seeking a new broadband provider and that high switching costs were "significant factor in enabling the ability of mobile broadband providers to act as gatekeepers."[139] The 2015 Order even cites the *Verizon* court's claim that the "ability [of broadband providers] to impose restrictions on edge providers simply depends on end users not being fully responsive to the imposition of such restrictions."[140]

Claims regarding lack of consumer responsiveness, high costs of multi-homing, and high costs of switching networks inherently allude to market power. In the *Verizon* decision, Judge Silberman, dissenting in part, stated that the terms "gatekeepers" and "terminating monopoly" were "largely invented."[141] Their meaning derives from the leverage "gatekeepers" have over edge providers due to their "powerful economic position vis-à-vis [end users]."[142] Judge Silberman noted that the Commission did not present evidence establishing that all broadband providers possess such economic power against all edge providers.[143] FCC Commissioners, O'Rielly and Pai,

134. *Verizon*, 740 F.3d at 646.
135. *Id.*
136. 2015 Open Internet Order, *supra* note 13, at 5631 para. 81.
137. *Id.* at 5630 para. 80.
138. *Id.*
139. *Id.* at 5631 para. 81, 5640 para. 97.
140. *Id.* at 5633 para. 84.
141. Verizon v. FCC, 740 F.3d 623, 663 (D.C. Cir. 2014) (Silberman, J., concurring in part and dissenting in part).
142. *Id.* at 663–64.
143. *Id.* at 664.

who dissented in the 2015 Open Internet Order, as well as Judge Williams, who dissented in part in the *U.S. Telecom* decision, all critiqued the lack of economic analysis conducted by the FCC.[144] Commissioner O'Rielly called the virtuous cycle "mythical" and claimed the Commission had proven no actual harm to consumers or content providers.[145] Consumers arguably do multi-home. The FCC acknowledges that many consumers subscribe to both mobile and fixed services, yet claims this does not constitute multi-homing as they are distinct product offerings.[146] At the same time, the FCC makes blanket statements about the high switching costs consumers face between broadband providers regardless of any differences in the mobile and fixed marketplaces.[147] To come to these conclusions the FCC relies on the comments received in response to its Notice of Proposed Rule Making and what it argues are low churn rates (that is switching) among mobile providers despite the presence of competition.[148] The FCC does not, however, conduct its own analysis to determine to what extent consumers may or may not view fixed and mobile broadband as a single or separate markets or what effect the presence of competition has on the leverage ISPs can exert over edge providers.

2. *The Antitrust Case Law in Which the WTB Report Claims to Find Support Requires Findings of Market Power.*

The WTB report concluded that zero-rating affiliated content may cause harm by discriminating against non-affiliated edge providers.[149] The WTB opined that these firms could "foreclose[e] their downstream competitors' use of the critical upstream platform inputs . . . in order to enhance their downstream affiliates' competitive position."[150] In support of this conclusion, the report cites several antitrust cases where the government

144. *See generally* U.S. Telecomm. Assoc. v. FCC, 825 F.3d 674, 750 (D.C. Cir. 2016) (Williams, J., concurring in part and dissenting in part); O'Rielly, FCC, Dissenting Statement of Commissioner Re: Protecting and Promoting the Open Internet (2015), https://apps.fcc.gov/edocs_public/attachmatch/FCC-15-24A6.pdf [https://perma.cc/YGD9-5XZW] [hereinafter O'Rielly dissent]; Pai Dissent, *supra* note 87.

145. *See* O'Rielly Dissent, *supra* note 144, at 1. The 2015 Open Internet Order did in fact cite several examples of broadband providers limiting what it described as Internet openness, including the blocking of Voice over Internet Protocol (VOIP) calls by Madison River, a DSL service provider, and interference with peer-to-peer file sharing by Comcast, a cable internet service provider. 2015 Open Internet Order, *supra* note 13, at 5628 para. 79 & n.123 (*citing* 2010 Open Internet Order, *supra* note 42, at 17915–26, paras. 20–37).

146. 2015 Open Internet Order, *supra* note 13, at 5630 n.131.

147. *Id.* at 5630 n.130, 5631 para. 81.

148. *See e.g.*, *id.* at 5641 para. 98.

149. FCC ZERO-RATING REPORT, *supra* note 15, at 17.

150. *Id.* at 6–7.

successfully brought suit against such exclusionary behavior.[151] These cases fall along two related lines of antitrust doctrine: (1) exclusion and foreclosure and (2) essential facilities. Both doctrines unequivocally require market power to demonstrate potential harm.

The terms exclusion and foreclosure both describe conduct intended to keep rivals or potential entrants wholly out of a market or at a disadvantage by excluding them from a needed input.[152] Where the threat of successful exclusion or foreclosure is legitimate, such exclusionary behavior may be unlawful. The Bureau cited several antitrust cases that invoke exclusion and foreclosure arguments. In *United States v. Aluminum Company of America (Alcoa)* from 1945, the Court found that Alcoa, which had 90 percent market share in the sale of aluminum ingot, illegally priced their ingot high while pricing aluminum sheet material low, to the exclusion of downstream competitors in sheet production.[153] More recently in *United States v. Microsoft* in 2001, the D.C. Circuit Court found that Microsoft used its 95 percent market share in operating systems to suppress a nascent threat in cross-platform applications through exclusionary agreements, deceptive practices, and threats.[154] Finally, in both *United States v. AT&T* and *CCIA v. FCC* in 1982, claims that AT&T was able to engage in anticompetitive conduct were premised on AT&T's market power.[155]

The essential facilities doctrine, where invoked, imposes a duty upon a firm to deal with its rivals where that firm exercises monopoly power over a key input that the rivals require to participate in the market.[156] The WTB report cited two cases to support its findings that invoke the essential facilities doctrine. In *United States v. Terminal Railroad Association* from 1912, a group of railroad companies jointly purchased the previously independent terminating facilities that provided access to the sole means of crossing the Mississippi River.[157] The geography of the city of St. Louis made it impossible to even enter the city, let alone pass through, without using one of these terminating facilities and the cost of building additional

151. *See id.* at 6–7 nn.23 & 26. (citing several antitrust cases that address conduct by vertically integrated firms aimed at foreclosing market access to their downstream rivals).

152. *See* Jonathan B. Baker, *Exclusion as a core Competition Concern*, 78 ANTITRUST L.J. No. 3, 527, 527 n.1 (2013).

153. United States v. Aluminum Co. of Am., 148 F.2d 416, 425, 437-38 (2d Cir. 1945).

154. United States v. Microsoft Corp., 253 F.3d 34, 51, 75–77 (D.C. Cir. 2001).

155. *See* U.S. v. Am. Tel. & Tel. Co., 552 F. Supp. 131, 165 (D.D.C. 1982); Comput. & Commc'n Indus. Assoc. v. FCC, 693 F.2d 198, 218 (D.C. Cir. 1982).

156. *See e.g.*, Aspen Skiing Co. v. Aspen Highlands Skiing Corp., 472 U.S. 585, 599, 610–11 (1985).

157. 224 U.S. 383, 391–98 (1912).

railroad bridges was impractical.[158] The Court held the combination of every "essential" connection under the exclusive control of the TRA was a violation of antitrust law and required the TRA to open access to all railroads on equal terms."[159] Following in this line of reasoning, the Court in *Otter Tail Power Co. v. United States* in 1973, held that a power company with exclusive franchisee rights in numerous municipalities illegally suppressed the formation of competing municipal power systems by refusing to sell them wholesale power or transfer power from other sources over its facilities.[160] The market was considered a "natural monopoly" because demand in each municipality did not justify more than one power supplier.[161] The Court concluded that Otter Tail used its "monopoly power" to foreclose competition.[162] In both cases the essential facility was one that could not be reproduced and one over which the defendant had complete control.

B. ZERO RATING UNDER THE FRAMEWORK OF ANTITRUST LAW

With the prospect of the 2015 Open Internet Order being repealed or overturned by legislation, the question of whether and to what extent zero rating causes anticompetitive harm may fall to antitrust law. However, even if the 2015 Order remains in effect, any future attempts to enforce it against the practice of zero rating will surely be countered with an antitrust style analysis disputing market power. In antitrust law, unilateral, that is single firm, exclusionary conduct is enforced under section 2 of the Sherman Act.[163] The Supreme Court has defined a violation of section 2 as "the willful acquisition or maintenance of [monopoly] power as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident."[164] As the D.C. Circuit in *Microsoft* explained, it is not a violation of the law to simply have a monopoly, but rather when one acquires or maintains that monopoly through exclusionary

158. *See id.* at 395, 397-98.
159. *See id.* at 392, 409-412.
160. 410 U.S. 366, 368-69 (1973).
161. *See id.* at 369–70.
162. *Id.* at 377.
163. *See* U.S. Dep't of Justice, Competition and Monopoly: Single-Firm Conduct Under Section 2 of the Sherman Act (2008), http://www.usdoj.gov/atr/public/reports/236681.pdf [hereinafter Single-Firm Conduct Under Section 2 of the Sherman Act], *withdrawn*, Press Release, U.S. Dep't of Justice, Justice Department Withdraws Report on Antitrust Monopoly Law (May 11, 2009), https://www.justice.gov/opa/pr/justice-department-withdraws-report-antitrust-monopoly-law [https://perma.cc/T9ZE-YY7L].
164. United States v. Grinnell Corp., 384 U.S. 563, 570–71 (1966).

conduct.[165] Exclusionary conduct typically either raises rivals' costs (input foreclosure) or reduces rivals' access to end customers (customer foreclosure).[166] Successful claims may demonstrate harm by showing that all significant rivals are in fact foreclosed from the market by the exclusionary act or with a rigorous analysis of the actual or probable effect of the conduct.[167] Identifying the relevant market, known as market definition, contributes to an understanding of who the excluded rivals are, the area of commerce concerned, and helps demonstrate the likelihood of anticompetitive effects through indirect evidence such as market share and concentration.[168] Even where the actual effects of exclusionary behavior have been demonstrated, courts are still likely to require rough market definition and a showing of market share.[169] Here, an analysis of the potential harmful effects of zero rating would look to market definition and either demonstrated market foreclosure by a monopolist or the likelihood of effective market foreclosure by a competitor with market power.

1. Wired and Mobile Broadband Provision Are Likely Considered Distinct Markets, Although the Possibility of Future Convergence Should Not Be Discounted

The FCC recognized mobile and wired broadband as distinct product offerings in both the 2015 Broadband Progress Report and the 2015 Open Internet Order.[170] The 2015 Open Internet Order also incorporated public comments it received from outside groups like Public Knowledge expressing their belief that fixed and mobile broadband were not substitutes.[171] At the same time the FCC declared that the mobile broadband market had matured, leading it to apply the net neutrality rules equally to both wired and mobile.[172] Many consumers rely solely on mobile for

165. United States v. Microsoft Corp., 253 F.3d 34, 58 (D.C. Cir. 2001).

166. Baker, *supra* note 152, at 538 n.54.

167. *See id.* at 548.

168. *See id.*; U.S. DEP'T OF JUSTICE & FED. TRADE COMM'N, HORIZONTAL MERGER GUIDELINES, sec. 4 (2010), https://www.ftc.gov/sites/default/files/attachments/merger-review/100819hmg.pdf [https://perma.cc/YHM9-2NSK].

169. *See* Baker, *supra* note 152, at 545 n.86 (citing Republic Tobacco Co. v. N. Atl. Trading Co., 381 F. 3d 717, 737 (7th Cir. 2004)).

170. Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, 30 FCC Rcd. 1375, para. 120 (2015), https://apps.fcc.gov/edocs_public/attachmatch/FCC-15-10A1.pdf [https://perma.cc/FZM8-6LY2] [hereinafter 2015 Broadband Progress Report]; 2015 Open Internet Order, *supra* note 13, at 5605 para. 9.

171. *See* 2015 Open Internet Order, *supra* note 13, at 5629 n.126.

172. *Id.* at 5635-36 paras. 88-89. (noting increasing data speeds and market penetration by mobile broadband providers).

internet access and mobile content has become critical for many edge providers.[173] Proper market definition would require an inquiry into how users on both sides, that is end users and edge providers, view the substitutability of wired and mobile broadband. This Note assumes the FCC correctly considered them as distinct product markets, with the caveat that as mobile speeds and capacity increase, these markets may converge in the future. Furthermore, even where the product markets are distinct, wired and mobile broadband providers may still exert a degree of competitive pressure on one another.

2. No Broadband Provider Exerts Monopolistic Control over All Means of Access to Consumers Such that the Essential Facilities Doctrine Could Be Invoked.

The essential facilities doctrine rests on the same type of natural monopoly arguments that justify much of FCC regulation.[174] Given the current state of the market, it is unlikely that any one broadband provider could be said to have a monopoly over access to the Internet or access to consumers of the Internet. In *Verizon v. Trinko*, Justice Scalia stated that in order to invoke the essential facilities doctrine, the essential facility must be inaccessible.[175] Therefore, where access exists, the doctrine serves no purpose. Unlike *Terminal Railroad Association* where the defendant exclusively controlled all access to river crossing points, or *Otter Tail*, where the defendant exerted a monopoly over sources and conduits of electric power,[176] no broadband provider exclusively controls all access to the Internet or to end users. Furthermore, no individual broadband provider can exclude any content provider from access to their subscribers due to the ban on blocking. The FCC's gatekeeper power argument seems unlikely to meet the standard set forth by Scalia in *Trinko*.

3. The Likelihood of Effective Market Foreclosure Is Greater in Among Wired Broadband Providers than Wireless Providers.

Exclusionary conduct through vertical arrangements is a concern if it can foreclose competition from actual or potential rivals without any plausible efficiency justifications.[177] To effectively foreclose rivals from the

173. *Id*., at 5636-37 para. 90.
174. *See supra* Sections I.A, IV.A.2.
175. Verizon v. Trinko, LLP., 540 U.S. 398, 410–11 (2004).
176. *See supra* Section IV.A.2.
177. *See* Baker, *supra* note 152, at 548. Efficiency justifications include lowering costs or increasing output. *See* SINGLE-FIRM CONDUCT UNDER SECTION 2 OF THE SHERMAN ACT, *supra* note 163, at 85–86.

market, an excluding firm must (1) identify a practical method of exclusion; (2) exclude rivals sufficient to ensure competition is harmed; and (3) ensure the strategy will be profitable.[178] The WTB report correctly identified that vertically integrated providers that zero rate their affiliated content, the first model of zero rating discussed in Part II, are most likely to engage in such a strategy. However, success in excluding rivals requires some degree of market power, often inferred by the courts from market share.[179] Here, the FCC argues that the gatekeeper power each broadband provider exerts over access to each subscriber constitutes this requisite power without having to analyze the overall market. However, as discussed in Section IV.A.1, the FCC supports this claim with arguments relevant to the competitive landscape of wired and mobile broadband.

It may be most difficult to demonstrate that mobile carriers exercise a terminating monopoly over access to subscribers. Subscribers can and do switch carriers. In 2015 the annual churn rate, the rate of switching carriers, was calculated to be 23.6 percent.[180] Furthermore, the largest mobile wireless provider, Verizon, only has 38 percent market share and competes with the next three largest mobile providers in almost all markets.[181] Wired broadband networks are generally less competitive: 88 percent of Americans have access to at least two providers of wired broadband at speeds of three Mbps or more, 74 percent at speeds of ten Mbps or more, but only 39 percent at speeds of twenty-five Mbps or more.[182] However, as Judge Williams noted in his dissent in *U.S. Telecom Association v. FCC*, an inquiry should be done into competition between wireless and wired broadband.[183] Even where wired broadband competition is limited, so may be the ability of wired broadband providers to effectively foreclose edge providers when an increasing number of Americans use mobile to access the Internet.

This is not to say the conclusions of the WTB report are necessarily wrong and that a more thorough analysis would come to the opposite conclusion. In fact, in 2011 the Department of Justice (DOJ) conditioned its

178. Baker, *supra* note 152, at 562–63.

179. *See supra* Part IV.A.2. Some argue that without market power, discriminatory conduct by vertically integrated entities is more likely to be efficient than anticompetitive. *See e.g.*, Thomas W. Hazlett & Joshua D. Wright, *The Law and Economics of Network Neutrality*, 45 INDIANA L.R. 767, 808 (2012).

180. *See* WIRELESS COMPETITION REPORT, *supra* note 102, at 10546 para. 18.

181. *See id.* at 10548 tbl.II.C.2.

182. *See* 2015 BROADBAND PROGRESS REPORT, *supra* note 170, at 48 chart 2.

183. 825 F.3d 674, 753 (D.C. Cir. 2016) (Williams, J., concurring in part and dissenting in part).

approval of Comcast's joint venture with NBC Universal Inc. on a seven-year agreement to license programming to online competitors of Comcast's cable TV service and to adhere to Open Internet requirements.[184] The DOJ feared that Comcast would have the incentive and ability to harm online video distributors who competed with Comcast's cable TV service by denying them access to NBC's programming.[185] Many would argue, however, that antitrust doctrine does not go far enough to protect consumers, competition, and the open nature of the Internet, instead focusing too much on economic efficiency and price effects and potentially undervaluing other behaviors designed to harm competition.[186] The DOJ, for example, did not impose any conditions on AT&T's acquisition of DirecTV,[187] while the FCC after an analysis of the competitive effects found the need for several remedies, including a ban on discriminatory usage-based allowance practices for its fixed broadband that would favor affiliated online video content.[188]

The WTB report specifically found Verizon's and AT&T's practices of zero rating affiliated content likely to cause anticompetitive harm in violation of the general conduct rule, but their analysis would likely extend broadly to any firm engaged in the first model of zero rating discussed in Part II. Instead of drawing their conclusions based on a thorough analysis of the market, the WTB, in line with the 2015 Open Internet Order, assumes all broadband providers possess equivalent monopolies over access to their subscribers. This assumption, however, can lead to effective bans on otherwise legal firm conduct without evidence of harm or potential harm to the market as exemplified by the finds of the WTB report.

V. CONCLUSION

When the FCC created the net neutrality rules, they intentionally crafted the general conduct rule to allow them to adapt to the evolving practices of

184. Press Release, Dep't of Justice, Justice Department Allows Comcast-NBCU Joint Venture to Proceed with Conditions (Jan. 18, 2011), https://www.justice.gov/opa/pr/justice-department-allows-comcast-nbcu-joint-venture-proceed-conditions [https://perma.cc/2VGM-RWTD].

185. *See* Competitive Impact Statement at 23–27, U.S. v. Comcast Corp., 18 F. Supp. 2d 145 (2011) (No. 11–106).

186. *See e.g.*, Jon Sallet, Antitrust Policy and Communications Regulation: May the Twain Meet, 14 COLO. TECH. L.J. 59, 62 (2015).

187. Press Release, Dep't of Justice, Justice Department Will Not Challenge AT&T's Acquisition of DirecTV (July 21, 2015), https://www.justice.gov/opa/pr/justice-department-will-not-challenge-atts-acquisition-directv [https://perma.cc/83J5-MHN9].

188. Applications of AT&T Inc. and DirecTV For Consent to Assign or Transfer Control of Licenses and Authorizations, 30 FCC Rcd. 9131, 9278 para. 395.

the industry. The 2015 Order provided a list of seven factors to guide the interpretation of the general conduct rule to avoid problems of ambiguity. Prior to the change in administration, zero rating almost became the first test case of their application. Zero-rating practices vary and can be categorized into distinct models. Furthermore, those models operate in the differing competitive landscapes of fixed and mobile broadband markets. The WTB report, which focused almost exclusively on competitive effects in its application of the rule, considered differences in zero-rating practices, but did not consider differences in market competition. The Bureau relied on the theories of the virtuous cycle and gatekeeper power to reach its conclusion condemning the zero rating of affiliated content. However, reliance on these theories without requiring an individualized market analysis, enables the FCC to shift the burden of proof onto broadband providers to demonstrate their compliance with the rule. This is an overly-inclusive fix to a problem that can largely be addressed through the DOJ's and FCC's authority to review mergers. Zero rating is unlikely to cause harm where broadband markets are competitive and a focus on broadband infrastructure investment rather than regulation is likely a better long-term solution for consumer welfare.