ORAL ARGUMENT NOT YET SCHEDULED

Nos. 17-2296, 17-2342, 17-2344, 17-2685

IN THE UNITED STATES COURT OF APPEALS FOR THE EIGHTH CIRCUIT

CITIZENS TELECOMMUNICATIONS COMPANY OF MINNESOTA, LLC, ET AL.,

Petitioners,

v.

FEDERAL COMMUNICATIONS COMMISSION
and UNITED STATES OF AMERICA,

Respondents.

On Petitions for Review of an Order of
the Federal Communications Commission

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CASE SUMMARY AND REQUEST FOR ORAL ARGUMENT

These cases concern the Federal Communications Commission's reasonable decision, following voluminous data collection and 12 years of rulemaking, to rely less frequently on imprecise and costly-to-administer price caps to ensure providers of "business data services," or "BDS," charge just and reasonable rates. Specifically, the FCC used carefully considered benchmarks to identify competitive markets where the costs of ex ante pricing regulation—such as deterring pro-consumer innovation and investment—exceed the benefits. Contrary to the petitioners' contentions, the FCC did not entirely deregulate *any* of the BDS offerings at issue here. Rather, the Commission reasonably predicted that in certain markets, prices could be adequately constrained through a combination of market forces and the agency's customer-initiated "fast-track" complaint process. The FCC's decision, based on careful cost-benefit analysis, to move incrementally from ex ante ratemaking to ex post review of prices was neither arbitrary nor capricious.

Because the subject matter in this case is complex, oral argument may assist the Court. We believe that 20 minutes per side (to be shared by both petitioner groups, on the one hand, and by the respondents and their supporting intervenors, on the other) would be appropriate.

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GLOSSARY

APA	Administrative Procedure Act
BDS	Business data services
CALLS	Coalition for Affordable Local and Long Distance Service
DS1	A legacy TDM service with symmetrical bandwidth of about 1.5 Mbps that can be used for voice and data services
DS3	A legacy TDM service with symmetrical bandwidth of about 45 Mbps that can be used for voice and data services
FCC	Federal Communications Commission
IP	Internet protocol
KLEMS (Broadcasting and Telecommunications)	Capital, labor, energy, materials, and services data for the broadcasting and telecommunications industries prepared by the U.S. Bureau of Labor Statistics
Mbps	Megabits per second
MSA	Metropolitan statistical area
TDM	Time division multiplexing

JURISDICTIONAL STATEMENT

The order under review, *Business Data Services in an Internet Protocol Environment*, 32 FCC Rcd 3459 [ADD-1] (2017) (*Order*),[1] was published in the Federal Register on June 2, 2017. 82 Fed. Reg. 25,660. Petitions for review were timely filed on June 12, 2017 (Nos. 17-2296, 17-2342, and 17-2344), and June 30, 2017 (No. 17-2685) in this and other circuits. The cases were consolidated and assigned to this Circuit by the Judicial Panel on Multidistrict Litigation. This Court's jurisdiction rests on 47 U.S.C. § 402(a) and 28 U.S.C. § 2342(1).

STATEMENT OF THE ISSUES

1. Should interested parties have anticipated the FCC might adopt the rules and policies it did in the *Order* when, in the underlying notice of proposed rulemaking, the Commission proposed to undertake "large-scale deregulation" of business data services (BDS), rely on market forces to the extent possible, and retain tailored ex ante rules only as needed?

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[1] Our citations to the *Order* reference the confidential version submitted under seal by Petitioners Ad Hoc Telecommunications Users Committee et al. and Access Point, Inc. et al., docketed as No. 4583613. We refer to the Ad Hoc and Access Point petitioners, collectively, as the "Purchaser Petitioners." We use "CenturyLink Petitioners" when referring collectively to CenturyLink, Inc. and Citizens Telecommunications Co. of Minnesota, LLC.

Most apposite cases:

- *Agape Church, Inc. v. FCC*, 738 F.3d 397 (D.C. Cir. 2013)
- *Nw. Airlines, Inc. v. Goldschmidt*, 645 F.2d 1309 (8th Cir. 1981)

Most apposite statutory provision:

- 5 U.S.C. § 553(b)(3)

2. Were the regulatory methods the FCC applied to individual forms of BDS—legacy transport, legacy termination, and packet-based services—reasonable and reasonably explained?

Most apposite cases:

- *Ad Hoc Telecommunications Users Comm. v. FCC*, 572 F.3d 903 (D.C. Cir. 2009)
- *Verizon Tel. Cos. v. FCC*, 570 F.3d 294 (D.C. Cir. 2009)
- *WorldCom, Inc. v. FCC*, 238 F.3d 449 (D.C. Cir. 2001)

Most apposite statutory provisions:

- 47 U.S.C. § 201(a)
- 47 U.S.C. § 202(b)
- 47 U.S.C. § 208

3. Did the FCC reasonably decline to extend, for commercial voice platform services, an interim rule governing wholesale access for competitive carriers?

Most apposite cases:

- *Massachusetts v. EPA*, 549 U.S. 497 (2007)
- *Multicultural Media, Telecom and Internet Council v. FCC*, 873 F.3d 932 (D.C. Cir. 2017)

4. In setting the "X-factor"—an annual adjustment mechanism for BDS price caps—at a level well below the top of the range the agency concluded would be reasonable, did the FCC adequately account for claims that the available data concerning productivity growth overestimated growth for the legacy form of BDS that will remain subject to ex ante pricing regulation?

Most apposite cases:

- *Am. Pub. Commc'ns Council v. FCC*, 215 F.3d 51 (D.C. Cir. 2000)
- *FERC v. Elec. Power Supply Ass'n*, 136 S. Ct. 760 (2016)
- *Sw. Bell Tel. Co. v. FCC*, 168 F.3d 1344 (D.C. Cir. 1999)
- *U.S. Tel. Ass'n v. FCC*, 188 F.3d 521 (D.C. Cir. 1999)

PERTINENT STATUTES AND REGULATIONS

Pertinent statutes and regulations are set forth in the statutory addendum bound with this brief.

STATEMENT OF THE CASE

A. BDS Marketplace

BDS offer "the dedicated point-to-point transmission of data at certain guaranteed speeds and service levels using high-capacity connections." *Order* ¶ 6 [ADD-5]. BDS differ from home Internet service in part because of those guarantees; service to most homes is offered on a "best-efforts" basis, with less stringent guarantees of reliability and speed. "Businesses, non-profits, and government institutions" rely on BDS "as a means of connecting to the Internet or the cloud, and to create private or virtual private networks." *Id.*

The market for BDS is complex and "dynamic." *Order* ¶¶ 2, 129 [ADD-3, 61]. Numerous carriers—including not only incumbents (carriers that formerly held regional monopolies) and their "competitive" rivals, but also cable providers—offer BDS using a variety of technologies. *Id.* ¶ 2 [ADD-3].

An older form of BDS uses the same technology developed for the transmission of telephone calls over the public switched telephone network. *Order* ¶ 22 [ADD-12]. That legacy ("time division multiplexing" or "TDM") form of BDS is used to provide both "channel termination services" and "transport services." *Id.* ¶ 77 [ADD-37]. Channel termination services connect customer premises, such as an office building, to incumbent carriers' end offices, *id.*, and are available at a variety of bandwidths (or "speeds"), including lower bandwidth options known as "DS1" and "DS3," *id.* ¶ 22 [ADD-12]. "Transport services are typically higher volume services between points of traffic aggregation," *id.* ¶ 77 [ADD-37], and they "require less investment per unit of traffic than channel terminations," *Business Data Services in an Internet Protocol Environment*, 31 FCC Rcd 4723, 4843 ¶ 281 (JA __) (2016) (*Further Notice*) (internal quotation marks omitted). Transport services may sometimes carry data between incumbent carriers' end offices but are "not exclusively relegated to the carriage of" such traffic. *Business Data Services in an Internet Protocol Environment*, 32 FCC Rcd 5537, 5547 ¶ 26 (JA __) (Wireline Comp. Bur. 2017) (*Stay Denial*) (citing *Order* ¶ 81 n.273 [ADD-39]).

Newer forms of BDS, including the family of data network transmission standards known as "Ethernet," do not rely on legacy TDM-based technology but instead use "packet-based" technology especially suited to the transmission of Internet protocol (IP) data packets. Packet-based BDS are usually provided over fiber facilities and at higher speeds.

See Order ¶ 22 [ADD-12]. Packet-based BDS "are easily scaled . . . to meet increasing data demands," in contrast to legacy BDS, which "do not effectively scale for data intensive applications." *Id.*

B. Evolving Regulatory Treatment of BDS

1. *Governing statutes*

The Communications Act of 1934 (Communications Act or Act), 47 U.S.C. § 151 *et seq.*, imposes various requirements on telecommunications carriers such as providers of BDS. These traditional duties include the requirement that all "charges" and "practices" for telecommunications services "be just and reasonable," 47 U.S.C. § 201(b), and not unreasonably discriminatory, *id.* § 202(a). In addition, under Section 208 of the Act, *id.* § 208, any person or entity may complain to the Commission that a carrier's rates are unjust, unreasonable, or unlawfully discriminatory.[2] Within five months, the agency must then adjudicate "the lawfulness of a charge, classification, regulation, or practice" and can award damages to customers for overcharges. *See id.*

[2] Parties may alternatively bring such challenges in federal district court. 47 U.S.C. § 207.

§§ 208, 209; *Implementation of the Telecommunications Act of 1996*, 12 FCC Rcd 22497, 22511-14 ¶¶ 32-37 (1997).

In 1996, following the breakup of the AT&T monopoly several years earlier, Congress comprehensively amended the Communications Act "to promote competition and reduce regulation" in telecommunications. Telecommunications Act of 1996 (1996 Act), Pub. L. No. 104-104, 110 Stat. 56, 56 (preamble). The 1996 Act contained two provisions relevant to this case.

First, Congress directed the FCC to forbear from the enforcement of any provision of the Communications Act when, in the agency's judgment, (1) the law "is not necessary to ensure" rates and practices "are just and reasonable and are not unjustly or unreasonably discriminatory," (2) the law "is not necessary for the protection of consumers," and (3) "forbearance . . . is consistent with the public interest." 47 U.S.C. § 160.

Second, in Section 706 of the 1996 Act, Congress directed the FCC to "encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans" by using whatever "regulating methods . . . remove barriers to infrastructure investment." 47 U.S.C. § 1302(a). "Congress has [thus] directed the FCC to make the major policy decisions and to select the mix of regulatory and deregulatory tools the Commission deems most appropriate in the public interest to facilitate broadband deployment and competition." *Ad Hoc Telecommunications Users Comm. v. FCC*, 572 F.3d 903, 908 (D.C. Cir. 2009).

2. *Origins of price cap regulation*

Because historically each local telephone company held a monopoly, and so faced little if any competition in providing access to its network, the FCC in years past subjected incumbent carriers' interstate services to ex ante pricing regulation. Before the late 1980s, the Commission used a "rate-of-return" approach, which allowed only "rates no higher than necessary to obtain sufficient revenue to cover their costs and achieve a fair return on equity." *Nat'l Rural Telecom Ass'n v. FCC (NRTA)*, 988 F.2d 174, 178 (D.C. Cir. 1993) (internal quotation marks omitted).

"By the late 1980s, however, the FCC began to take serious note of some of the inefficiencies inherent in rate-of-return regulation." *NRTA*, 988 F.2d at 178. "In 1987, then, the FCC began proceedings to explore price cap regulation as an alternative." *Id.* Under price cap regulation, "the regulator sets a maximum price, and the [regulated] firm selects rates at or below the cap." *Id.* Proponents of price cap regulation believed it offered certain advantages over the rate-of-return approach, such as encouraging innovation to save costs ("[b]ecause cost savings do not trigger reductions in the cap"), reducing incentives for firms to shift costs from unregulated activities into regulated ones, and reducing administrative burdens on the regulator. *Id.*

In practice, "price cap regulation cannot quite live up to its [theoretical] promise." *NRTA*, 988 F.2d at 178. As an initial matter, the agency must "select a formula for the cap" and, because "no such formula can be perfect, . . . must check [periodically] to see whether the cap has gotten out of line with reality." *Id.* "The prospect of that [periodic] overview may dampen firms' cost-cutting zeal." *Id.* Moreover, in the event that regulators set the cap too low, potential new competitive entrants would lack incentives to invest in new networks or facilities—both because they would be less likely to realize a return on their investment and because they could more cheaply purchase services wholesale from an incumbent carrier subject to the cap. *See Order* ¶¶ 92-93, 101, 127 [ADD-43-44, 47, 60]; *id.*, Statement of Chairman Pai 1 [ADD-186].

Nonetheless, "the FCC in 1989 concluded that price cap regulation would on balance be an improvement over rate-of-return in terms of meeting [the agency's] statutory goals." *NRTA*, 988 F.2d at 178. It began by applying price cap regulation only to AT&T, and shortly thereafter applied price caps more widely (on either a mandatory or voluntary basis) to local telephone companies. *See id.* at 178-79.

Despite what the term implies, a "price cap," under the FCC's rules, does not constitute the highest price a regulated carrier may charge. A provider that believes it cannot recover its costs under the price cap may seek to tariff higher rates, so long as the tariff it submits is "accompanied by supporting materials establishing substantial cause for the proposed rates." 47 C.F.R. § 61.49(c).[3] In filing an above-cap tariff, the carrier loses the benefit of a presumption that its tariff is lawful if challenged. *See Order* ¶ 216 & n.568; *Policy and Rules Concerning Rates for Dominant Carriers*, 4 FCC Rcd 2873, 3306 ¶ 895 (1989); *cf.* 47 C.F.R. § 1.773(a)(iv) (providing that within-cap tariff filings are "considered prima facie

[3] Price cap regulation is implemented through tariffs, or "schedule[s] of charges," that carriers file with the Commission. 47 U.S.C. § 203. Parties may challenge a carrier's tariff before it takes effect, and the Commission may suspend the tariff's operation and investigate its lawfulness. *See id.* §§ 204, 205.

lawful"). When the Commission suspends an above-cap tariff before allowing it to take effect, however, the agency must determine the reasonableness of the carrier's proposed rates within five months. *See* 47 U.S.C. § 204(a).

3. ***Pricing flexibility reforms***

In 1999, "[i]n accordance with the stated goals of the 1996 Act" to "promote competition and reduce regulation" and to facilitate "the rapid deployment of new telecommunications technologies," the FCC adopted various reforms to allow price cap-regulated carriers greater pricing flexibility for BDS (then called "special access services"). *WorldCom, Inc. v. FCC*, 238 F.3d 449, 454 (D.C. Cir. 2001) (quoting the preamble to the 1996 Act); *see generally Access Charge Reform*, 14 FCC Rcd 14221 (1999) (*Pricing Flexibility Order*). The agency's "Phase I" reforms allowed price cap carriers to offer individualized and discount agreements based on one set of competitive triggers. *See WorldCom*, 238 F.3d at 455-56. "Phase II" reforms, using other triggers, afforded relief from price cap regulation. *See id.* at 456. Both Phase I and Phase II relief were available, on an ongoing basis, through October 18, 2012. *See Special Access for Price Cap Local Exchange Carriers*, 77 Fed. Reg. 57,504, 57,504 (Sept. 18, 2012).

The Commission also developed experience with the pro-competitive, consumer-enhancing effects of deregulatory actions in other contexts. For example, in 2003, the Commission "exempted next-generation fiber facilities from unbundling and sharing requirements," fostering "increased investment and network deployment by both incumbents LECs and cable companies." *Order* ¶ 5 n.15 [ADD-4]; *id.*, Statement of Chairman Pai 1 [ADD-186].

4. ***Forbearance for packet-based and higher bandwidth BDS***

In addition to granting relief from price cap regulation through its "pricing flexibility" reforms, the Commission beginning in 2006 granted numerous carriers forbearance from tariffing and price cap regulation for packet-based and higher bandwidth BDS. *See Order* ¶ 156 [ADD-72]. In granting that forbearance under Section 10 of the Communications Act, 47 U.S.C. § 160, the Commission exercised its "predictive judgment that, . . . for the carriers[] and services being addressed, eliminating the extra layer of regulation provided by tariffing and the Commission's ex ante pricing rules"—"while leaving in place basic . . . common-carrier regulation under [S]ections 201, 202, and 208" of the Act—would "promote competition and the public interest," *Order* ¶ 156 [ADD-72] (internal quotation marks omitted).

Various parties (among them Ad Hoc and the predecessor of Sprint Corporation, two of the petitioners here) challenged the Commission's principal forbearance order in the D.C. Circuit. *See Ad Hoc*, 572 F.3d at 907-08. The court upheld the Commission's order, observing that the agency has "substantial" discretion to choose its preferred regulatory approach, including the decision to eliminate ex ante pricing regulation while leaving in place the requirements of Sections 201 and 202 to offer service on just and reasonable terms. *Id.* at 906-07. The court also noted that customers could avail themselves of Section 208's "fast-track" complaint process if carriers failed to abide by those requirements. *Id.* at 909.

5. *BDS rulemaking proceeding*

In 2012, the FCC suspended further grants of Phase I and II pricing flexibility relief for BDS because it found that the existing BDS regulatory framework was in practice "fail[ing] to accurately reflect competition." *Special Access for Price Cap Local Exchange Carriers*, 27 FCC Rcd 10557, 10558 ¶ 1 (2012). The agency then initiated a data collection to uncover how competition, "whether actual or potential, affects prices," and to identify regulatory and other barriers to investment and competition. *Special Access for Price Cap Local Exchange Carriers*, 27 FCC Rcd 16318, 16346 ¶ 68 (2012).

With the benefit of the data collected, the FCC in 2016 issued a further notice of proposed rulemaking, declaring it "time for a new start" in BDS regulation. *Further Notice* ¶ 4 (JA __). The Commission proposed to undertake "large scale de-regulation," coupled where necessary—in areas lacking sufficient competition—with the use of "tailored rules." *Id.* The Commission also made clear its intention to "remove barriers that may be inhibiting" the transition to newer technologies, *id.* ¶ 7 (JA __); *see id.* ¶¶ 268, 271 (JA __, __), and to adopt a regulatory framework suited "not only [for] today's marketplace, but tomorrow's as well," *id.* ¶ 8 (JA __).

In seeking comment, the Commission explained that it thought "*[p]otential* competition" was "important," because "nearby suppliers"—in particular, "fiber-based competitive supply within at least half a mile"—"can constrain BDS prices." *Further Notice* ¶ 161 (JA __) (emphasis added). In addition, consistent with its practice in other contexts, the Commission declared that its competition analysis would be "informed by, but not limited to, traditional antitrust principles." *Id.* ¶ 186 n.478 (JA __). The Commission also made clear that it sought a regulatory framework for transport services to reflect "how the market operates today." *Id.* ¶ 282 (JA __).

C. *Order*

After comprehensive analysis of an extensive record, the Commission "adopt[ed] a [regulatory] framework" that the agency concluded will benefit BDS customers by "promot[ing] long-term innovation and investment by incumbent and competitive providers alike." *Order* ¶ 1 [ADD-3].

The agency determined that, for legacy termination services in many geographic markets, *see supra* p. 4, as well as for legacy transport services and packet-based services, ex ante tariffs and price cap regulations are no longer necessary because there is adequate and growing competition and because the costs of ex ante regulation thus outweigh the benefits, *e.g.*, *Order* ¶ 86 [ADD-41]. But critically, the agency did not eliminate ex post review of retail prices for these services. To the contrary, even where the agency moved away from ex ante regulation, BDS providers remain subject to their statutory duties to offer rates and terms that are just, reasonable, and not unreasonably discriminatory. *E.g.*, *id.* ¶¶ 102 n.308, 124 & n.382 [ADD-48, 58]. In addition, as the Commission underscored, should a BDS provider's rates violate Sections 201 or 202 of the Act, BDS customers have recourse to the agency's Section 208 complaint process and can thereby obtain damages. *See id.* ¶¶ 93, 96, 102, 134, 162, 175 [ADD-44, 45, 47-48, 63, 74, 78].

1. The Commission concluded that the market for newer, packet-based, BDS—which "represents the future"—is already competitive. *Order* ¶ 83 [ADD-40]. It also determined that the market for transport services using legacy technology ("TDM-based transport") shows substantial evidence of competition. *Id.* ¶ 85 [ADD-41]. Based on that analysis, and the availability of other less burdensome forms of regulation, the Commission concluded that costly ex ante pricing regulation is not the best approach to ensure that rates for packet-based and transport services are just and reasonable. *See id.* ¶¶ 87-93 [ADD-41-44].

2. As for lower bandwidth legacy termination services ("TDM-based DS1 and DS3"), the Commission determined that, "thanks to

increased competition," most—but not all—areas are now sufficiently competitive that tariffs and price caps are no longer optimal. *Order* ¶ 84 [ADD-40-41]. Based on "a massive" and unprecedented data collection on industry service and prices, *id.* ¶ 1 [ADD-2], the agency developed a "competitive market test" to identify which areas would receive regulatory relief. Under that two-prong test, a county is deemed sufficiently competitive if (1) 50 percent of the locations with BDS demand in that county are within a half mile of a location served by a competitive provider, or (2) 75 percent of the census blocks in that county have a cable provider offering broadband services. *Id.* ¶ 86 [ADD-41]; *see also id.* ¶¶ 130-144 [ADD-61-69] (selecting those thresholds). In both cases, the Commission concluded that the record evidence supported lower percentage thresholds but opted to take a "conservative approach," *id.* ¶ 141 n.409 [ADD-67], "[o]ut of an abundance of caution," "to ensure that the counties" where ex ante regulation will now not apply are "predominantly competitive," *id.* ¶ 141 [ADD-67]; *see id.* ¶ 142 [ADD-68].[4]

[4] Specifically, the analysis would have supported a threshold of 32 to 48 percent for the first prong of the test, and a threshold of 3 to 23 percent for the second prong of the test. *See Order* ¶¶ 141-142 [ADD 67-68].

The first prong of the competitive market test was rooted in two principal findings. First, the record showed that competitive BDS providers "are commonly willing to extend their existing network out approximately a half mile . . . to meet demand." *Order* ¶ 119 [ADD-55]; *see id.* ¶¶ 43-46 [ADD-23-25]. Second, based on the record and economic authorities, the Commission recognized "a substantial competitive effect" when an incumbent carrier has at least one competitor in the relevant market. *Id.* ¶ 120 [ADD-56].

The second prong of the Commission's competitive market test was grounded in evidence that cable providers have invested steadily in their networks to compete for BDS customers, such that "[t]he entry of cable into [BDS] provisioning has been the most dramatic change in the market over the past decade." *Order* ¶ 55 [ADD-27]; *see id.* ¶¶ 27-29, 119 [ADD-15-16, 55-56]. Cable providers, the Commission found, already exert a competitive effect on prices not only in areas where they provide BDS, *see id.* ¶¶ 27-29, 119 [ADD-15-16, 55-56], but "wherever [they are] supplying mass market broadband services over [their] own network[s]," *id.* ¶ 119 [ADD-55], because "the underlying facilities used to provision best-efforts services . . . can be and are being repurposed to provide [BDS]," *id.* ¶ 31 [ADD-17].

The Commission found that ex ante pricing regulation is no longer optimal for lower bandwidth legacy termination services in areas deemed sufficiently competitive under the competitive market test (or that were previously subject to Phase II reforms). *E.g.*, *Order* ¶ 131 [ADD-61-62]. Such regulation remains justified, the Commission determined, in other areas. *See id.* ¶¶ 178-182 [ADD-79-81].

3. The agency made clear that its competitive analysis was "informed by, but not limited to, traditional antitrust principles designed to protect competition," including the Horizontal Merger Guidelines issued by the Department of Justice and the Federal Trade Commission for review of mergers under federal antitrust laws. *Order* ¶ 12 [ADD-9]. In contrast to antitrust merger review, the FCC is tasked with considering "the public interest" broadly. 47 U.S.C. § 201(b). The agency was therefore cognizant of the "substantial costs of regulating the supply of BDS" through ex ante price setting and tariffs, including the risk of artificially slowing the transition from legacy copper networks to the fiber networks needed for more advanced technologies. *Order* ¶¶ 125-129

[ADD-59-61]. As the agency explained, this may occur when miscalibrated prices discourage entry and investment, a risk exacerbated in a dynamic, heterogeneous market. *See id.* ¶ 127 [ADD-59] (explaining that an "efficient price level" for BDS is "extremely difficult to determine" due to "frequent and often large unforeseen changes in both customer demand for services and network technologies," "a complex set of products and services . . . tailored to individual buyers," and "costs of provision that vary substantially"). Instead, the agency sought to strike "a reasonable balance" that would "foster a market-driven transition from legacy circuit-based services to newer packet-based services and other technologies." *Id.* ¶ 99 [ADD-47].

In short, the Commission explained, the competitive market test was never intended to identify perfect competition. Rather than seeking to determine "whether today nearby competition is everywhere fully effective, or . . . whether it will become so over the next few years," the competitive market test is designed to address "whether the costs of the lack of fully effective competition, even as these decline over time, are likely smaller than the net costs of regulation." *Order* ¶ 125 [ADD-59].

SUMMARY OF THE ARGUMENT

Congress has empowered the FCC "to make the major policy decisions and to select the mix of regulatory and deregulatory tools the Commission deems most appropriate in the public interest to facilitate broadband deployment and competition." *Ad Hoc*, 572 F.3d at 908 (citing 47 U.S.C. § 1302). In the *Order*, the Commission reasonably exercised that power to adjust the degree of regulation imposed on BDS. Specifically, the Commission peeled back the extra layer of ex ante price cap regulation on various types of BDS where it deemed markets sufficiently competitive, without disturbing the statutory requirements of Sections 201 and 202 of the Communications Act, 47 U.S.C. §§ 201, 202, or the fast-track complaint process prescribed under Section 208, *id.* § 208. The FCC concluded that this regulatory approach would better serve the public interest "to facilitate broadband deployment and competition." *Ad Hoc*, 572 F.3d at 908. The FCC's decision was reasonable and reasonably explained.

1. The FCC gave adequate notice for the rules and policies adopted in the *Order*. The Administrative Procedure Act (APA) does not require that an agency's notice contain every detail of the rule that the agency later adopts. The notice is adequate so long as it describes "the subjects

and issues involved" in a manner that allows interested parties to offer informed criticism and comment. 5 U.S.C. § 553(b)(3). Here, the Commission made clear in the *Further Notice* that ex ante pricing regulation would be lifted when not necessary to ensure just, reasonable, and nondiscriminatory rates and terms for BDS. Interested parties had ample opportunity to comment on both the proper metrics for the competitive market test and whether legacy transport and termination services warranted distinct regulatory treatment.

2. In excluding legacy transport services from ex ante pricing regulation, the Commission made a reasonable assessment of the record and appropriately balanced the relative risks of under- and overregulation. The record is replete with evidence that competition for transport services, if not universal, is extremely widespread. Particularly given the continuing availability of the agency's fast-track complaint process, 47 U.S.C. § 208, the Commission reasonably concluded that the risks of overregulation outweighed those of underregulation. The agency's judgment is entitled to deference.

3. Likewise, the Commission reasonably concluded that ex ante pricing regulation is not necessary for lower bandwidth legacy termination services except where the agency's competitive market test

predicts that competition, and the backstop of the Commission's fast-track complaint process, will not adequately ensure just and reasonable rates and terms. In reaching that determination, the Commission reasonably did not restrict itself to a traditional merger review analysis; rather, pursuant to its statutory mandate and reasoned discretion, the Commission evaluated the public interest as a whole and conducted an extensive and reasonable analysis of competition, market conditions, and the costs of continued ex ante regulation. Though the Purchaser Petitioners disagree with some the Commission's findings and predictions, the agency's judgments—as reflected in the competitive market test—are entitled to deference.

4. Also reasonable was the FCC's determination that ex ante pricing regulation is not required for packet-based BDS. Pursuant to judicially approved forbearance orders, packet-based BDS were already widely exempt from price caps before the *Order*. The record showed that incumbent carriers do not exercise market power in the provision of packet-based BDS, which offer a more attractive investment for competitive carriers relative to legacy BDS. And because packet-based BDS are comparatively new services, experiencing rapid growth and changes in standards, the Commission reasonably concluded that ex ante

regulation of these services would have especially high long-term costs. As with legacy transport and termination services, the FCC's fast-track complaint process remains available for packet-based BDS, and the agency's decision to forgo ex ante pricing regulation is entitled to deference.

5. The FCC's decision not to extend the interim wholesale access rule for commercial voice platform services was likewise reasonable. That rule was by its terms scheduled to sunset in conjunction with the conclusion of the BDS proceeding. Based on a careful examination of the record, the Commission concluded that extending the rule for commercial voice platform services would risk deterring investment in IP facilities by both incumbent and competitive carriers. And the Commission reasonably predicted that incumbent carriers would continue to make those services available to competitive carriers once the interim wholesale access rule expired.

6. Finally, the CenturyLink Petitioners' narrow challenge to the FCC's selection of a 2.0 percent X-factor to calculate the price cap for legacy BDS is unfounded. The Commission used a methodology and data that these petitioners themselves advocated, and it determined that an X-factor in the range of 1.7 to 2.3 percent would be reasonable. To account

for claims that the data from which the Commission derived those figures overestimated productivity growth for lower bandwidth legacy termination services, the Commission chose an X-Factor below the top of that range. That approach was reasonable.

STANDARD OF REVIEW

The petitioners bear a heavy burden to establish that the *Order* under review is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A). Under this "highly deferential" standard, the *Order* is entitled to a presumption of validity. *E.g.*, *Nw. Airlines, Inc. v. Goldschmidt*, 645 F.2d 1309, 1317 (8th Cir. 1981) (internal quotation marks omitted). Courts do not "ask whether a regulatory decision is the best one possible or even whether it is better than the alternatives." *FERC v. Elec. Power Supply Ass'n*, 136 S. Ct. 760, 782 (2016). An agency order will survive APA review so long as "the agency has examined the relevant considerations and articulated a satisfactory explanation for its action, including a rational connection between the facts found and the choice made." *Id.* (internal quotation marks and alterations omitted).

The *Order* under review is entitled to even more judicial deference than most agency orders. It is a ratemaking decision, to which courts afford particularly "great deference." *E.g.*, *FERC*, 136 S. Ct. at 782 (internal quotation marks omitted); *see Sw. Bell Tel. Co. v. FCC*, 153 F.3d 523, 547 (8th Cir. 1998) (citing "the FCC's broad discretion in selecting methods . . . to make and oversee rates" (alteration in original; internal quotation marks omitted)); *see also WorldCom*, 238 F.3d at 458 (equating price cap and ratemaking orders). Heightened deference is warranted because ratemaking is not "an exact science," and because it "involves policy determinations in which [agencies are] acknowledged to have expertise." *Sw. Bell Tel. Co. v. FCC*, 168 F.3d 1344, 1352 (D.C. Cir. 1999). In addition, various aspects of the *Order*—including the Commission's conclusions concerning the prospects for both BDS competition and BDS productivity growth—involve exercises of predictive judgment that warrant heightened deference. *See, e.g.*, *Southwestern Bell*, 153 F.3d at 547 ("[J]udicial deference to agency action is especially important when [the] agency's judgments are predictive." (internal quotation marks omitted)).

ARGUMENT

I. THE FCC GAVE AMPLE NOTICE FOR ITS BDS RULES.

The APA requires an agency to provide notice of "*either* the terms or substance of the proposed rule *or* a description of the subjects and issues involved." 5 U.S.C. § 553(b)(3) (emphasis added). An agency's notice thus "need not contain every precise proposal . . . [the agency] may ultimately adopt as a rule," so long as the notice is "sufficiently descriptive of the subjects and issues involved so that interested parties may offer informed criticism and comments." *Northwest Airlines*, 645 F.2d at 1319 (internal quotation marks omitted). In other words, an agency's final rules need not be "coterminous" with its original proposals. *Agape Church, Inc. v. FCC*, 738 F.3d 397, 412 (D.C. Cir. 2013). The APA is satisfied when "the final rule[s] [an] agency adopts" are "a 'logical outgrowth' of the rule[s] proposed." *Long Is. Care at Home, Ltd. v. Coke*, 551 U.S. 158, 174 (2007). That will be the case if parties "should have anticipated" the agency's final rules would be a "viable result in light of the [initial notice]." *Agape*, 738 F.3d at 412 (internal quotation marks omitted).

According to the Purchaser Petitioners, the "thrust" of the FCC's *Further Notice* was that the existing BDS regulatory regime was too relaxed. Br. 25. They argue that the Commission thus committed itself (absent further notice and comment) to adopting ex ante pricing regulations that would apply to "granular" geographic areas. Br. 26 (internal quotation marks omitted).

That is wrong. The Commission proposed in the *Further Notice* to undertake "large scale de-regulation." *Further Notice* ¶ 4 (JA __). The Commission emphasized that it would seek whenever possible "to rely upon market forces" to ensure just and reasonable rates and terms. *Id.* ¶ 270 (JA __); *accord id.* ¶¶ 5, 209, 278 (JA __, __, __). The Commission contemplated "a new regulatory framework built [in part] on [that] fundamental principle[]," to "go[] hand in hand with the use of tailored [ex ante] rules" only where necessary. *Id.* ¶ 4 (JA __); *see id.* ¶ 278 (JA __) (proposing "to create a framework that" regulates "only to the extent necessary to ensure rates are just and reasonable"). The agency further made clear that it sought to reduce regulatory barriers to BDS investment and newer technologies, *see id.* ¶¶ 7, 268, 271 (JA __, __, __), and that it would also consider administrative feasibility, *e.g.*, *id.* ¶¶ 209, 271, 278, 280 (JA __, __, __, __). Finally, when the Commission solicited comment on whether to measure competition at a "granular" level, "such as the building or cell site location," Br. 26 (quoting *Further Notice* ¶ 289 (JA __)), it expressly asked "whether a larger geographic area [would be] appropriate," *Further Notice* ¶ 289 (JA __). The FCC thus plainly gave notice it might lift ex ante regulation in many markets.

The Purchaser Petitioners' more specific challenge concerning notice for the final form of the Commission's competitive market test (Br. 26-27) fares no better. The agency explained in the *Further Notice* that it might adopt a competitive market test. *See* ¶¶270-271 (JA __, __). It proposed for that test to identify "areas where actual *or potential competition* is insufficient to ensure rates, terms and conditions are at just and reasonable levels." *Id.* ¶ 292 (JA __) (emphasis added). The Commission also made clear it had not yet chosen a particular geographic area for the competitive market test. *E.g.*, *id.* ¶ 289 (JA __). It did, however, observe that "fiber-based competitive supply within at least half a mile generally has a material effect on prices of BDS with bandwidths of 50 [megabits per second (Mbps)] or less," *id.* ¶ 161 (JA __), and it discussed evidence that providers are "willing to extend their facilities to reach potential customers" at distances as long as *****BEGIN HIGHLY CONFIDENTIAL***** [redacted] [redacted] *****END HIGHLY CONFIDENTIAL***** *Order* ¶ 40 [ADD-22] (quoting *Further Notice* ¶ 211 (JA __)). The Commission further recognized that multiple competitors might not be necessary to ensure competition, *see Further Notice* ¶ 294 (JA __), expressly invited comment on "how [to] identify the presence of a competitor in the area," *id.*, and highlighted that "competition from a cable company" might figure in the agency's market analysis. *Id.* Notably too, the Commission repeatedly emphasized that it would consider any "alternative test metrics" supported by the comments. *Id.* ¶ 295 (JA__).[5] The competitive market test was thus plainly "a viable result in light of the [*Further Notice*]." *Agape*, 738 F.3d at 412.

The Purchaser Petitioners' "deficient notice" claim concerning transport services (Br. 27-28) is likewise unavailing. The FCC expressly recognized in the *Further Notice* that there might be a basis for treating transport and termination services differently. *See* ¶ 281 (JA __) (citing with approval the Commission's prior determination that "competitors [are] more likely to enter the market to provide dedicated transport services than channel terminations"). Although applying a uniform competitive market test to termination and transport services might

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[5] *See also Further Notice* ¶ 493 (JA __) (proposing to evaluate "alternative approaches and criteria for determining whether or not a market is competitive" in view of "administrative feasibility" and the agency's previously articulated "core goals" for the BDS proceeding); *id.* ¶¶ 495-496 (JA __) (encouraging commenters to propose "alternative market test[s]" that might be "simpler than the framework proposed above," as well as to "consider and suggest higher-level alternative regulatory regimes that would further the Commission's core goals").

have been possible under the terms of the *Further Notice*, the agency never committed to that approach. *See id.* ¶¶ 278, 282 (JA __). Rather, the Commission expressed its intent to choose a regulatory framework for transport services that would "reflect how the market operates today," *id.* ¶ 282 (JA __), and to refrain from using ex ante pricing regulation unless "necessary to ensure rates are just and reasonable," *id.* ¶ 278 (JA __); *see also id.* ¶ 496 (JA __) ("encourag[ing] commenters to consider and suggest higher-level alternative regulatory regimes"). Thus, here too, the Purchaser Petitioners "should have anticipated" that the agency's eventual treatment of transport services was a possible outcome. *Agape*, 738 F.3d at 412.[6]

Finally, even if the Court were to conclude that the *Further Notice* failed to provide adequate notice, that procedural error would be harmless because the FCC released a version of the *Order* three weeks before its ultimate adoption that was substantively equivalent to the

[6] Contrary to the Purchaser Petitioners' claim, this case is unlike *CSX Transportation, Inc. v. Surface Transportation Board*, 584 F.3d 1076 (D.C. Cir. 2009), in which the agency merely "mention[ed] . . . the release of one-year data for" drawing benchmarks, *id.* at 1082, but "neither asked for comments on [the] particular issue" of what dataset to use, *id.* at 1081, nor gave any indication "that the amount of data available for that purpose might change," *id.* at 1082.

final *Order* in all relevant respects. *See* Br. 26; *Stay Denial* ¶ 35 (JA __). The Commission fully considered the substantial input it received in response—which included comments from, and ex parte meetings with, Purchaser Petitioners Sprint and Windstream Services, LLC.[7] At a minimum, then, the Purchaser Petitioners had actual notice and an opportunity to comment. *See Nat'l Ass'n of Broadcasters v. FCC*, 789 F.3d 165, 176 (D.C. Cir. 2015).

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[7] *See, e.g.*, Letter from Counsel for Sprint and Windstream 1-10 (JA __-__) (Apr. 17, 2017) (responding in a 10-page, single-spaced letter to various issues concerning the version of the *Order* released in March 2017, including the Commission's recognition of the significance of competition from cable and the possibility of build-out by nearby competitors, as well as the Commission's contemplated regulatory treatment of transport services); Letter from Counsel for Sprint and Windstream 1-22 (JA __-__) (Apr. 13, 2017) (addressing the competitive market test and transport services in a 21-page, single-spaced filing); *see also Order* ¶¶ 2 n.4, 90 n.289, 95 & n.297 [ADD-3, 43, 45] (addressing those filings).

II. THE FCC'S DECISION TO FORGO EX ANTE PRICING REGULATION FOR TRANSPORT SERVICES WAS REASONABLE AND REASONABLY EXPLAINED.

A. The FCC Reasonably Exercised Its Broad Discretion to Select a Feasible Approach That Avoids Undue Burdens on a Highly Competitive Segment of the BDS Market.

The Commission's determination that ex ante "price regulation is not required" for legacy transport services rests on a thorough examination of the record that revealed "substantial evidence of competition in TDM-based transport markets," *Order* ¶ 85 [ADD-41], "as well as [other] market conditions" that weighed against a more heavy-handed regulatory approach, *id.* ¶ 79 [ADD-38]. Notably, as the agency found, competition for transport services has remained "robust" even though "a substantial majority of transport revenue has been [exempt from ex ante pricing regulation] since the early 2000s." *Id.* (internal quotation marks omitted). The record showed that "competitive providers have deployed competing transport networks in more than 95% of census blocks with [BDS] demand"—areas that include "about 99% of business establishments." *Id.* Many major markets have "as many as 28 competitive transport providers." *Id.* [ADD-39]. And the Commission found that because "[t]ransport services are typically higher volume services between points of traffic aggregation," they "can more easily justify competitive investment and deployment." *Id.* ¶ 77 [ADD-37]; *see id.* ¶ 92 [ADD-43-44]. Indeed, the record showed that "many" competitive carriers have now "deployed [their own] transport instead of buying the service" from incumbent carriers. *Id.* ¶ 81 [ADD-39].

The FCC did not claim that competition for transport services is "universal." *Order* ¶ 92 [ADD-44]. It acknowledged that, "in all likelihood," there are "a relatively small percentage of census blocks," representing "an even smaller percentage of overall demand," in which there is no "immediate prospect of competitive transport options." *Id.* [ADD-43]. But the Commission determined that competition is "sufficiently widespread" to "protect against the risk of supracompetitive rates" "over the short- to medium-term." *Id.* [ADD-44]. And overregulation, the Commission explained, risks the "greater harm" of discouraging competitive entry. *Id.* [ADD-43]; *see also id.* ¶ 93 [ADD-44] (observing that imposing ex ante pricing regulation would add "an additional layer of regulatory complexity that would undermine predictability and ultimately hinder investment including in entry, and growth"). Finally, the Commission observed that the "[S]ection 208 complaint process" remains available as "a continuing safeguard against unjust and unreasonable rates." *Id.*; *see* 47 U.S.C. § 208.[8]

The FCC did not strive to craft a regulatory approach with "absolute mathematical precision," but rather to adopt "an administratively feasible approach that avoids imposing undue regulatory burdens on [a] highly competitive segment of the [BDS] market." *Order* ¶ 93 [ADD-44]. It reasonably predicted that "[r]efraining from [ex ante] pricing regulation for transport services nationally achieves the proper [regulatory] balance." *Id.* Such a "judgment about the best regulatory tools to employ . . . is . . . entitled to considerable deference." *WorldCom*, 238 F.3d at 458 (second alteration in original; internal quotation marks omitted); *see also Southwestern Bell*, 153 F.3d at 547 ("[J]udicial deference to agency action is especially important when [the] agency's judgments are predictive." (internal quotation marks omitted)).

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[8] *See also AT&T Corp. v. Iowa Network Servs. Corp.*, FCC 17-148, 2017 WL 5237210 (Nov. 8, 2017) (adjudicating a complaint under Section 208(b) and finding the disputed rates unlawful); *Qwest Commc'ns Corp. v. Farmers & Merchs. Mut. Tel. Co.*, 22 FCC Rcd 17973 (2007) (same).

B. The Petitioners' Challenges Are Unpersuasive.

In challenging the agency's decision to exclude transport services from ex ante pricing regulation, the Purchaser Petitioners ignore virtually all of the analysis described above and mischaracterize the Commission's actions. They argue (Br. 31) that the Commission's decision was based on a single set of statistics: that 92 percent of customer locations are "within a half mile of competitive fiber transport facilities," and that nearly 90 percent of census blocks with BDS demand "have at least one served building within a half mile of competitive . . . fiber." *Order* ¶ 91 [ADD-43]. But the Commission's analysis did not hinge on those statistics, which it cited only "to confirm its conclusion that [the transport] portion of the [BDS] market has been and will continue to be competitive." *Stay Denial* ¶ 25 (JA __). Instead, the agency reviewed considerable additional evidence that competition in the transport market is robust and widespread, including the presence of competitors in over 95 percent of census blocks, evidence of investment in transport services by competitive providers, and other factors. *See Order* ¶¶ 77-82 [ADD-37-40].

In any event, the Purchaser Petitioners are wrong that the only metric relevant to the question before the agency was "whether competitors have facilities in and between two [incumbent telephone company end] offices." Br. 31; *see also id.* at 18 ("[I]nteroffice transport carries traffic between two offices owned by the incumbent local exchange carrier."). Transport services are "not exclusively relegated to the carriage of traffic between end offices." *Stay Denial* ¶ 26 (JA __). They are used to carry data between other "points of traffic aggregation" as well. *Order* ¶ 77 [ADD-37]; *see id.* ¶ 81 n.273 [ADD-39] (finding that competitive carriers "can and do bypass incumbent [carriers'] facilities" for network interconnection); *Stay Denial* ¶¶ 26-27 (JA __-__). The question before the agency was how to regulate all legacy transport services, not the subset (end-office to end-office) on which the Purchaser Petitioners seek to focus.

Also unpersuasive is the Purchaser Petitioners' claim (Br. 34-35) that excluding transport services from ex ante pricing regulation will allow incumbent carriers in areas where legacy termination services are subject to price caps to evade those caps by inflating their rates for transport services. That claim depends heavily on the premise that competitive transport facilities are unavailable along many "particular interoffice transport route[s]." Br. 34. Otherwise, carriers cannot charge supracompetitive prices for transport. But the Commission rejected that contention as unsupported by any "data or anecdotal evidence," and as inconsistent with abundant evidence that competitive transport is pervasive. *Order* ¶ 80 [ADD-39].[9]

Moreover, as the Commission explained, "transport service represents the 'low-hanging fruit' of the [BDS] circuit," due to the "relatively low expected per-unit cost of deploying a new, relatively high-capacity inter-office transport facility, and the expected revenue derived from the sale of that facility." *Order* ¶ 82 [ADD-40]. "Thus, in the face of increased demand for transport services, . . . responsive market conditions . . . support the deployment of competitive facilities, through

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[9] The Purchaser Petitioners mistakenly argue (Br. 33, 34) that the FCC could not rationally cite data at the level of "metropolitan statistical areas" (MSAs) to support the ubiquity of competitive transport services. To be sure, the agency has acknowledged that the availability of competitive services in one portion of an MSA does not prove that the entire MSA is competitive. *See Order* ¶ 97 [ADD-45]. But that does not mean the Commission must ignore MSA-level evidence altogether, particularly when it made no claim that competitive transport services are universally available and when it buttressed its conclusion with county and census-block data and other evidence.

either new entry or conversion." *Id.* In other words, given the wide reach of competitive transport, even if there are instances in which a non-incumbent BDS carrier requires transport that only an incumbent provides, the presence of competitive carriers nearby will have a price-disciplining effect.[10]

Finally, the Purchaser Petitioners incorrectly imply that the Commission completely "deregulated" transport services. Br. 30. To the contrary, the Commission explicitly acknowledged that there may be certain census blocks without current competition, but concluded that in those cases, any effort by incumbent carriers to charge supracompetitive rates for transport (and thus evade price caps for legacy termination services) would be redressable through the Commission's fast-track complaint process. *See Order* ¶ 93 [ADD-44]. In other words, given the presence of robust competition in over 95 percent of census blocks in the country, the Commission reasonably concluded that the costs of ex ante

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[10] *See also Order* ¶ 93 [ADD-44] ("[R]egulatory relief in this market will foster conditions that will continue to encourage competitive entry and provide incentive for further investment in fiber transport facilities."); *id.* ¶ 96 [ADD-45] (recognizing that entry into the market for legacy transport services "is typically at higher-bandwidths and requires less investment per unit of traffic than required for channel terminations").

regulation (as opposed to ex post review) in the remaining areas outweighed the benefits of imposing and administering price caps. It was eminently reasonable for the Commission to decide not to incur the "high cost, devotion of considerable agency resources, large legal fees, and endless argument" that often accompany attempting to solve "the last 10 percent" of a regulatory problem. Stephen Breyer, Breaking the Vicious Circle: Toward Effective Risk Regulation 11 (Harv. Univ. Press 2009).

III. THE COMPETITIVE MARKET TEST IS REASONABLE AND WELL SUPPORTED BY THE RECORD.

The Purchaser Petitioners challenge the Commission's competitive market test, which delineates the areas that will remain subject to ex ante pricing regulation for lower bandwidth legacy BDS. That test is well founded in the record, and the Purchaser Petitioners' challenges are baseless.

A. The FCC Reasonably Found That Ex Ante Pricing Regulation Is No Longer Necessary for Much of the Lower Bandwidth Legacy BDS Market.

The Commission eliminated ex ante pricing regulation for lower bandwidth legacy termination services except "in those limited number of areas" where the agency's competitive market test predicts that "competition will fail to ensure just and reasonable rates." *Order* ¶ 96

[ADD-45]. But, as with transport services—and contrary to what the Purchaser Petitioners assert—the agency did not "remove price regulation" in those areas. Br. 35. Instead, it shifted to a different type of more targeted regulation that it deemed more suitable for areas where prices are already constrained by competition. As the agency repeatedly emphasized, *see, e.g.*, *Order* ¶¶ 102 n.308, 124 & n.382. [ADD-48, 58], providers of lower bandwidth BDS are required—as they always have been—to offer service on "just and reasonable" terms, 47 U.S.C. § 201(b), that are not unfairly discriminatory, *id.* § 202(a). The difference is that the agency is no longer relying on filed tariffs and ex ante price caps to ensure those requirements are met. If carriers do not charge rates that are just and reasonable, customers may bring a complaint before the agency under Section 208 of the Act, *id.* § 208, and the Commission has the authority to declare a rate unreasonable and award damages, *e.g.*, *Order* ¶¶ 93, 96, 102, 134, 162, 175 [ADD-44, 45, 47, 63, 74, 78].

This regulatory recalibration is strikingly like the agency's 2007 order that forbore from price caps for packet-based BDS, which the D.C. Circuit upheld in *Ad Hoc*. *See* 572 F.3d at 908. There too, the FCC found that ex ante price cap regulation "may create market inefficiencies," and that forbearance would ultimately "increase competition." *Id.* at 909 (internal quotation marks omitted). In the *Ad Hoc* court's view, the agency's policy decision to "eliminat[e] the extra layer of dominant-carrier pricing regulation . . . while leaving in place basic . . . common-carrier regulation" was "a hotly debated and eminently debatable, but ultimately reasonable, conclusion." *Id.* at 908. And like the FCC here, the court also emphasized the availability of Section 208's "formal fast-track process . . . to challenge the reasonableness of rates." *Id.* at 909; *see id.* at 909-10 ("[C]ompetitive broadband business service providers and business customers are sophisticated entities that presumably would not be shy about invoking available remedies . . . .").[11] Here as in *Ad Hoc*, the agency exercised its discretion and predictive judgment to find that the protections of Sections 201, 202, and 208 of the Act will be sufficient in this increasingly competitive market.

[11] To be sure, the *Ad Hoc* court observed that TDM-based services (i.e., non-packet based services) would continue under price cap regulation, which the FCC has now decided is to a large extent no longer necessary. 572 F.3d at 910. But the agency found in the *Order*, eight years later, that even those services increasingly face competition. *Cf. id.* (citing "competitive carriers' growing ability to deploy their own facilities and thereby reduce their reliance on [incumbent carriers] altogether").

B. The Competitive Market Test Is Well Grounded in the Record.

Under the Commission's new competitive market test, there will be no price caps in counties where (1) "50 percent of the locations with BDS demand . . . are within a half mile of a location served by a competitive provider" or (2) "75 percent of the census blocks . . . have a cable provider." *Order* ¶ 86 [ADD-41]. The Purchaser Petitioners challenge both prongs of the test, but each is based on the FCC's reasonable predictions and evaluation of the record.

1. *Competitors within a half mile temper prices.*

The agency found "that wireline providers of BDS are commonly willing to extend their existing network out approximately a half mile, and in some instances further, to meet demand." *Order* ¶ 119 [ADD-55]. Providers therefore "actively compete for customers located within about a half mile from their networks by bidding on requests for proposals and sending their sales personnel to offer their services." *Id.* ¶ 118 [ADD-54]. As the agency explained, "[a] nearby [BDS] competitor constrains pricing by responding to [requests for proposals, or] RFPs and participating in similar customer service bidding requests, which creates a pricing floor without any physical presence of the potential competitor in the nearby geography." *Order* ¶ 67 [ADD-32]; *see id.* ¶ 118 [ADD-54].[12]

In support, the agency cited evidence that "competitors typically compete for customers in buildings within about a half mile of their network facilities." *Order* ¶ 41 n.135 [ADD-22]; *see id.* ¶ 40 [ADD-21] ("For larger competitive [carriers], the majority of buildouts are within *****BEGIN HIGHLY CONFIDENTIAL***** [redacted] *****END HIGHLY CONFIDENTIAL***** from a splice point and less commonly exceed *****BEGIN HIGHLY CONFIDENTIAL***** [redacted] *****END HIGHLY CONFIDENTIAL***** away from the nearest splice point on their fiber network."); *id.* ¶ 40 n.132 [ADD-22] (citing evidence that AT&T strives to maintain maximum distances from its network to customers of *****BEGIN HIGHLY CONFIDENTIAL***** [redacted] *****END HIGHLY CONFIDENTIAL***** and that *****BEGIN HIGHLY**

[12] The Purchaser Petitioners emphasize that some 86 percent of locations are served by only one provider (Br. 35, 40), but this ignores the price discipline from these other competitors. Moreover, as the agency explained, "We fully expect locations with a single customer to typically have only one provider. Even those locations with multiple customers may only have a single provider—the provider that won the bidding process to supply the location." *Order* ¶ 123 [ADD-58].

CONFIDENTIAL*** [redacted] *****END HIGHLY CONFIDENTIAL*****); *id.* ¶ 45 n.146 [ADD-24] (*****BEGIN HIGHLY CONFIDENTIAL***** [redacted] *****END HIGHLY CONFIDENTIAL*****). This finding was consistent with tentative conclusions the FCC made in the *Further Notice* that competitors are willing to extend their facilities to reach potential customers "typically rang[ing] from *****BEGIN HIGHLY CONFIDENTIAL***** [redacted] [redacted] *****END HIGHLY CONFIDENTIAL***** to *****BEGIN HIGHLY CONFIDENTIAL***** [redacted] *****END HIGHLY CONFIDENTIAL***** *Order* ¶ 40 [ADD-22] (quoting *Further Notice* ¶ 211 (JA __)), and that "fiber-based competitive supply within at least half a mile generally has a material effect on prices of BDS with bandwidths of 50 Mbps or less," *Further Notice* ¶ 161 (JA__). The agency's independent expert made similar findings. *Order* ¶ 41 n.138 [ADD-23] (competitive providers "generally build out no more than a quarter to a half-mile").

The Purchaser Petitioners concede that competitors may build out up to a half mile, but they claim that those competitors are "very likely" to serve high-bandwidth customers and that such buildout is infeasible for lower bandwidth customers. Br. 45-50. This argument is misleading and unpersuasive for multiple reasons. First, contrary to the petitioners' implicit assumption that competitors must build out a single half-mile circuit at a time, the record showed that competitive providers "consider nearby demand and build circuitous routes, . . . lengthen the terms of their contracts to recover the cost of buildout, and . . . place spare splice points along their network routes to accommodate future demand." *Order* ¶ 54 [ADD-26]; *see id.* ¶ 42 [ADD-23] ("[E]ven when demand is too low to justify the buildout, competitive providers often consider whether there are any potential customers nearby and may even take a more circuitous route in anticipation of additional demand from businesses along the route."). For example, one competitive carrier explained that *****BEGIN HIGHLY CONFIDENTIAL***** [redacted] ***** END HIGHLY CONFIDENTIAL *****). *Id.* ¶ 42 n.140 [ADD-23]. As the agency found, "once providers have sunk substantial costs into a network, it is in their interest to build laterals to as many customers as possible because the relative cost of a lateral is much lower than the cost of other network facilities." *Id.* ¶ 54 [ADD-26].

Second, most customer premises in counties that pass the competitive market test will be much closer to a competitor than a half mile. In those counties, the average distance from locations with BDS demand to competitive providers is approximately one eighth of a mile, and 81 percent of locations are within a quarter mile. *See Order* ¶ 132 n.402 [ADD-62].

Third, the Commission reasonably resolved discrepancies in a voluminous administrative record to determine that providers would build out up to a half mile, even in some cases for lower bandwidth customers. One expert's analysis showed that [redacted]), showing a willingness to provide lower bandwidth at a considerable distance. *See* Mark Israel, et al., *Analysis of the Regressions and Other Data Relied Upon in the Business Data Services FNPRM and a Proposed Competitive*

Market Test 10, 34 (JA__, __) (Aug. 9, 2016). The Purchaser Petitioners assert that a half mile of new underground facilities would cost $90,000, requiring some 300 months to recoup at an average rate of $300 per month for lower bandwidth service. Br. 46-47. But this estimate is based on entirely underground lines, the most expensive type of facility, while most actual builds also (or only) use less expensive aerial lines. *See* CostQuest Study 5 (JA __) (study submitted by Windstream assumed aerial, buried, and underground facilities). Purchaser Petitioner Windstream's own submissions to the agency estimated much lower costs that would average $21,200 for a half-mile link to a customer's premises.[13] The same study found an average "monthly cost" for such a line—i.e, costs of depreciation, cost of money, taxes, and operational costs—of about $370 for a half-mile build.[14] A provider looking to cover that cost through fees would obviously make a much different calculation,

[13] *See* CostQuest Study 6 (JA __). This study estimated a cost of $80,281 for 20 500-foot laterals, or a cost of $4,014 per 500-foot lateral, and an average cost of about $21,200 per line per half mile. (A lateral is a fiber connection from the provider's network to a customer's premises.)

[14] The report estimates the "monthly cost" of those 20 500-ft laterals at $1,402. *Id.* That is a monthly cost of $70.10 per 500-foot lateral, which equates to an average monthly cost of about $370 per half mile lateral.

and be able to recoup costs much more quickly, than in the hypothetical proposed by the Purchaser Petitioners here.[15]

To be sure, some competitive BDS providers—who favored stricter price regulation because they are also sometimes BDS customers—claimed that some buildouts are infeasible. But, as described above (pp. 45-47) the record also contained evidence that such buildouts happen, often aided by cost-saving measures such as aggregating customers and seeking longer contracts. The agency's reading of the record as a whole was reasonable and is owed deference. *See Ad Hoc*, 572 F.3d at 908 ("[APA review] is particularly deferential in matters such as this, which implicate competing policy choices, technical expertise, and predictive market judgments."); *Time Warner Telecom, Inc. v. FCC*, 507

[15] The Commission did not misunderstand or ignore the CostQuest Study, as the Purchaser Petitioners assert. Br. 49-50. The Commission found the study unconvincing in part because the study assumed a separate lateral to each customer location, whereas providers are more likely to aggregate customers, especially for lower bandwidths or longer distances. *Order* ¶ 118 n.363 [ADD-55]. The petitioners are correct that the study assumed multiple total customers (Br. 50), but the agency's point was that the study assumed separate laterals. The study also included the cost of the main fiber ring (the network's "backbone"), which the Commission treats as an already sunk cost. *See Stay Denial* ¶ 17 (JA __).

F.3d 205, 221 (3d Cir. 2007) ("[P]redictive judgments about matters within [the agency's] expertise are entitled to substantial deference.").

2. *Cable is an increasingly important competitor.*

The second prong of the competitive market test is based on the presence of cable, which has made "dramatic" inroads into the BDS market over the past decade. *Order* ¶ 56 [ADD-27]. "As consumer bandwidth demand grew exponentially over the past decade, cable providers were required to invest billions of dollars pushing fiber deeper into their networks as they needed to continually split nodes to keep pace with the demand." *Id.*; *see generally id.* ¶¶ 55-62 [ADD-27-30] (collecting data concerning investment). These robust fiber networks have "dramatically lowered the cost of building out fiber to the surrounding business locations due to the shorter distances required to reach any location." *Id.* ¶ 56 [ADD-27]. Now, cable companies can compete along three avenues. Where they have complete fiber networks, they can provide very high bandwidths to serve even "the largest enterprise customers." *Id.* ¶ 55 [ADD-27]. And over their "near ubiquitous" "legacy hybrid-fiber-coaxial" networks, they can provide both BDS at lower bandwidths for DS1 and DS3 customers, as well as "best efforts" services which, although not true BDS because of lesser service guarantees, are nonetheless attractive to many business customers. *See id.*; *id.* ¶ 21 [ADD-12] ("[L]egacy hybrid-fiber-coaxial . . . and copper (in fact, generally hybrid-fiber-copper) facilities are commercially used to provide low bandwidth business data services (if not always at the highest commercially available quality standards)."); *id.* ¶ 31 [ADD-16] (noting the importance of best efforts service).

Incumbent carriers thus "increasingly find themselves competing with cable for [BDS] customers." *Order* ¶ 55 [ADD-27]. For example, incumbent carrier CenturyLink "views cable providers to be its primary [BDS] competitors, given their expansive networks and rapid growth in business markets." *Id.* (quoting a statement from CenturyLink in the record). The data back this up: Verizon saw a *****BEGIN HIGHLY CONFIDENTIAL***** [redacted] *****END HIGHLY CONFIDENTIAL***** percent decline in Ethernet orders in one three-month period year-over-year, with customers "telling Verizon that [this] trend will continue and worsen as they send more business to cable," while AT&T "calculates that it lost *more than* *****BEGIN HIGHLY CONFIDENTIAL***** [redacted] *****END HIGHLY CONFIDENTIAL***** of its DS1 business from nonaffiliates just between January 2013 and October 2015." *Id.* ¶ 69 [ADD-33] (internal quotation marks omitted). One analyst predicted that business revenues for cable companies will almost double between 2014 and 2019. *Id.* ¶ 62 [ADD-30]. With this competitive pressure, the agency found "persuasive evidence of recent decreases in the prices of packet-based services across all bandwidths." *Id.* ¶ 70 [ADD-33].

Despite this evidence, the Purchaser Petitioners argue it was unreasonable for the FCC to take account of cable's presence when assessing the marketplace for lower bandwidth BDS connections. They assert two reasons, but neither is persuasive.

First, the Purchaser Petitioners note that the competitive market test finds competitive pressure in census blocks served by a cable provider, without requiring that the cable provider presently offer BDS. They contend that was unreasonable because some providers now offer only best efforts service, and (the petitioners contend) the FCC found best efforts providers are not in the BDS market. Br. 50. That is incorrect.

In fact, the Commission's finding was far more nuanced. The agency did not find sufficiently broad substitution to declare the services are in the same market, but nonetheless concluded that "[i]n many circumstances, customers are willing to trade guaranteed service levels for higher bandwidth and better prices." *Order* ¶ 31 [ADD-17]. Thus, "despite noticeable differences in performance and prices between business data and best-efforts services," "the record includes evidence of incumbent [carriers] losing small- and medium-sized customers to cable's best-efforts offerings." *Id.*; *see id.* (citing evidence that, in a recent 13-month period, "a very substantial portion of AT&T's competitive losses [in BDS] were to cable companies and a significant portion of those losses were to best efforts cable services").

Moreover, the record showed that hybrid-fiber-coaxial facilities give a provider a leg up on upgrading to pure fiber. *See Order* ¶ 21 n.56 [ADD-12] ("[T]he existence of [hybrid-fiber-coaxial] facilities can facilitate Comcast's ability to construct new fiber connections to customer locations more rapidly and at lower cost than if Comcast lacked nearby [hybrid-fiber-coaxial] facilities." (internal quotation marks omitted)). The agency therefore used evidence of cable operators' broadband service (even on a residential, non-BDS basis) "as a reasonable proxy" for networks "that are capable of delivering or being upgraded to deliver a full range of [BDS] (over fiber and coaxial cable) with only incremental investment and over a reasonable period of time." *Order* ¶ 142 n.411 [ADD-68]. That prediction is reasonable. The Commission found that once cable companies have "sunk substantial costs into a network, it is in their interest to build laterals to as many customers as possible," and that there is a marked and accelerating trend of cable companies doing just that. *Id.* ¶ 54 [ADD-26].

Second, the Purchaser Petitioners claim that the agency "ignored" evidence that existing cable networks could not support widespread BDS. Br. 51. Not so. While some cable companies submitted evidence that existing hybrid-fiber-coaxial networks cannot support high-bandwidth BDS, their evidence showed that these networks can provide service at lower bandwidths—which is more relevant to the question of competition for incumbents' lower bandwidth services, given that higher bandwidth customers are more attractive targets for upgrades to all-fiber service. *See* Cox Comments, Decl. of Jeffrey Finkelstein ¶ 13 (JA __) (stating that, due to "constraints inherent in a shared network," "Cox currently offers [Ethernet over hybrid-fiber-coaxial facilities] only up to 10 Mbps," but offers higher speeds over pure fiber networks); CenturyLink Reply, Decl. of James Morris ¶ 6 (JA __) ("CenturyLink can buy symmetric Ethernet speeds of up to 10 Mbps over [hybrid-fiber-coaxial] facilities . . . ."); Comcast Comments 11 (JA __) (stating that Comcast's hybrid-fiber-coaxial service is "limited to 10 Mbps").[16]

In short, the record shows that cable is an increasingly important competitor in the BDS market, including the market for lower bandwidth BDS. It was reasonable to account for this trend in developing the competitive market test.

3. ***One additional competitor provides the most significant benefit.***

The competitive market test is based on the presence of one additional competitor because, in the BDS market, "the largest benefits from competition come from the presence of a second provider, with added benefits of additional providers falling thereafter." *Order* ¶ 120 [ADD-56]. As the agency explained, "consistent with other industries with large sunk costs, the impact of a second provider is likely to be particularly profound in the case of wireline network providers." *Id.*; *see id.* ¶ 120 nn.369-371 [ADD-56] (collecting authorities). The record

[16] 10 Mbps is greater than the capacity of a DS1 line but less than that of a DS3 line, which offers up to 45 Mbps. A DS3 customer requiring bandwidths above 10 Mbps can still look to cable for both best efforts and full-fiber service.

showed, for example, that when Sprint solicited bids for BDS service to its cell towers, *****BEGIN HIGHLY CONFIDENTIAL***** [redacted] *****END HIGHLY CONFIDENTIAL*****. *Id.* ¶ 120 n.369 [ADD-56].

The Purchaser Petitioners point out that the authorities on which the Commission relied often found additional benefits from more competitors beyond duopoly. Br. 58. But again, the agency did not claim that a first additional competitor would guarantee a perfectly competitive price. Rather, it found that the largest benefits flowed from the first competitor, with benefits falling thereafter. *Order* ¶ 120 [ADD-56]. It was reasonable, given the costs of ex ante pricing regulation, to test for the most significant benefit, rather than to seek perfect competition. *See id.* ¶ 123 [ADD-57-58] (concluding that refraining from price caps only in locations with at least four providers, as competitive carriers had asked, would "result in overregulation in numerous locations that have competitive choice").

The Purchaser Petitioners also assert that the FCC overvalued the presence of a second competitor because it erroneously assumed that the incremental cost of providing service is low. Br. 58. Not so. The agency simply found that the marginal costs are modest *in comparison* to sunk costs and so are likely to encourage competition. *See, e.g.*, *Order* ¶ 123 [ADD-57] (given "high sunk network cost[s]," "even as few as two nearby providers have the incentive to undercut each other's price to win customers so long as they at least recover the incremental cost of extending supply to any customer").

The FCC did not "ignore[] its own precedent" on this issue (Br. 57), because the agency has not consistently found that markets with two participants are insufficiently competitive. Indeed, the previous BDS rules determined the appropriate level of regulation based in part on the presence of even a single competitor at a particular location.[17]

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[17] Under the previous BDS regime, incumbents could be relieved of price cap regulations by showing that at least one competitor was physically present in a certain percentage of wire centers. *Pricing Flexibility Order*, 14 FCC Rcd at 14234 ¶ 24. This demonstrated a "significant market presence" "sufficient to preclude the incumbent from exploiting any monopoly power over a sustained period." *Pricing Flexibility Order*, 14 FCC Rcd at 14296 ¶¶ 141-142.

Moreover, in the *Order*, the agency specifically considered and distinguished the precedent on which the Purchaser Petitioners rely. ¶¶ 121-122 [ADD-57]; *see Petition of Qwest Corp. for Forbearance Pursuant to 47 U.S.C. § 160(c) in the Phoenix, Arizona Metro. Statistical Area*, 25 FCC Rcd 8622, 8637 ¶ 30 (2010) (*Qwest/Phoenix*) (discussed at Br. 57-59). In *Qwest/Phoenix*, the agency made clear that "duopolies may yield competitive results in certain circumstances," but "may pose competitive concerns in other circumstances." *Id.* Moreover, the Commission made these observations in *Qwest/Phoenix* in the context of the retail phone service market. The Commission then went on to analyze the Phoenix enterprise communications market to determine whether Cox, the incumbent cable provider, was providing effective competition there. *Id.* at 8658-71 ¶¶ 70-91. That is, the agency looked at the specific facts to determine whether two market participants were sufficient to constrain prices. In that enterprise market, in 2010, the Commission found that Cox had relatively little market share for enterprise customers, *id.* at 8669 ¶ 88, and that "there [was] no record evidence suggesting that Cox [was] likely to begin providing wholesale connections to mass market customers," *id.* at 8661 ¶ 73; *see id.* at 8669-70 ¶ 88 (competitors had not "deployed facilities that enable effective competition"). The problem, then, was not that two providers could never discipline prices, but rather that Cox was not competing effectively at that time.

As the FCC recognized here, the BDS market today is quite different. *Order* ¶ 121 [ADD-57]. Incumbent carriers are losing substantial market share to cable competitors, resulting in both price reductions and new service offerings to consumers. *Id.* The agency has been consistent, then, in evaluating specific markets to determine whether ex ante pricing regulation is necessary to protect consumers.

C. The FCC Explicitly and Reasonably Declined to Use a Traditional Merger Review Analysis.

The FCC rooted its *Order* in a very lengthy analysis of the competitive BDS market. *See* ¶¶ 10-85 [ADD-8-41]. The Purchaser Petitioners argue repeatedly that the agency's approach was flawed because it was not limited to the methods of analysis developed by courts and the Department of Justice for merger review in antitrust cases. *See, e.g.*, Br. 36, 39-44, 53-56 (arguing that the agency "unreasonably departed from the traditional analysis"). But the Commission was not required to limit itself to such a framework, and it specifically disavowed an intent to do so. *See Order* ¶ 17 [ADD-10] ("[W]e consider market concentration as highly relevant, but do not find it determinative absent consideration of market dynamics."). Instead, the Commission sought to analyze and predict competitive entry in the BDS market while also balancing the potential harm to the public interest from overregulation.

1. ***The FCC sought to balance costs and benefits, not to render a definitive assessment of perfect competition.***

Congress authorized the FCC to "prescribe such rules and regulations as may be necessary in the public interest." 47 U.S.C. § 201(b). As the agency explained, its evaluation of the public interest entails a competition analysis "informed by, but not limited to, traditional antitrust principles designed to protect competition." *Order* ¶ 12 [ADD-9]. In addition to observing the existing market, the FCC "may 'consider technological and market changes as well as trends within the communications industry, including the nature and rate of change.'" *Id.* (quoting *Applications of Comcast Corp., General Electric Co. and NBC Universal, Inc.*, 26 FCC Rcd 4238, 4248, ¶ 23 (2011)). And the agency may "appropriate[ly] . . . balance the costs and benefits of applying ongoing regulation" to specific services. *Id.* Applying this approach to BDS was consistent with the FCC's approach in other contexts, where it has "considered various markets 'in a broader evaluation of competition . . . rather than as steps in a traditional market power review.'" *Verizon Tel. Cos. v. FCC*, 570 F.3d 294, 303 (D.C. Cir. 2009) (quoting the underlying FCC order); *see id.* ("[T]he FCC has consistently considered *both* actual and potential competition in assessing whether a marketplace is sufficiently competitive . . . ."); *Time Warner*, 507 F.3d at 221 (upholding the agency's decision to "refrain from a traditional market analysis and to rely instead on larger trends and predictions"); *EarthLink, Inc. v. FCC*, 462 F.3d 1, 9 (D.C. Cir. 2006) (holding that the FCC acted reasonably, and consistently with precedent, in declining to perform a "traditional market analysis (including market share, demand and supply elasticity, and other factors)").

Here, the agency found that the BDS market is "dynamic with a large number of firms building fiber and competing for this business." *Order* ¶ 2 [ADD-3]. For example, cable BDS has grown some 20 percent annually for several years, and competitive carriers earned $23 of the $45 billion BDS revenue earned in 2013. *Id.* As the agency explained, it is "very difficult" in the BDS market for a regulator to estimate efficient prices and for firms to tariff efficient prices because of the following characteristics: "frequent and often large unforeseen changes in both customer demand for services and network technologies," "a complex set of products and services, which are tailored to individual buyers," "costs of provisions that vary substantially across different customer-provider combinations," and "large irreversible sunk-cost investments that a provider is required to make before offering service." *Id.* ¶ 127 [ADD-59]. In this rapidly evolving and heterogeneous market, "efficient prices" are ideally "tailored to individual purchasers" and "subject to renegotiations that account for changing circumstances"—adaptations that are hampered by ex ante price setting and tariffs. *Id.* In sum, the "high degree of flux" in the BDS market "greatly increases the chances that regulatory error will stifle competition and reduce welfare because it is applied to a circumstance that, without the regulation, may have quickly been overtaken by innovation and/or competition." *Id.* ¶ 129 [ADD-61]. Given those constraints, the FCC found that "the net costs" of price cap regulation in the BDS market are "likely to be large," *id.* ¶ 126 [ADD-59], and that "there is a significant likelihood ex ante pricing regulation will inhibit growth and investment." *Id.* ¶ 4 [ADD-4]; *see Nat'l Ass'n of*

Telecommunications Officers and Advisors v. FCC, 862 F.3d 18, 24 (D.C. Cir. 2017) ("Rate regulation of a firm in a competitive market harms consumers.").

As the agency explained, regulated prices set too low "make entry unprofitable, are harmful to long-run incentives to invest, can lead to inefficient short run levels of production and consumption, and can prevent entry indefinitely." *Order* ¶ 101 [ADD-47]. That stagnation may harm consumers by inhibiting a transition to new technologies—here, the transition from legacy copper telephone networks to high-speed fiber. The agency sought instead to strike "a reasonable balance" that "will foster [that] . . . transition." *Id.* ¶ 99 [ADD-47]; *see id.* ¶ 11 [ADD-8] (quoting 47 U.S.C. § 1302, which requires the agency to "encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans"); *see also Ad Hoc*, 572 F.3d at 908 (citing precedent for the proposition that, under Section 706 of the 1996 Act, 47 U.S.C. § 1302, "the FCC may look to and attempt to shape possible future developments in regulating broadband").

This sort of public interest balancing is not part of traditional antitrust merger review. As the FCC explained, "[t]he ultimate goal of the [competitive market] test . . . is not to definitively determine competitive market conditions but rather to determine on balance which areas are best positioned to benefit from [ex ante] price deregulation and which areas will benefit more from continued price cap regulation." *Order* ¶ 100 [ADD-47]; *see id.* ¶ 124 [ADD-58] (explaining that the competitive market test is "sound" policy "even if [the agency's] market analysis does not result in the perfect regulation of every building in the country—for any administrable rule will necessarily be overinclusive in some cases and underinclusive in others"); *cf. Business Roundtable v. SEC*, 647 F.3d 1144, 1151 (D.C. Cir. 2011) (sound economic analysis requires agencies to consider "cost[s] at the margin" of additional regulation).

The Purchaser Petitioners point out (Br. 59) that the FCC did not quantify this cost-benefit analysis. But in designing the competitive market test, the agency did carefully compare the results of several approaches to weighting under- and overregulation errors. *Order* ¶¶ 138-142 [ADD-64-68]. The Commission ultimately selected a "conservative" threshold that minimized the risk of underregulation, even though the "high costs of regulating this industry" could have supported an approach that minimized the risk of *over*regulation. *Id.* ¶ 138 [ADD-64].[18]

This public interest balancing was the context for the FCC's finding that a nearby competitive provider "generally tempers prices" for lower bandwidth legacy BDS "in the short term and results in reasonably competitive outcomes over three to five years (the medium term)." *Order* ¶ 13 [ADD-9]. The agency was not claiming that all of those markets are textbook examples of competition today, or that such competition would immediately and completely "defeat a price increase" above competitive levels, as the Purchaser Petitioners argue the agency was required to do. Br. 54. Rather, the Commission found only that prices are "tempered," and predicted that current market trends of increasing competition are likely to continue. And the agency found that "[r]efraining from ex ante pricing regulation in these instances where we see active and likely

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[18] In any case, the APA does not require precise calculations in the face of uncertainty. *See GTE Serv. Corp. v. FCC*, 782 F.2d 263, 273 (D.C. Cir. 1986) ("[T]he FCC was required only to *consider* the relevant factors, not quantify them with rigorous exactitude."); *see also, e.g.*, *Charter Commc'ns, Inc. v. FCC*, 460 F.3d 31, 41 (D.C. Cir. 2006) (rejecting a challenge that the FCC "did not clearly spell . . . out" the costs and benefits described in its order); *Nat'l Tel. Co-op. Ass'n v. FCC*, 563 F.3d 536, 541 (D.C. Cir. 2009) (holding that the Commission's cost-benefit balancing was reasonable, if "not elaborate").

medium-term competition developing is the most effective means of ensuring continued development of actual and robust competitive outcomes." *Order* ¶ 124 [ADD-58].

In sum, the agency's analysis that went beyond strict antitrust principles was not an oversight, but an explicit and reasonable feature of its approach, consistent with the agency's statutory responsibility to consider the public interest.

2. *The FCC assessed market concentration and barriers to entry.*

The Purchaser Petitioners' more specific criticisms of the FCC's competitive analysis fare no better. They argue that the Commission ignored a report from the agency's outside expert, Dr. Rysman, who in 2016 had initially found a statistically significant difference between prices with and without competitive providers in the census block. Br. 41; *see Further Notice* ¶ 164 (JA __). But, as the agency explained, "these price changes often became statistically insignificant after implementing changes to the analysis in response to peer reviewers, suggesting that the data are too noisy to draw any firm conclusions." *Order* ¶ 74 [ADD-35]. Indeed, Dr. Rysman recognized that "data and modeling limitations did not allow for a definitive conclusion that incumbent [carriers] were not pricing competitively." *Id.* ¶ 75 [ADD-33].

More generally, the agency reasonably assessed the state of competition in the face conflicting evidence. Some parties had introduced evidence, like that cited by the Purchaser Petitioners (Br. 42), that was intended to show incumbent carriers have lowered prices in the face of close competition. However, "other evidence was presented of dramatic increases in competitive entry, rapid price declines, and service growth." *Order* ¶ 75 [ADD-36]. Indeed, the agency documented at length the rapid growth and dropping prices of BDS in response to cable and other competitive entry. *See id.* ¶¶ 55-65 [ADD-27-29] (investment in networks); *id.* ¶¶ 68-69 [ADD-32-33] (increasing competitive market share); *id.* ¶¶ 70-73 [ADD-33-35] (decreasing Ethernet prices).

In the face of this extended analysis of competition and market share, the Purchaser Petitioners' assertion that the Commission failed to address "market concentration" (Br. 39-41) rings hollow. A section of the *Order* titled "Industry Concentration," ¶¶ 66-67 [ADD-31], also explained that formal concentration measures alone were "poor indicators" of whether market conditions will constrain BDS prices because a nearby competitor can timely expand to reach a customer, and this potential expansion immediately tempers prices, *id.*¶ 67 [ADD-32].

Finally, while the Purchaser Petitioners argue that the agency failed to assess whether future entry will be timely, likely, and sufficient (Br. 55-56), the FCC addressed these issues explicitly. The agency found that "buildout or even its threat would be timely enough to restrain a dominant provider in the relevant market." *Order* ¶ 50 [ADD-25]. It also found that entry is likely where it is profitable, and that competitors use strategies like aggregating demand, circuitous routes, and longer contracts to secure profitability. *Id.* ¶¶ 51-52, 54 [ADD-26]. And it found that the presence of one additional competitor is sufficient to constrain prices. *Id.* ¶¶ 53-54 [ADD-26]. Although the Purchaser Petitioners disagree with these findings and predictions, the Commission's judgments are reasonable and supported by the record.

IV. THE FCC REASONABLY DECLINED TO SUBJECT LOWER BANDWIDTH PACKET-BASED BDS TO EX ANTE PRICING REGULATION.

The FCC's refusal to place price caps on packet-based BDS largely "preserved the status quo." *Stay Denial* ¶ 28 (JA __). It "confirmed previous findings"—upheld on review before the D.C. Circuit—"that[]

injecting heightened regulation into the developing packet-based market . . . would impose an unnecessarily burdensome regulatory framework . . . and could have negative consequences such as chilling investment, inhibiting innovation, and distorting competition." *Id.*; *see Ad Hoc*, 572 F.3d at 909. Under the agency's approach to packet-based BDS in the past decade, there has emerged persuasive evidence of competition, especially from cable, *see Order* ¶ 62 [ADD-30], as well as of "decreases in the prices of packet-based services across all bandwidths," *id.* ¶ 70 [ADD-33]. Particularly in light of these successes, the FCC reasonably chose not to impose price caps on these services. *Id.* ¶ 87 [ADD-41]. The Purchaser Petitioners' challenges to that decision are unavailing.

A. The FCC Reasonably Recognized That Legacy and Packet-Based Services Do Not Require Identical Treatment.

Although the FCC found that legacy and packet-based BDS are part of the same product market from a customer's perspective, it also recognized "important distinctions" between them. *Order* ¶ 26 [ADD-14]; *see also Further Notice* ¶¶ 6, 197 (JA __, __) (acknowledging the services' salient differences). For one, the Commission found, the record did "not show compelling evidence of market power in incumbent [telephone companies'] provision of" packet-based BDS. *Order* ¶ 87 [ADD-42]; *see id.* ¶ 83 [ADD-40]. As the agency explained, "incumbent [carriers] are now on similar footing to entrants" because, like new entrants, they often choose "to meet customer demand" for even lower bandwidth packet-based services by "deploy[ing] new facilities" rather than relying on their more difficult to scale legacy copper networks. *Id.* ¶ 83 [ADD-40]; *see also id.* ("[E]ven a relatively low demand customer today may not be a low demand customer tomorrow, and copper loop generally is incapable of meeting higher demands."). Thus, competitive "entrants are better placed to win customers in packet-based markets than in those for TDM services," where incumbents' existing copper facilities confer a competitive advantage. *Id.* ¶ 88 [ADD-42]; *see also id.* ¶ 129 [ADD-61] (observing that incumbents are "no more expert[]" in new technologies than competitive entrants and may even be wary of "cannibalizing their legacy services" with newer technologies).

Unlike the legacy BDS market, moreover, the market for packet-based BDS was already substantially free from ex ante pricing regulation before the *Order*: All but four relatively small incumbent carriers "had already received forbearance relief" from the Commission's price cap and tariffing rules for their packet-based BDS. *Stay Denial* ¶ 28 (JA __); *see Order* ¶ 87 [ADD-41]. And as noted above, packet-based BDS, unlike legacy BDS, are "readily scalable"—making them a more attractive investment for competitive carriers. *Id.* ¶ 88 [ADD-42]; *see id.* ¶ 83 [ADD-40]. Because packet-based BDS are comparatively "new services," moreover, "experiencing both rapid growth and rapid change in standards," ex ante regulation of packet-based BDS is likely to have higher long-term costs than would be the case for legacy BDS. *Id.* ¶ 88 [ADD-42]; *see id.* ¶ 129 [ADD-61] (explaining why ex ante regulation in "dynamic growing markets" is "counterproductive"); *Stay Denial* ¶ 28 & nn. 88-89 (JA __).

When determining not to apply ex ante pricing regulation to packet-based BDS, including at lower bandwidths, the Commission took account of the above distinctions. *See Order* ¶¶ 87-88 [ADD-41-42]. The Commission also observed that the record's "proposals to apply price cap regulation to packet-based services" seemed "complex and not easily administrable." *Id.* ¶ 87 [ADD-42]. And the Commission underscored that "packet-based telecommunications services"—like legacy BDS—are "subject to the Commission's regulatory authority under [S]ections 201, 202, and 208 of the Act." *Id.* ¶ 89 [ADD-42]; *see* 47 U.S.C. §§ 201, 202, 208. For all of these reasons, and in light of the considerable evidence that cable competition is flourishing, *see supra* pp. 49-55, 58, 68-69, the Commission reasonably excluded packet-based BDS from ex ante pricing regulation.

B. The Petitioners' Challenges Are Unpersuasive.

The Purchaser Petitioners mistakenly claim that the agency "fail[ed] to explain reasonably why products in the same BDS market should be treated differently." Br. 61. As the above discussion reflects, the agency left both legacy and packet-based services subject to ex post regulation, and it detailed several distinctions between the services that justify the decision not to "re-impose" ex ante regulation for packet-based BDS. *Order* ¶ 87 [ADD-41].

In arguing that the *Order* leaves customers in areas with insufficient competition "subject to monopolist rates" (Br. 60), the Purchaser Petitioners further misconstrue the FCC's action. They ignore the availability of the Commission's Section 208 complaint process. And as the *Ad Hoc* court recognized in closely related circumstances, the availability of that "fast-track process" supports the reasonableness of the FCC's chosen regulatory method. 572 F.3d at 909.

Finally, the Purchaser Petitioners incorrectly contend (Br. 61-62) that the record does not support the Commission's determination that competitive carriers are generally willing to deploy new packet-based BDS facilities "beyond their [existing] footprints because they can expect to earn increasing revenues from their initial investment with few additional costs." *Order* ¶ 88 [ADD-42]. As the Commission explained, the copper loop used to provide TDM-based BDS is not readily scalable. *Id.* ¶ 83 [ADD-40]. Packet-based BDS, by contrast, "are easily scaled over fiber." *Id.* ¶ 22 [ADD-12]. Accordingly, as demand for higher bandwidth services increases, "[p]acket based services represent the future of [BDS]." *Id.*; *see, e.g.*, *id.* ("[E]ven a relatively low demand customer today may not be a low demand customer tomorrow."). Indeed, evidence showed that cable providers offering packet-based BDS have already made dramatic inroads into incumbent carriers' market share. *See id.* ¶ 121 & nn.374, 376 [ADD-57]; *see supra* p. 51.

V. The FCC Reasonably Declined to Extend the Interim Wholesale Access Rule for Commercial Voice Platform Services.

A. Origin of the Interim Wholesale Access Rule.

In 2015, the FCC issued an order and further notice of proposed rulemaking concerning the ongoing general transition (not limited to BDS) from legacy networks, which use copper facilities, "to new, all-[IP] multimedia networks using copper, co-axial cable, wireless, and fiber as physical infrastructure." *Technology Transitions*, 30 FCC Rcd 9372, 9373 ¶ 1 (2015) (*Technology Transitions Order* or *Technology Transitions Further Notice*). In that order, the Commission declared that it would not bar incumbent carriers, during the course of the separate BDS rulemaking, from "discontinu[ing] a legacy TDM-based service used as a wholesale input by competitive providers" of BDS or voice services, or from discontinuing TDM-based commercial voice platform services.[19] *Order* ¶ 287 [ADD-123]; *see Technology Transitions Order*, 30 FCC Rcd at 9376-78 ¶ 6. But as a condition of receiving the agency's permission to discontinue pursuant to Section 214 of the Communications Act, 47

[19] Commercial voice platform services "allow competitive [voice] carriers to provide local exchange service without [their own] facilities." *Order* ¶ 287 [ADD-123].

U.S.C. § 214, the Commission determined that incumbent carriers would be required on an interim basis to "provide wholesale access to [IP-based] replacement services . . . on reasonably comparable rates, terms, and conditions to any requesting telecommunications carrier." *Id.* That interim measure was designed to preserve competition until the agency completed the BDS proceeding, and by its terms was set to terminate at that time. *See Technology Transitions Order*, 30 FCC Rcd at 9451, 9443 ¶¶ 132, 141. The Commission rejected proposals to adopt a longer term rule, *see id.* at 9457 ¶ 152, and it emphasized that it was not prejudging the results of the BDS proceeding, *see id.* at 9451-52 ¶¶ 141, 144.

In the *Order* now under review, the FCC declined to extend the interim rule for commercial voice platform services. *See* ¶ 293 [ADD-127]. It found that incumbent carriers are likely to make those services available voluntarily, and that allowing the interim rule to expire will accelerate highly valuable investment in superior facilities. *See id.* ¶ 293 [ADD-127]. As we explain, that decision was well grounded in the record, and the Purchaser Petitioners' challenges to it are unfounded.[20]

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[20] On November 16, 2017, as we were preparing to file this brief, the Commission adopted an order determining that Section 214 of the Act does not apply to the discontinuance of purely wholesale services, even if

B. The FCC's Decision Is Both Consistent with the *Technology Transitions Order* and Well Grounded in the Record.

The FCC reasonably decided not to extend the interim wholesale access rule for commercial voice platform services beyond the rule's scheduled term. *See Order* ¶¶ 287-293 [ADD-123-27]. The record developed since the *Technology Transitions Order*, the Commission found, showed "growing intermodal competition" for incumbent carriers' voice services, leading the agency to predict that incumbents' "once-central role in the voice marketplace" "will continue to diminish" going forward. *Id.* ¶ 292 [ADD-126]. In addition, as the Commission explained, the record showed that even though incumbent carriers are no longer required to make available their entire legacy voice platforms to

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discontinuance will affect service to a carrier-customer's retail end users. *See* News Release, FCC, FCC Streamlines Rules to Speed Transition to Modern Broadband Networks (Nov. 16, 2017), *available at* https://www.fcc.gov/document/fcc-acts-enable-investment-next-generation-networks. This new order reverses a contrary determination in the earlier *Technology Transitions Order*, 30 FCC Rcd at 9428-29 ¶ 102, which formed a necessary predicate to the interim wholesale access rule. The new order further undermines the Purchaser Petitioners' challenge to the Commission's decision to allow that rule to sunset, and may ultimately moot this issue. The order has not yet been publicly released, however; nor has it taken effect. We plan to address the effect of the order in a supplemental filing after its public release.

competitive carriers, they "continue to offer" those platforms "on a voluntary basis under commercially negotiated terms." *Id.* The Commission saw "no convincing reason in the record to assume that the market would operate differently" once carriers transition to IP technologies. *Id.* [ADD-127].

The agency's decision did not rest solely on its predictive judgment that incumbent carriers will make commercial wholesale voice service inputs available in IP voluntarily. *See Order* ¶ 293 [ADD-127]. The Commission also concluded that allowing the interim rule to expire as scheduled would serve the agency's "overarching goal" of "increas[ing] incentives for and remov[ing] barriers to facilities investment and the IP transition." *Id.*; *accord id.* ¶ 288 [ADD-123-24]. The record showed that, "[s]ince the interim rule's inception, no [incumbent telephone company had] filed a discontinuance application that would trigger application of the rule." *Id.* at ¶ 288 n.735 [ADD-124]. The Commission inferred from that fact that extending the interim rule would deter incumbent carriers' "deployment of, and transition to, next-generation network infrastructure and innovative IP services." *Id.* ¶ 288 [ADD-124]. In addition, because "[p]roponents of the interim rule [had] not submitted evidence that they invested in additional facilities" under the rule, the Commission concluded that the rule may have encouraged competitive carriers to "rely on rate-regulated inputs" rather than invest in their own facilities. *Id.* ¶ 288 n.735 [ADD-124].

The FCC's decision to allow the interim wholesale access rule to expire by its terms thus reflects reasonable and reasonably explained predictive judgments that competition will persist without the rule, and that facilities-based investment in new technologies will grow. *See Order* ¶¶ 288-293 [ADD-123-27]. That analysis readily satisfies APA review.

C. The Petitioners' Challenges Lack Merit.

In challenging the Commission's decision to allow the interim wholesale access rule to sunset as scheduled, the Purchaser Petitioners first argue that "the preconditions for expiration of the [rule] established by the *Technology Transitions Order* . . . have not been met." Br. 64. But the petitioners do not contest that the Commission, in the *Order* under review, adopted "rules and/or policies" designed to "ensure [that] rates, terms, and conditions for [BDS] are just and reasonable." *Technology Transitions Order*, 30 FCC Rcd at 9443 ¶ 132. The sole premise of their claim is that "the [competitive market test] and the Commission's competitive analysis of the BDS marketplace are fundamentally flawed." Br. 64. But their objections go to the *substance* of the BDS rules adopted in the *Order*; the petitioners do not seriously question whether the Commission adopted such rules. Beyond that, their challenges to the substance of the BDS rules are meritless, as we have shown above. *See supra* Parts II-IV.[21]

The Purchaser Petitioners next contend that the Commission "disregarded . . . well-founded conclusions of the *Technology Transitions Order*" concerning competitive carriers' need for "reasonable access to wholesale inputs from [incumbent carriers]." Br. 64; *see id.* at 66. But as explained above, *see supra* pp. 74-75, the Commission made clear in the *Technology Transitions Order* that it was not reaching *any* conclusion about competitive carriers' need for guaranteed wholesale access past the completion of the BDS proceeding, *e.g.*, 30 FCC Rcd at 9452 ¶ 144, and that the interim rule would sunset upon completion of that proceeding.

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[21] We note as well that, to the extent the Purchaser Petitioners now suggest (Br. 63) that the interim wholesale access rule was a necessary "regulatory backstop" for "BDS wholesale purchasers," as well as "voice service competitors," that issue was not presented to the Commission during the administrative proceeding, and judicial review is thus barred by statute. *See* 47 U.S.C. § 405(a).

The Purchaser Petitioners also question the FCC's conclusion that "the Wholesale Access Rule may deter [incumbent carriers'] transition to [IP-based technologies]," Br. 65 (internal quotation marks omitted), because AT&T in its February 2017 Form 10-K said that its "transition to IP-based technologies is underway." *Id.* But a carrier's recognition that its transition to new technologies is "underway" does not preclude the possibility that an extension of the interim wholesale access rule would slow the progress of that carrier's transition. Moreover, "one carrier's practices . . . are not demonstrative of the entire market." *Order* ¶ 292 [ADD-127].

The Purchaser Petitioners also contend that the FCC was wrong to compare the interim wholesale access rule to the agency's former "UNE-P" rule, which required incumbent carriers to make their entire legacy voice platforms available to competitive carriers at regulated rates. *See* Br. 65. But the Commission reasonably explained in the *Order* that, insofar as "UNE-P rate regulation was more stringent than the 'reasonably comparable' interim rule, the difference [between those rules] is merely one of degree rather than of kind." ¶ 288 [ADD-124].

Finally, the Purchaser Petitioners mistakenly argue that the Commission lacked sufficient evidence "to support [its] failure to extend the Wholesale Access Rule." Br. 68; *see id.* at 67-68. But as explained above, *see supra* p. 76, the Commission's conclusion that incumbent carriers will continue to make commercial voice platform services available without the interim wholesale access rule was supported by evidence of growing intermodal competition for voice services, as well as the continued availability of legacy voice platforms since the elimination of the agency's former UNE-P rule. Moreover, the Commission reasonably inferred from the dearth of discontinuance applications since the *Technology Transitions Order* that extending the interim wholesale access rule might slow facilities-based investment and the IP transition. *See supra* pp. 76-77.

Taken together, the Purchaser Petitioners' arguments concerning the agency's decision to allow the interim wholesale access rule to expire boil down to a disagreement with the Commission's predictive judgments. Particularly here—where the FCC adopted a time-limited interim rule in 2015, then merely let it expire as scheduled rather than adopting a new rule—the Commission's decision deserves the Court's deference. *Cf. Multicultural Media, Telecom and Internet Council v. FCC*, 873 F.3d 932, 937 (D.C. Cir. 2017) (recognizing that ordinary APA review is "even more deferential" in cases involving "an agency's refusal to promulgate a new rule" (citing *Massachusetts v. EPA*, 549 U.S. 497, 527-28 (2007)).

VI. The FCC's Choice of "X-Factor" Was Reasonable and Reasonably Explained.

The CenturyLink Petitioners support almost all aspects of the FCC's *Order*. They appeal only the agency's chosen "X-factor"—a mechanism used to adjust over time the remaining BDS price caps, to account for gains or losses in BDS productivity. Their arguments have no merit.

A. Background Concerning the X-Factor.

When the Commission first adopted its price cap system in the 1990s, it determined that each carrier's "price cap index" would be adjusted annually to reflect "an escalator based on general price inflation, minus an annual percentage reduction for [telephone companies'] expected savings from innovation and other economies." *NRTA*, 988 F.2d at 178; *see Order* ¶ 198 [ADD-86]. This annual productivity offset is known as the "X-factor." *See id.*; CenturyLink Br. 1.

In 2000, to resolve a variety of disputed issues that included the selection of an X-factor for BDS, the Commission adopted (with some modifications) a proposal by the Coalition for Affordable Local and Long Distance Service (CALLS) to set X-factors that, "unlike prior X-factors, were not productivity-based but collectively acted as 'a transitional mechanism . . . to lower rates for a specified time period.'" *Order* ¶ 199 [ADD-86] (quoting *Access Charge Reform*, 15 FCC Rcd 12962, 13026 ¶ 156 (2000)). As relevant here, the CALLS X-factor "increased from 3.0 percent in 2000 to 6.5 percent for 2001 through 2003[,] but was set equal to inflation beginning in 2004." *Id.* Accordingly, by 2017, price capped BDS rates had "remained frozen at 2003 levels" for more than a decade. *Id.* ¶ 199 [ADD-86]. In the *Order*, as described further below, the Commission determined that price caps for services that remain subject to ex ante pricing regulation should in the future be adjusted annually using a productivity-based X-factor of 2.0 percent. *See* ¶ 197 [ADD-85].

B. The FCC's Ratemaking Analysis Was Reasonable.

"[A]gency ratemaking is far from an exact science." *E.g.*, *Southwestern Bell*, 168 F.3d at 1352 (internal quotation marks omitted); *see Fed. Power Comm'n v. Conway Corp.*, 426 U.S. 271, 278 (1976); *Union Elec. Co. v. FERC*, 668 F.2d 389, 393 (8th Cir. 1981). Of necessity, it involves policy judgments and the exercise of discretion. *See*

Southwestern Bell, 168 F.3d at 1352. The FCC's selection of the X-factor in the *Order* was no exception.

Initially, the agency had to select a methodology for calculating the X-factor. *See Order* ¶¶ 202-206 [ADD-87-89]. The methodology it chose—which the CenturyLink Petitioners accepted—is one that economists commonly use to measure how productivity changes in a specific sector of the economy compare with those in the economy as a whole. *See id.* ¶ 206 [ADD-88-89]. In the context of this proceeding, the Commission sought to compare changes in BDS productivity to growth in the overall economy. *See id.* ¶ 201 [ADD-86].

The Commission had invited comment on what data to use as its measure of incumbent carriers' productivity. *See Order* ¶ 208 [ADD-89]; *Further Notice* ¶ 377 (JA __). The record at the time of the *Order* included five possible datasets. *See Order* ¶¶ 208-209 [ADD-89]. The Commission determined that none of those datasets would enable it "to estimate with precision [BDS] productivity growth relative to growth in the general economy." *Id.* ¶ 216 [ADD-92].

The agency did determine, however, that one dataset—the U.S. Bureau of Labor Statistics' capital, labor, energy, materials, and services data for the broadcasting and telecommunications industries (KLEMS (Broadcasting and Communications))—was "reliable and internally consistent," *Order* ¶ 216 [ADD-92-93]; *accord id.* ¶ 207 [ADD-89], and provided "the best available information under the circumstances," *id.* ¶ 211 [ADD-90]. "[R]ather than postpon[e]" the selection of an X-factor "pending a search for a better [dataset]"—which no party to date had been able (or willing) to supply—the Commission opted to make the best of "difficult circumstances" and derive a reasonable, if not perfect, X-factor using the KLEMS dataset. *Id.* ¶ 216 [ADD-93] (internal quotation marks omitted).

The Commission made its calculations using KLEMS data from four separate time periods, to account for fluctuations in macroeconomic cycles. *See Order* ¶¶ 217-218 [ADD-93]. Those calculations generated "a zone of productivity-based X-factor estimates of between 1.7 and 2.3 percent." *Id.* ¶ 225 [ADD-95].

Various commenters urged the Commission to adjust those figures either upward or downward to account for the overbreadth of the KLEMS dataset. *See Order* ¶ 226 [ADD-95]. Advocates for upward adjustment argued the KLEMS dataset did not adequately capture decreasing per-unit costs in the BDS industry. *See id.* Proponents of downward adjustment—including the CenturyLink Petitioners—claimed that "price cap [carriers] have achieved little productivity growth relative to that in the overall economy," and that "the [lower bandwidth legacy BDS] that will be subject to price caps have not shared in any decrease in per unit costs." *Id.*

The Commission concluded that the record did not enable it to make a definitive choice between commenters' "sharply divergent views on the direction of any possible adjustment" to the KLEMS-derived X-factors. *Order* ¶ 226 [ADD-95]; *see id.* ¶ 231 [ADD-97]. The agency thought it "likely" but not certain that the KLEMS dataset "overstates, rather than understates, [BDS] productivity growth in . . . areas" that will remain subject to price cap regulation under the *Order*. *Id.* ¶ 231 [ADD-97]. But the record lacked the data necessary "to quantify this overstatement (and adjust the zone of reasonableness downward)." *Id.*

The Commission therefore chose not to make any downward adjustment to the range of possible X-factors it had calculated. *See Order* ¶¶ 226, 231 [ADD-95, 97]. But the agency did not ignore the possibility that the KLEMS dataset might reflect an "upward bias." *Id.* ¶ 236 [ADD-

98]. It accounted for the "uncertain effects of bias in the overly-broad [KLEMS] data" by choosing an X-factor at "the average or the mid-point" of the four possible X-factors it had calculated from the KLEMS dataset—2.0 percent—rather than selecting a number at or near the top of that range. *Id.* [ADD-98-99].

The chosen X-factor is well below the 2.3 percent figure the agency could have chosen based on its analysis of the KLEMS dataset. *Order* ¶ 233 [ADD-98]. And the Commission calculated that range using a methodology that the CenturyLink Petitioners do not oppose, as well as the dataset for which they advocated.

The Commission also observed that price caps (which the X-factor serves to adjust) represent only the agency's "tentative opinion about the dividing line between reasonable and unreasonable rates for the limited purpose of exercising [its] suspension power under [S]ection 204 of the Act." *Order* ¶ 216 [ADD-93] (internal quotation marks omitted). The Commission "has not established a *per se* rule" disallowing above-cap rates. *Southwestern Bell*, 168 F.3d at 1353. Rather, any provider that believes that it cannot recover its costs under the governing price cap may seek to tariff higher rates, 47 C.F.R. § 61.49(c), and is entitled to a determination of that tariff's reasonableness within five months, *see* 47 U.S.C. § 204(a)(1). Carriers that believe they cannot operate profitably within their price caps are thus "not left without a remedy." *Am. Pub. Commc'ns Council v. FCC* (*APCC*), 215 F.3d 51, 56 (D.C. Cir. 2000).

C. The CenturyLink Petitioners' Challenges Are Unavailing.

1. The CenturyLink Petitioners contend first that the Commission failed to account adequately for the broad scope of the KLEMS dataset, which was not limited to measuring the productivity growth of lower bandwidth legacy BDS. *See* CenturyLink Br. 21-28. The crux of their argument is that, although the record did not permit the agency to account for the effects of the dataset's overbreadth "with scientific precision," the Commission was nonetheless obligated "to account in some way—even if imperfectly—for the bias in its approach." CenturyLink Br. 28 n.14.

Notably missing from the CenturyLink Petitioners' argument is any acknowledgment that the Commission did account for the overbreadth of the KLEMS dataset by choosing an X-factor "below the top of the zone of reasonableness." *Order* ¶ 233 [ADD-98]; *accord id.* ¶ 236 [ADD-98-99]. Insofar as the CenturyLink Petitioners contend the FCC was required to go further than that and make a downward adjustment to the *range* of possible X-factors, even without sufficient record support to quantify any particular such adjustment, they cite no authority for that claim. *See* CenturyLink Br. 28 n.14. Indeed, numerous cases contravene it.

In *U.S. Telephone Ass'n v. FCC*, 188 F.3d 521 (D.C. Cir. 1999), for example, a long-distance carrier challenged an interstate X-factor because the X-factor was based on a measure of "productivity in all [incumbent carriers'] telecommunications business[,] rather than productivity only in their interstate operations," *id.* at 528. In the Commission's judgment, the available record was insufficient "to quantify the extent, if any, to which interstate productivity growth . . . differ[ed] significantly from total company productivity growth." *Id.* (internal quotation marks omitted). The D.C. Circuit deemed the Commission's "determination . . . enough to justify using . . . total company data," *id.*, without need for adjusting the X-factor to reflect the "theoretical" consideration "of faster interstate productivity growth," *id.* at 529.

Similarly, in the FCC order reviewed in *APCC*, the Commission had set a coinless call rate for payphone calls without "add[ing] any amount to the coinless call fee for [the collection cost of] bad debts." 215 F.3d at 55. The agency regarded the available evidence concerning those costs as "insufficient . . . to enable it to rationally calculate an appropriate figure for inclusion" in the coinless call rate. *Id.* On appeal, payphone service providers argued that the FCC was nonetheless "required to include some estimate of bad debt in its calculation." *Id.* at 56. The D.C. Circuit disagreed, explaining that "[an] agency necessarily enjoys broad discretion to attempt to formulate a solution to the best of its ability on the basis of available information." *Id.* (internal quotation marks omitted). Agencies are not required, the court explained, "to enter precise predictive judgments on all questions as to which neither [agency] staff nor interested commenters have been able to supply certainty." *Id.* In the court's view, "it was prudent and reasonable for the Commission to decide that, on balance, the existing bad debt data was not reliable enough to warrant any educated guess as to future bad debt percentages." *Id.*

At the time of the *Order* here, "[t]he Commission's price cap system [had] been running on autopilot" for more than a decade, "[w]ith no analysis as to why rate levels from 2003 might have remained reasonable despite widespread changes in the [BDS] marketplace." *Order* ¶ 200 [ADD-86]. Particularly given that circumstance, it was entirely reasonable for the Commission to derive an X-factor from the best available data without awaiting better information. *See id.* ¶ 216 [ADD-92-93]; *see also Edison Elec. Inst. v. ICC*, 969 F.2d 1221, 1227 (D.C. Cir. 1992) ("The best should not be the enemy of the good." (alteration and internal quotation marks omitted)); *Nat'l Ass'n of Regulatory Utility Comm'rs v. FCC*, 737 F.2d 1095, 1124 (D.C. Cir. 1984) (observing that agencies need not "independently amass" perfect data, but may and often must "rely[] on the comments submitted during the rulemaking").

2. The same principles answer the CenturyLink Petitioners' contention that the FCC did not adequately account for "the effects of declining utilization" of lower bandwidth legacy BDS. CenturyLink Br. 28; *see id.* at 28-32. As the petitioners concede (CenturyLink Br. 30), the Commission did recognize that decreasing unit costs and overall productivity gains arising from growth in packet-based and higher bandwidth legacy BDS will not necessarily decrease per-unit costs for lower bandwidth legacy BDS in non-competitive areas. *See Order* ¶¶ 229-

230 [ADD-96-97]. But the Commission found the record insufficient "to resolve [commenters'] disputes over price cap [carriers'] productivity growth and ability to recover the costs of serving non-competitive areas with absolute certainty." *Id.* ¶ 231 [ADD-97]. Because incumbent carriers had not provided the data necessary to quantify how much the FCC's KLEMS-based calculations might overstate the productivity growth of lower bandwidth legacy BDS, the Commission appropriately declined to adjust the range of potential X-factors it had calculated downward. *See id.* The agency, nonetheless, did account for "the diminishing [market] share" of lower bandwidth legacy BDS by "select[ing] an X-factor below the top of the zone of reasonableness." *Id.* ¶ 233 [ADD-98].

The CenturyLink Petitioners emphasize (CenturyLink Br. 31-32) the Commission's erroneous statement that "[n]o party [had] submitted an X-factor study or similar data-based analysis purporting to show that the X-factor should be lower than 2.0 percent." *Order* ¶ 235 [ADD-98]. In fact, CenturyLink did make a submission purporting to show that "the maximum permissible X-factor would be 1.06 percent." CenturyLink Br. 31 (citing a report prepared for CenturyLink by Mark Schankerman and Pierre Régibeau (JA __-__) (Schankerman/Régibeau Response)). But the emphasis on that single statement by the Commission is misplaced considering the context of the *Order* as a whole.

As the CenturyLink Petitioners recognize (CenturyLink Br. 31), the Commission did not overlook the submission in question, and indeed repeatedly cited it. *E.g.*, *Order* ¶¶ 206 n.534, 210 n.543, 211 n.548, 214 nn.561-562, 215 nn. 563-565, 222 nn. 577-579, 226 n.580, 233 n.595 [ADD-89, 90, 92, 94, 95, 98].

Furthermore, CenturyLink's economists relied on data from the limited period of 2011-2014. *See* Schankerman/Régibeau Response ¶ 14 (JA __). But the Commission made clear that those years, subsumed within the period 2009-2014, do not reliably predict future productivity growth because they do not "contain [a] complete business cycle" and "only include years of [economic] expansion." *Order* ¶ 223 [ADD-95].

Finally, despite its economists' report, CenturyLink at one point itself indicated to the Commission that it might accept an X-factor as high as 2.1 percent. *See* Letter from CenturyLink Vice President – Regulatory Affairs 5 (JA __) (Oct. 5, 2016).

For these reasons, the *Order* viewed as a whole provides ample support for the FCC's chosen X-factor. This Court should affirm the

Commission's exercise of judgment on this technical ratemaking question, where the agency is entitled to considerable deference. *See FERC*, 136 S. Ct. at 782; *Union Electric*, 668 F.2d at 393 (recognizing that "the 'zone of reasonableness'" in ratemaking "is wide," and that parties challenging a ratemaking order bear a "heavy burden" to show "convincingly that the order is outside the zone of reasonableness").

CONCLUSION

The petitions for review should be denied.

Dated: November 17, 2017

Respectfully submitted,

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STATUTORY ADDENDUM

5 U.S.C. § 553

47 U.S.C. § 201
47 U.S.C. § 202
47 U.S.C. § 208

5 U.S.C. § 553

§ 553. Rule making

(a) This section applies, according to the provisions thereof, except to the extent that there is involved--

(1) a military or foreign affairs function of the United States; or

(2) a matter relating to agency management or personnel or to public property, loans, grants, benefits, or contracts.

(b) General notice of proposed rule making shall be published in the Federal Register, unless persons subject thereto are named and either personally served or otherwise have actual notice thereof in accordance with law. The notice shall include--

(1) a statement of the time, place, and nature of public rule making proceedings;

(2) reference to the legal authority under which the rule is proposed; and

(3) either the terms or substance of the proposed rule or a description of the subjects and issues involved.

Except when notice or hearing is required by statute, this subsection does not apply--

(A) to interpretative rules, general statements of policy, or rules of agency organization, procedure, or practice; or

(B) when the agency for good cause finds (and incorporates the finding and a brief statement of reasons therefor in the rules issued) that notice and public procedure thereon are impracticable, unnecessary, or contrary to the public interest.

(c) After notice required by this section, the agency shall give interested persons an opportunity to participate in the rule making through submission of written data, views, or arguments with or without opportunity for oral presentation. After consideration of the relevant matter presented, the agency shall incorporate in the rules adopted a concise general statement of their basis and purpose. When rules are required by statute to be made on the record after opportunity for an agency hearing, sections 556 and 557 of this title apply instead of this subsection.

(d) The required publication or service of a substantive rule shall be made not less than 30 days before its effective date, except--

(1) a substantive rule which grants or recognizes an exemption or relieves a restriction;

(2) interpretative rules and statements of policy; or

(3) as otherwise provided by the agency for good cause found and published with the rule.

(e) Each agency shall give an interested person the right to petition for the issuance, amendment, or repeal of a rule.

47 U.S.C. § 201

§ 201. Service and charges

(a) It shall be the duty of every common carrier engaged in interstate or foreign communication by wire or radio to furnish such communication service upon reasonable request therefor; and, in accordance with the orders of the Commission, in cases where the Commission, after opportunity for hearing, finds such action necessary or desirable in the public interest, to establish physical connections with other carriers, to establish through routes and charges applicable thereto and the divisions of such charges, and to establish and provide facilities and regulations for operating such through routes.

(b) All charges, practices, classifications, and regulations for and in connection with such communication service, shall be just and reasonable, and any such charge, practice, classification, or regulation that is unjust or unreasonable is declared to be unlawful: *Provided*, That communications by wire or radio subject to this chapter may be classified into day, night, repeated, unrepeated, letter, commercial, press, Government, and such other classes as the Commission may decide to be just and reasonable, and different charges may be made for the different classes of communications: *Provided further*, That nothing in this chapter or in any other provision of law shall be construed to prevent a common carrier subject to this chapter from entering into or operating under any contract with any common carrier not subject to this chapter, for the exchange of their services, if the Commission is of the opinion that such contract is not contrary to the public interest: *Provided further*, That nothing in this chapter or in any other provision of law shall prevent a common carrier subject to this chapter from furnishing reports of positions of ships at sea to newspapers of general circulation, either at a nominal charge or without charge, provided the name of such common carrier is displayed along with such ship position reports. The Commission may prescribe such rules and regulations as may be necessary in the public interest to carry out the provisions of this chapter.

47 U.S.C. § 202

§ 202. Discriminations and preferences

(a) Charges, services, etc.
It shall be unlawful for any common carrier to make any unjust or unreasonable discrimination in charges, practices, classifications, regulations, facilities, or services for or in connection with like communication service, directly or indirectly, by any means or device, or to make or give any undue or unreasonable preference or advantage to any particular person, class of persons, or locality, or to subject any particular person, class of persons, or locality to any undue or unreasonable prejudice or disadvantage.

(b) Charges or services included
Charges or services, whenever referred to in this chapter, include charges for, or services in connection with, the use of common carrier lines of communication, whether derived from wire or radio facilities, in chain broadcasting or incidental to radio communication of any kind.

(c) Penalty
Any carrier who knowingly violates the provisions of this section shall forfeit to the United States the sum of $6,000 for each such offense and $300 for each and every day of the continuance of such offense.

47 U.S.C. § 208

§ 208. Complaints to Commission; investigations; duration of investigation; appeal of order concluding investigation

(a) Any person, any body politic, or municipal organization, or State commission, complaining of anything done or omitted to be done by any common carrier subject to this chapter, in contravention of the provisions thereof, may apply to said Commission by petition which shall briefly state the facts, whereupon a statement of the complaint thus made shall be forwarded by the Commission to such common carrier, who shall be called upon to satisfy the complaint or to answer the same in writing within a reasonable time to be specified by the Commission. If such common carrier within the time specified shall make reparation for the injury alleged to have been caused, the common carrier shall be relieved of liability to the complainant only for the particular violation of law thus complained of. If such carrier or carriers shall not satisfy the complaint within the time specified or there shall appear to be any reasonable ground for investigating said complaint, it shall be the duty of the Commission to investigate the matters complained of in such manner and by such means as it shall deem proper. No complaint shall at any time be dismissed because of the absence of direct damage to the complainant.

(b)(1) Except as provided in paragraph (2), the Commission shall, with respect to any investigation under this section of the lawfulness of a charge, classification, regulation, or practice, issue an order concluding such investigation within 5 months after the date on which the complaint was filed.

(2) The Commission shall, with respect to any such investigation initiated prior to November 3, 1988, issue an order concluding the investigation not later than 12 months after November 3, 1988.

(3) Any order concluding an investigation under paragraph (1) or

(2) shall be a final order and may be appealed under section 402(a) of this title.

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CERTIFICATE OF FILING AND SERVICE

I, Matthew J. Dunne, hereby certify that on November 16, 2017, I caused ten copies of the foregoing Sealed Brief for Respondents to be filed with the Clerk of Court for the United States Court of Appeals for the Eighth Circuit by using pre-paid overnight United Parcel Service delivery. The participants in the case, listed below, will be served a copy of the Brief via email.

The participants in the case marked with an asterisk are not bound by the FCC's confidentiality order that protect the highly confidential information in this brief. They will be served, by email, a redacted copy of the brief that omits the information marked "Highly Confidential."

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