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Too Much Unnecessary Regulation Is Impeding Telecom Investment

by

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I. Introduction and Summary

The telecommunications sector of the U.S. economy is far different today than it was when its principal regulatory structure was created. With respect to telecommunications services, the Communications Act of 1934 was enacted to impose control over perceived monopolies that provided analog services. Its main regulatory structure still largely exists even though today's broadband, digital, and wireless technologies and services do not raise the same regulatory concerns as the technologies and services of the last century.

Without doubt, regulatory controls that have outlived their intended purposes are holding back new investment that otherwise would lead to greater innovation, new competition, and significant benefits for American customers. So it is significant that FCC Chairman Ajit Pai has declared April 2017 to be "Infrastructure Month" as the agency considers several proposals aimed at reducing the cost of broadband deployment and eliminating unnecessary rules that impede its deployment.¹ This focus by Chairman Pai on enhancing infrastructure deployment by curtailing unnecessary regulation is a welcome development. Building out new infrastructure and

¹ Ajit Pai, "Infrastructure Month at the FCC," FCC, March 30, 2017, available at <https://www.fcc.gov/news-events/blog/2017/03/30/infrastructure-month-fcc>.

upgrading existing infrastructure requires encouraging capital investment, yet recently regulatory policies too frequently have done the opposite.

Chairman Pai earlier this year summarized his vision for encouraging broadband investment:

In short, America’s approach to broadband policy will be practical, not ideological. We will embrace what works and dispense with what doesn’t. That means removing barriers to innovation and investment instead of creating new ones. That means taking targeted action to address real problems in the marketplace instead of imposing broad, preemptive regulations. And that means respecting principles of economics, physics, and law and acting with humility as we regulate one of the most dynamic marketplaces history has ever known. This vision will unleash the massive investments that will help the United States realize its 5G future.²

Applying the principles from my previous [Perspectives](#) that explained, as a general proposition, why more regulation means less investment, this new *Perspectives* reviews recent analysis showing how the accumulating regulatory burdens has led to less investment generally in the telecommunication sector. It then applies these principles to three current regulatory issues that have significant implications for telecommunications investment: The *Open Internet* order, small cell wireless network buildout, and the possible re-introduction of price regulation over business data services.

Telecommunications, a sector that should be leading the way in innovation, continues to be too heavily regulated. While some eras are characterized by great regulatory accumulation and others by little or no accumulation, the direction, especially in the last several years of the Wheeler Commission, has been continuously toward imposing more regulatory burdens. Many of these regulations are now outdated due to changes in markets and technologies. Other regulations are overly broad and prescriptive, or not designed to address market failures. Often these regulations were designed to try to anticipate possible harms, even when these harms were unlikely to materialize.

The slow post-recovery growth of the U.S. economy has been accompanied by weak capital investment, which has grown more slowly than in any post-recession period since the Great Depression. As weak as recent economic growth has been in the U.S. economy as a whole, the economy outside the telecommunications sector has outperformed the telecommunications sector, which has fallen from 2.6% of GDP at the end of the last recession to 2.3% in 2016.

Weak growth in the telecommunications sector is a problem not only for telecommunication firms, but for firms and entrepreneurs throughout the economy that depend on telecommunications in their businesses and for their own innovation. As Chairman Pai explained:

² Ajit Pai, “Remarks of Federal Communications Commission Chairman Ajit Pai at the Mobile World Congress,” (speech, Barcelona, Spain, February 28, 2017), available at <https://www.fcc.gov/document/chairman-pais-keynote-mobile-worldcongress-barcelona>.

Today, with a powerful plan and a broadband connection, you can raise capital, start a business, immediately reach customers worldwide, and disrupt entire industries. Never before in history has there been such opportunity for entrepreneurs with drive and determination to transcend their individual circumstances and transform their world.

And achieving this success does not require you to move to Silicon Valley or Stockholm or Seoul or any other tech hub around the world. There are opportunities in every city in every corner of the world, *if* – and this is a big *if* – you have high-speed access to the Internet.³

Several current proceedings before the FCC directly implicate the fundamental question: How to best promote capital investment through regulatory policy? This *Perspectives* will briefly describe the investment issues raised in three of the current policy debates that have significant implications for telecommunications investment: The *Open Internet* Order of 2015, the barriers to small cell deployment needed for the 5G network, and the current rules for business data services (BDS).

The *Open Internet* Order was justified in part by claims that imposing common-carrier rules would not deter capital investment and that innovation among edge providers would flourish.⁴ Instead, the opposite has happened. As Chairman Pai explained: “After the FCC embraced utility-style regulation, the United States experienced the first-ever decline in broadband investment outside of a recession. In fact, broadband investment remains lower today than it was when the FCC changed course in 2015.”⁵ This decline in domestic broadband capital expenditures was \$3.6 billion in 2016, or 5.6%, relative to 2014 levels.⁶

The small cell deployment needed for the 5G network wireless technology is well underway, as wireless access points placed on existing utility poles are replacing tall cell towers. Millions of small cells are needed for the multi-gigabit connectivity for future 5G networks. Small cell technology does not raise the same concerns as large towers, but is covered by the same regulations, and thus is facing regulatory impediments at both the federal and local level. Chairman Pai points out that “the more difficult government makes the business case for deployment, the less likely it is that broadband providers big and small will invest the billions of dollars needed to connect consumers with digital opportunity.”⁷ The FCC is considering ways to expedite state and local approvals, as well as changes to the FCC’s own rules that would facilitate network deployment.⁸

BDS involves network connections over dedicated broadband network facilities to securely move large amounts of data, such as credit card transactions. BDS services were largely

³ *Id.*

⁴ Hal Singer, “Bad Bet by FCC Sparks Capital Flight from Broadband,” *Forbes*, March 2, 2017, available at <https://www.forbes.com/sites/washingtonbytes/2017/03/02/capital-flight-from-broadband-in-the-title-ii-era/#487767de35cf>.

⁵ Pai, *supra* note 2.

⁶ Hal Singer, “2016 Broadband Capex Survey: Tracking Investment in the Title II Era,” March 1, 2017, available at <https://haljsinger.wordpress.com/2017/03/01/2016-broadband-capex-survey-tracking-investment-in-the-title-ii-era/>.

⁷ Pai, *supra* note 2.

⁸ Pai, *supra* note 1.

deregulated in the late 1990s, after the FCC determined they were largely competitive. Today, nearly all of the country is served by multiple BDS providers, with only a small part of the population living in rural areas that lack service providers. For several years, the FCC has been considering imposing new rate controls on this market, even on new entrants, and requiring BDS providers to lease access to their facilities to competitors at regulated rates. This forced sharing will discourage capital investment and eventually will lead to artificial scarcities in the network infrastructure, because providers that own the existing infrastructure will be discouraged from improving the network when they know they will have to lease the improved facilities to their competitors at regulated rates. And investment by new entrants will be discouraged as well so long as they perceive themselves to be the beneficiaries of regulated rates.⁹

The slowing of capital investment in telecommunications markets was notable in the final years of the Wheeler Commission, as the growth of the telecommunications regulatory burden has accelerated. So far, under Chairman Ajit Pai's leadership, the FCC has demonstrated a welcome interest in encouraging new capital investment by eliminating or curtailing those regulations that no longer are necessary. Reducing the regulatory burden on the telecommunications sector promises to unleash capital investment in broadband deployment and the evolving business data services markets, among others, which would give the overall economy a greatly needed boost.

II. The Importance of Telecommunications Investment to the U.S. Economy

The U.S. economy has a capital investment problem. Recent U.S. private business investment has grown more slowly than in any other post-recession period since the Great Depression.¹⁰ Capital investment drives economic growth, which is the primary source of job creation and improvements in workers' productivity and wages.

Slow capital investment in advanced broadband facilities is particularly a problem because of broadband's increasing importance to the economy as a whole. The broadcast and telecommunications sector of the U.S. economy is an important part of the U.S. economy in and of itself, accounting for 2.3% of the U.S. GDP in the first three quarters of 2016. This sector is growing more slowly than the rest of the U.S. economy since the end of the last recession, with its share of GDP dropping from 2.6% of GDP in 2008 and 2009.¹¹

The impact of telecommunication investment spreads far beyond its own sector, affecting many other sectors of the economy. Telecommunications is used by firms in other sectors as a crucial part of their production process, for marketing their products, and for placing orders and credit validation to facilitate business transactions. Innovative new products are emerging, building on the telecommunications facilities created from past investment. As Chairman Pai recently noted: "Broadband has also made many sectors of the economy more productive, from shipping to

⁹ Seth L. Cooper, "FCC's New Regulations Threaten Broadband Investment, The Hill, October 17, 2016, available at <http://thehill.com/blogs/pundits-blog/technology/301276-fccs-new-regulations-threaten-broadband-investment>.

¹⁰ Mark P. Keightley Marc Labonte and Jeffrey M. Stupak, "Slow Growth in the Current U.S. Economic Expansion," Congressional Research Service, June 24, 2016, at 20, available at <https://fas.org/sgp/crs/misc/R44543.pdf>.

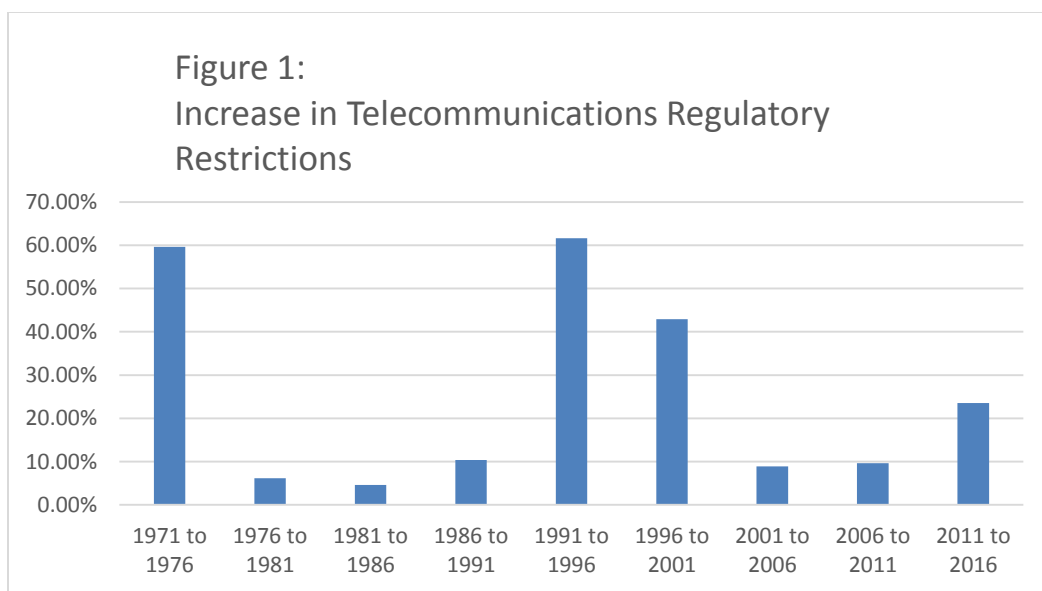
¹¹ Bureau of Economic Analysis, U.S. Department of Commerce, "Industry Economic Accounts Underlying Detail," January 19, 2017 release, available at <https://www.bea.gov/iTable/iTable.cfm?reqid=56&step=2&isuri=1#reqid=56&step=51&isuri=1&5602=5>.

energy. And it's given birth to entirely new industries, like the mobile apps economy, telemedicine, online education, and the nascent Internet of Things.”¹²

III. The Accumulation of Telecommunications Regulations

The U.S. telecommunications sector has experienced ongoing and consistent increases in regulation over time. Figure 1 shows the accumulation of telecommunications federal regulations, using the RegData database, which provides data for telecommunication sector regulations for every year since 1971. RegData measures regulatory restrictions at the industry level at the two, three, and four-digit levels of the North American Industry Classification System (NAICS).¹³

RegData is particularly useful because it is an industry-specific quantification of federal regulation that counts the number of actual regulatory restrictions using text analysis of the *Code of Federal Regulations* (CFR), rather than relying on proxies like the number of pages in the CFR or the *Federal Register*. NAICS category 517 is for the telecommunications industry, and it includes wired and wireless telephone and Internet carriers, including voice over Internet protocols, cable and satellite distribution services, and telecommunications reselling services.¹⁴



Source: RegData for 3-digit Industry Code 517: Telecommunications.

Note: Increase for 2011 to 2016 is from 2011 to 2014, then extrapolated to 2016 to make it comparable as a five-year time period for regulatory change.

¹² Pai, *supra* note 1.

¹³ Al-Ubaydli, O. and McLaughlin, P.A. (2015) “RegData: A Numerical Database on Industry-specific Regulations for all United States Industries and Federal Regulations, 1997-2012.” *Regulation & Governance*, December 16, 2015. RegData uses text analysis to count binding constraints in the wording of regulations, as codified in the Code of Federal Regulations, and to measure the applicability of regulatory texts to different industries.

¹⁴ Bureau of Economic Analysis, U.S. Department of Commerce, “Industries at a Glance: Telecommunications: NAICS 517,” available at <https://www.bls.gov/iag/tgs/iag517.htm>.

Federal regulatory restrictions have increased in the U.S. telecommunication sector in every five-year period in Figure 1, although the increases vary greatly. These increases are net changes in the amount of federal restrictions in the different time periods, taking into account both regulations that are added and regulations that are removed. These increases are limited to changes in federal regulation only, so they do not include regulatory burdens created at the state or local level.

The trend for the telecommunications sector is a steady increase in regulatory accumulation that has never been reversed. Some legislation and FCC regimes resulted in little or no increase, but the accumulated federal regulatory restrictions on the telecommunications sector never decreased in any five-year time period.¹⁵ As regulations are added, the amount of interaction between regulations increases, so that the negative effect of regulatory accumulation results in a compounding effect as new regulations continue to accumulate.¹⁶

Regulation and Telecommunications Investment

In my previous *Perspectives*, I identified four ways that unnecessary or outdated regulations adversely affect the amount of investment. Each of them can be observed with telecommunications regulations.

- First, regulations may discourage new entry and the investments made by new entrants, and may reduce the incentive for incumbent firms to invest once they are protected from new competition. Some regulations directly impede entry through licenses, permits, minimum capital requirements, and other restrictions on new firms. Even regulations that were promoted as encouraging investment by new firms can have the opposite effect. Michał Grajek and Lars-Hendrik Röller, economics professors at the ESMT European School of Management and Technology in Berlin, find that the European Union open access approach “discourages entrants’ individual investment even as entry and total investment by entrants increases. Because facilities-based entry is likely to require substantial firm-level investment, our results are consistent with the view that the regulatory framework in Europe fails to deliver effective incentives to move toward facilities-based competition.”¹⁷
- Second, regulation often creates uncertainty about what the regulation means and how it will be enforced. The possibility of changing regulatory requirements also adds to their uncertainty. Hal Singer, Senior Fellow at the Progressive Policy Institute, notes that in response to the uncertainty created by the FCC’s 2015 *Open Internet* Order, internet service providers (ISPs) “will likely hedge against this new regulatory risk by conserving cash or paying out dividends rather than investing in continued network improvements.

¹⁵ RegData shows some isolated individual years that experienced net decreases in telecommunications restrictions. The most recent decrease was by 0.7 percent in 2006.

¹⁶ See Michael Mandel and Diana G. Carew, “Regulatory Improvement Commission: A Politically-Viable Approach to U.S. Regulatory Reform” (Policy Memo, Progressive Policy Institute, Washington, DC, May 2013), available at <http://www.progressivepolicy.org/2013/05/regulatory-improvement-commission-a-politically-viable-approach-to-u-s-regulatory-reform/>.

¹⁷ Michał Grajek and Lars-Hendrik Röller, “Regulation and Investment in Network Industries: Evidence from European Telecoms,” *The Journal of Law & Economics*, Vol. 55, No. 1, February 2012, 189, 211.

This reduction is not academic: In the few months since the *Open Internet* Order was released, several small ISPs announced their intention to abandon investment plans due to heightened uncertainty injected by the reclassification.”¹⁸

- Third, resources used to comply with regulations are not available for more productive capital investment purposes. Clyde Wayne Crews Jr., Policy Director at Competitive Enterprise Institute, estimates the annual compliance costs for FCC regulations at \$132 billion.¹⁹ Regulatory compliance requirements divert resources that would have been available for investment. Moreover, regulations that do not address market failures, or which outlive their purposes, impose costs that greatly outweigh their benefits.²⁰
- Fourth, firms may move their investment overseas, where the regulatory burdens are lower. In June of 2015, shortly after the *Open Internet* Order was enacted, AT&T announced that it would invest [\\$3 billion in Mexico](#) to extend mobile Internet to 100 million consumers and businesses by 2018.²¹ As a result, the reach of the Internet will be extended in Mexico, while the U.S. economy will lose the jobs and economic activity that would be directly associated with this investment.

The emergence of cross-platform competition for data, video, and voice services presents a particular problem for accumulated telecommunications regulations. The old regulatory structures did not anticipate this competitive development enabled by technological advances and the digital revolution. The result is uneven application of regulation, which discourages investment by the platforms most restricted by regulation. This also potentially reduces the incentive for the less regulated platforms to invest because they may be insulated from cross-platform competition.

Even when regulatory compliance compels more investment spending, it will alter the mix of regulations, which introduces distortions that usually do not produce new or improved goods and services that consumers value more than those they had to give up.²² These types of investments crowd out beneficial investment activity in favor of investments offering fewer benefits.²³

¹⁸ Hal Singer, “Three Ways the FCC’s Open Internet Order Will Harm Innovation,” Policy Memo, Progressive Policy Institute, Washington, DC, May 2013), at 3–4, available at <http://www.progressivepolicy.org/issues/economy/three-ways-the-fccs-open-internet-order-will-harm-innovation/>.

¹⁹ Crews Jr., Clyde Wayne, “Tip of the Costberg: On the Invalidity of All Cost of Regulation Estimates and the Need to Compile Them Anyway,” 2017 Edition, January 8, 2017, available at SSRN: <https://ssrn.com/abstract=2502883> or <http://dx.doi.org/10.2139/ssrn.2502883>.

²⁰ See Patrick A. McLaughlin and Richard Williams, “The Consequences of Regulatory Accumulation and a Proposed Solution Patrick,” Mercatus Working Paper, Mercatus Center at George Mason University, Arlington, VA, February 11, 2014, available at <https://www.mercatus.org/publication/consequences-regulatory-accumulation-and-proposed-solution>.

²¹ Hal Singer, “Does the Tumble in Broadband Investment Spell Doom for the FCC’s Open Internet Order?” Forbes, August 25, 2015, available at <https://www.forbes.com/sites/halsinger/2015/08/25/does-the-tumble-in-broadband-investment-spell-doom-for-the-fccs-open-internet-order/2/#7c9c3e434854>.

²² Richard Williams, “The Impact of Regulation on Investment and the US. Economy,” Policy Briefing, January 11, 2011, available at <https://www.mercatus.org/system/files/House%20Oversight%20Response%20on%20Regulations%20and%20Economy%5B2%5D.pdf>.

²³ John W. Mayo, “Regulation and Investment: Sk(r)ewing the Future for 21st Century Telecommunications?” Economic Policy Vignette, Georgetown Center for Business and Public Policy, Washington, DC, June 2016,

Professor Richard A. Epstein of the New York University School of Law and a member of the Free State Foundation Board of Academic Advisors, summarizes the importance of investment in telecommunication as follows:

The adjudication with respect to our telecommunications systems in the next generation will determine, for better or for worse, whether or not this nation, or other nations, will maintain its energetic drive. Every time tough regulations apply to networks, content providers will benefit to some extent in the short run but at the cost of retarding additional investment in the network itself. Voluntary arrangements are still the best way to determine the optimal way to structure interactions between content providers and carriers outside the control of the regulatory state. In the short term, the battle over the Internet may well look like some form of second-best monopolistic competition. Nonetheless, in the long run, allowing technology to be free from regulation will make the system both more competitive and more efficient. The weight of the evidence supports light-handed regulation.²⁴

Current Regulatory Issues with Investment Implications

Several current issues in telecommunications policy directly implicate the fundamental question: How to best promote capital investment through regulatory policy, including the infrastructure issues described in Chairman Pai's recent statement?²⁵ Investment issues raised in three of the current policy debates – the *Open Internet* Order of 2015, the barriers to small cell deployment needed for the 5G network, and the current rules for business data services (BDS) – are described below.

1. The *Open Internet* Order

When the FCC adopted the *Open Internet* Order in 2015, the “bet made by then-Chairman Tom Wheeler was that investment at the core of the network would not be phased by common-carrier rules, and innovation among edge providers would flourish.”²⁶ Many at the time, including Free State Foundation scholars, questioned this presumption.²⁷ Instead, the opposite has happened. As Chairman Pai explained:

However, two years ago, the United States deviated from our successful, light-touch approach. The FCC decided to apply last-century, utility-style regulation to today's broadband networks. Rules developed to tame a 1930s monopoly were imported into the 21st century to regulate the Internet. This reversal wasn't necessary to solve any problem;

available at <http://cbpp.georgetown.edu/publications/regulation-and-investment-skewing-future-21st-century-telecommunications>.

²⁴ Richard A. Epstein, "Can Technological Innovation Survive Government Regulation?" 36 *Harvard Journal of Law & Public Policy* 87, 97 (2013).

²⁵ Pai, *supra* note 1.

²⁶ Singer, *supra* note 5.

²⁷ See Randolph J. May, "[We Told You So: Title II Regulation Harms Investment](http://freestatefoundation.blogspot.com/2015/09/we-told-you-so-title-ii-regulation.html)," Free State Foundation, September 10, 2015, available at <http://freestatefoundation.blogspot.com/2015/09/we-told-you-so-title-ii-regulation.html>.

we were not living in a digital dystopia. The policies of the Clinton Administration, the Bush Administration, and the first term of the Obama Administration had produced both a free and open Internet *and* strong incentives for private investment in broadband infrastructure.

Two years later, it has become evident that the FCC made a mistake. Our new approach injected tremendous uncertainty into the broadband market. And uncertainty is the enemy of growth. After the FCC embraced utility-style regulation, the United States experienced the first-ever decline in broadband investment outside of a recession. In fact, broadband investment remains lower today than it was when the FCC changed course in 2015.²⁸

This decline in domestic broadband capital expenditures was \$3.6 billion in 2016, or 5.6%, relative to 2014 levels.²⁹ As noted earlier, AT&T also shifted some of its capital investment to Mexico soon after the order. This decline stands in contrast to what happened after the prior “light touch” regulatory policy toward the Internet was upheld by the Supreme Court in *NCTA v. Brand X* (2005).³⁰ In the decade that followed that decision, total broadband industry capital investment totaled approximately \$695 billion.³¹

2. Small Cell Wireless Infrastructure Deployment

Wireless technology is moving toward small cells, or wireless access points that can be installed on existing utility poles and inside buildings in densely populated cities, which are replacing tall cell towers. Millions of small cells are needed for the multi-gigabit connectivity for future 5G networks. In a recent filing, CTIA claimed:

In just seven years, wireless providers spent \$200 billion in network improvements to deliver 4G LTE mobile broadband nationwide.... One recent study estimates that wireless operators will invest \$275 billion dollars over the next decade to deploy 5G to consumers. As a result of that investment, 5G is expected to create three million new jobs in communities of all sizes across the country and boost the U.S. GDP by half a trillion dollars.”³²

This deployment is well underway, but there are regulatory challenges at both the federal and local level.³³ Small cell technology does not raise the same concerns as large towers, but is covered by the same regulations.

²⁸ Pai, *supra* note 2.

²⁹ Singer, *supra* note 7.

³⁰ 545 U.S. 967 (2005).

³¹ Patrick Brogan, “Broadband Investment Gains Continued in 2014: Research Brief,” USTelecom (Chart 2), July 24, 2015, available at <https://www.ustelecom.org/sites/default/files/documents/Investment-2014-Research-Brief-July-2015.pdf>.

³² Comments of CTIA in Response to the Commission's December 23, 2016 Order Seeking Comments on Streamlining Deployment of Small Cell Infrastructure, WT Docket No. 16-421 (March 8, 2017), 6-7.

³³ See Kathy Hoekstra, “Nebraska Bill Would End Cities’ Big Haul for Small Cells, watchdog.org, March 31, 2017, available at <http://watchdog.org/292312/nebraska-small-cells-bill/>.

The FCC is considering ways to expedite state and local approvals, as well as the FCC's own rules.³⁴ Chairman Pai explained the importance of removing the regulatory barriers to small cell deployment and broadband investment generally:

From my perspective, then, the key to realizing our 5G future is to set rules that will maximize investment in broadband. For if we don't, the price could be steep. After all, networks don't have to be built. Risks don't have to be taken. Capital doesn't have to be spent in the communications sector. And the more difficult government makes the business case for deployment, the less likely it is that broadband providers big and small will invest the billions of dollars needed to connect consumers with digital opportunity.³⁵

3. Business Data Services

The FCC is currently considering revising its rules for BDS, which is sometimes called "special access." BDS involves network connections over dedicated broadband network facilities to securely move large amounts of data, such as credit card transactions. These facilities are primarily used by businesses and government entities, and rarely by residential customers.

BDS services were largely deregulated in the late 1990s, after the FCC determined they were largely competitive.³⁶ BDS providers and their business customers negotiate prices, terms of service, and performance guarantees with little government oversight, in the same way that business negotiations occur in other unregulated markets. Today, the vast majority of the country is served by multiple BDS providers, with only a small part of the population living in rural areas that lack service providers.

The current BDS market owes much of its success to private capital investments in the BDS network. Cable operators have also entered the market, and compete on an increasingly large scale with the incumbent BDS providers who created the market. Non-cable competitors also provide BDS services.³⁷ Yet for several years, the FCC has been considering imposing new rate controls on this market, even on new entrants, and requiring BDS providers to lease access to their facilities to competitors at regulated rates.

Justice Breyer explained the problem regarding diminished investment and innovation with this type of mandatory leasing arrangement in his concurring opinion in *AT&T v. Iowa Utilities Board*³⁸:

Moreover, a sharing requirement may diminish the original owner's incentive to keep up or to improve the property by depriving the owner of the fruits of value-creating investment, research, or labor. . . . Nor can one guarantee that firms will undertake the investment necessary to produce complex technological innovations knowing that any

³⁴ Pai, *supra* note 1.

³⁵ Pai, *supra* note 2.

³⁶ Cooper, *supra* note 10.

³⁷ Seth L. Cooper, "Proposed BDS Rate Controls Are Anti-Investment, Arbitrary, and Fact-Challenged, Free State Foundation, November 14, 2016, available at <http://freestatefoundation.blogspot.com/2015/12/regulatory-uncertainty-harms-broadband.html>.

³⁸ 525 U.S. 326 (1999).

competitive advantage deriving from those innovations will be dissipated by the sharing requirement.

It is in the *unshared*, not in the shared, portions of the enterprise that meaningful competition would likely emerge. Rules that force firms to share *every* resource or element of a business would create, not competition, but pervasive regulation, for the regulators, not the marketplace, would set the relevant terms.³⁹

Given a choice between investing in new facilities or leasing facilities at a below-market regulated rate from a cable company or other competitor with an established network, many potential BDS providers will choose the latter. When competing providers have little incentive to build their own facilities, which most likely means not laying new fiber networks that can be used for future 5G applications, any competitive benefits they bring to the market will be short-lived at best, as existing facilities are shared but not expanded. Eventually this will lead to artificial scarcities in the network infrastructure, because providers that own the existing infrastructure will be discouraged from improving the network when they know they will have to lease the improved facilities to their competitors.⁴⁰

Subjecting the BDS market to rate regulation and access mandates will lead to lost opportunities from foregone investment that would otherwise continue to facilitate improvements in the reach of the BDS networks, the quality of service, and the services that can be offered. Moreover, the BDS market has continued to evolve rapidly in an increasingly competitive direction, which is to the benefit of customers in an unregulated market. In fact, the rapidity of change makes it difficult, if not impossible, for regulators to keep up with the data needed to assess the competitiveness of a changing, technologically dynamic market.

Conclusion

Some regulation will always be necessary for addressing certain specific market failures that are not fully addressed in an unregulated market. Too many current prescriptive, overly broad telecommunications regulations, however, were not designed to address market failures but rather to try to anticipate all conceivable possible harms, however unlikely they were to ever materialize. Other regulations have become outdated as markets and technologies changed.

The telecommunications sector is vital to the U.S. economy, both for its size and for the ways other sectors of the broader economy rely on telecommunications in their businesses and for their own innovation. The recent performance of the telecommunications sector lags behind even the recent slow growth in the rest of the U.S. economy. Especially in the last several years of the Wheeler Commission, investment has been discouraged by the heavy and growing telecommunications regulatory burden. Moreover, resources devoted to regulatory compliance are diverted from more productive uses, which generally are much more beneficial to customers.

The newly constituted FCC, under Chairman Ajit Pai's leadership, already has demonstrated its interest in encouraging the deployment of new infrastructure investment by eliminating or

³⁹ *Id.*, at 390.

⁴⁰ Cooper, *supra* note 10.

curtailing those regulations that no longer are necessary. This is an encouraging development for telecommunications investment. At a time when both the telecommunications sector and the broader U.S. economy are experiencing a long period of slow growth, reducing the regulatory burden on the telecommunications sector promises to unleash capital investment that can give the overall economy a greatly needed boost.

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