Claims That the Open Internet Order Impaired Investment Lack Any Sound Theoretical or Factual Basis

ISPs and their advocates—acknowledged and unacknowledged—have made and reiterated claims that the *2015 Open Internet Order* (OI Order) has impaired ISPs' investments since February 2015, when the OI Order was adopted.

Those assertions are incorrect as a matter of theory and as a matter of fact.

Every commercial enterprise's decision to invest and the level of investment undertaken reflects a wide range of factors, including general economic conditions, the cost of capital, the completion of major programs (for example—network upgrades such as LTE), known uncertainties (for example—the lack of standards for future network upgrades such as 5G), and demand forecasts. In other words, investment decisions are never a function of a single factor.

There are techniques that enable analysts to identify major influences with respect to investment and changes in valuation. These techniques, often called "impact evaluations," require a significant amount of data and, even when the requisite data are available, often lead to controversial conclusions. While it is impossible to conduct an impact evaluation in the close aftermath of a triggering event such as the OI Order, examination of major ISPs' statements regarding their investment undermines industry partisans' "instant analysis" claims regarding the impact of the OI Order on investment.

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The OI Order was designed to ensure that Americans reap the economic, social, and civic benefits of an open Internet both today and in the future. Assessing whether the adopted net neutrality regulations have succeeded at doing so, without unduly affecting the dynamic incentives of providers to invest in service quality, is a difficult, yet important, policy evaluation question. In the broader policy evaluation literature, it falls under the heading of *impact evaluation*: answering the question of what "the effect of a program in place now [is] on participants and nonparticipants compared to no program at all or some alternative program", or the "treatment effect" problem.[1]

The treatment effect problem refers to the challenge that a statistical correlation between an outcome of interest—e.g., capital expenditures (capex) by ISPs—and a "treatment"—being subject to net neutrality regulations—cannot necessarily be interpreted as the causal effect of the OI Order on investment. Any other drivers of investment that changed over the time horizon during which the OI Order took effect would similarly be reflected in a before-and-after comparison of investment patterns.

Among the factors and forces that have affected investment levels in the recent past, during which the OI Order took effect, are (not necessarily exhaustive or ordered by importance):

- The cost of capital.
- Demand projections.
- Competitive pressures.
- The timing and completion of the wireless providers' 4G LTE network expansion.

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[1] James J. Heckman, *Micro Data, Heterogeneity, and the Evaluation of Public Policy: Nobel Lecture*, JOURNAL OF POLITICAL ECON., Vol. 109, No. 4, 677 (Aug. 2001).

- The onset of testing, small cell deployment, and network preparation for 5G technologies. A lack of a 5G technology standard, expected to be set in 2018, may impact the scope of such efforts.
- Infrastructure sharing by wireless providers via an increased reliance on tower companies.[2]
- The availability of non-capex based investment opportunities, including the AWS-3 auction and the ongoing Incentive Auction.
- The timing of acquisitions among cable operators.

An early claim that an empirically-based connection could be drawn between the OI order and diminished ISP investment appeared in a casual opinion piece (op-ed) in a business publication.[3] It purported to find critical evidence on the basis of the "investment" experience of major ISPs between January 1 and June 30, 2015, or more precisely over the slightly more than four months between the adoption of the order at the end of February and the close of the second quarter. Taken alone, either the selected timeframe or the selected (implicit) definition of "investment" would preclude the asserted conclusion as a theoretical matter. As it happens, the conclusion also is belied by direct evidence.[4]

The op-ed focused, most prominently, on the "invested capital" entry in AT&T's first half 2015 financial accounts to claim that the Open Internet order diminished AT&T's incentives to invest in its networks. In other words, it used the capital expenditure (capex) financial account as a proxy for investment. The

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[2] The overall level of ISP investment has also been affected by their decision to sell capital-intensive tower assets to tower companies. For the major ISPs, the most recent data indicates that they sold or leased a total of 13,347 towers and sites between Sept. 15, 2007 and Nov. 17, 2015, for a price of approximately $11.1 billion dollars. Any maintenance or upgrades to these assets, which would previously have been booked in the capex account, have now largely shifted to the operational expenditures account in the form of lease payments.

[3] Hal Singer, *Does the Tumble in Broadband Investment Spell Doom for the FCC's Open Internet Order?*, FORBES (Aug. 25, 2015), http://www.forbes.com/sites/halsinger/2015/08/25/does-the-tumble-in-broadband-investment-spell-doom-for-the-fccs-open-internet-order/#76034f562627. This claim was followed almost immediately by affirming statements from conservative commentators associated with the American Enterprise Institute and the Free State Foundation. When this was pointed out by an analyst with the Quello Center at Michigan State University, along with observation that "net neutrality is one of those policy topics where arguments are often driven by ideology and/or competing financial interests," it invoked a ferocious rejoinder. Mitchell Shapiro, *A Reminder Why the Quello Center Net Neutrality Impact Study is Important*, QUELLO CENTER BLOG (Sept. 5, 2015), http://quello.msu.edu/a-reminder-why-the-quello-center-net-neutrality-impact-study-is-important/. The op-ed's investment proposition was included, without citation, in Congressional testimony critical of the OI Order. *Oversight of Fed. Commc'ns Comm'n, Hearing Before the H. Comm. On Energy & Commerce*, 114th Cong. (Nov. 17, 2015) (written testimony of Comm'r Ajit Pai, Fed. Commc'ns. Comm'n), https://www.fcc.gov/document/commissioner-pai-house-commerce-committee-testimony (stating that the decline in investment "represents billions of dollars in lost investment and tens of thousands of lost jobs."); *see also* Ajit Pai, Comm'r, Fed. Comm. Comm'n, Keynote Address at the Heritage Foundation, *The FCC and Internet Regulation: A First-Year Report Card*, 2 (Feb. 26, 2016), https://www.fcc.gov/document/commissioner-pai-remarks-internet-regulation-first-year-report-card ("economist Hal Singer has shown that the Obama Administration has now overseen the first-ever reduction in year-over-year investment by major ISPs that happened outside a recession").

[4] Dr. Singer doubled-down on his analysis in a 2016 blog post. Hal Singer, *Capital Expenditures in Broadband: 2Q-16 Update*, HALL SINGER BLOG (Aug. 11, 2016), https://haljsinger.wordpress.com/2016/08/11/capital-expenditures-in-broadband-2q-16-update/. This post was predictably picked up by the opinion page of the Wall Street Journal. Hal Singer, *Still Paying the "Wheeler Tax"*, WALL STREET JOURNAL (Oct. 5, 2016), http://www.wsj.com/articles/still-paying-the-wheeler-tax-1475708574.

criticism and the proxy device are contradicted by relevant passages in AT&T's most recent annual report.[5]

In his letter to shareholders dated February 12, 2016, Randall Stephenson, AT&T's Chief Executive Officer, said:

> We operate in a highly capital-intensive industry. Leadership over the long term requires consistent, sustained investment. *In fact, over the last 5 years, we have invested over $140 billion, including capital investments in our wireless and wireline networks and acquisitions of wireless spectrum and operations,* to build out one of the most advanced wireless, fiber and IP networks in the world.[6] (Emphasis added)

The italicized text contains two matters of relevance.

First, it defines "investment" to include not merely the moneys assigned to the capital investment account, but also moneys spent on spectrum. This conventional way of understanding investment, the acquisition of assets in anticipation of a positive return, is considerably more accurate as an economic matter than the financial accounting category.

Second, it recognizes investments of over $140 billion over the prior five years, considerably more than the total of "invested capital" over the same period.

In the case of broadband ISPs, expenditures filed in the capex account understate the companies' total investment in an economic sense. As noted, Mr. Stephenson stated that AT&T invested over $140 billion over the period 2011-2015[7]. This compares to $100.9 billion when summing AT&T's capex account levels over the same period.[8] Mr. Stephenson describes the investment figure as including "capital investments in AT&T's wireless and wireline networks and acquisitions of wireless spectrum and operations."

This same definition of investment ("includes capital investment and acquisitions of spectrum and wireless operations") appears in an AT&T autumn 2016 advertising campaign that claimed "$135 billion invested in the AT&T network 2011-2015."[9]

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[5] Because the op-ed relied principally upon AT&T's expenditures, we look at AT&T Inc.'s 2015 SEC filings for verification or, as it turns out, lack thereof.

[6] Letter from Randall Stephenson, CEO, AT&T Inc., to shareholders at 6 (Feb. 12, 2016) http://www.att.com/Investor/ATT_Annual/2015/downloads/att_ar2015_letter_to_shareholders.pdf (AT&T Shareholder Letter).

[7] *Id.*

[8] Total reflects capital expenditures less interest during construction. *See* AT&T Inc., Annual Report (Form 10-K) (Feb. 20, 2015); AT&T Inc., Annual Report (Form 10-K) (Feb. 21, 2014); AT&T Inc., Annual Report (Form 10-K) (Feb. 22, 2013); AT&T Inc., Annual Report (Form 10-K) (Feb. 24, 2012); AT&T Inc., Annual Report (Form 10-K) (Mar. 1, 2011).

[9] *See* AT&T Advertisement, COMMC'NS DAILY, Sept. 6, 2016 at 3; AT&T Advertisement, COMMC'NS DAILY, Sept. 8, 2016 at 9; AT&T Advertisement, COMMC'NS DAILY, Sept. 15, 2016 at 3; AT&T Advertisement, COMMC'NS DAILY, Sept. 22, 2016 at 3; AT&T Advertisement, COMMC'NS DAILY, Sept. 29, 2016 at 7); AT&T Advertisement, COMMC'NS DAILY, Oct. 6, 2016 at 3; AT&T Advertisement, COMMC'NS DAILY, Nov. 17, 2016 at 3; AT&T Advertisement, COMMC'NS DAILY, Nov. 22, 2016 at 3; AT&T Advertisement, COMMC'NS DAILY, Dec. 1, 2016 at 3; AT&T Advertisement, COMMC'NS DAILY, Dec. 8, 2016 at 9; AT&T Advertisement, COMMC'NS DAILY, Dec. 15, 2016 at 3.

More recently, Mr. Stephenson reportedly told President-elect Donald Trump that his company had been the leading investor of capital in the United States for each of the last five years[10] – which, of course, includes the two years since the adoption of the Open Internet rules. And AT&T's President of Network Operations said last summer, "In 2015/16 we're going to deploy about 250% of the capacity that we did in 2013/14, and we're going to do it for 75% of the cost."[11] In other words, ongoing investment is being put to work with new technology so that fewer dollars deliver more connectivity:

AT&T's concept of investment is not an outlier. Verizon's most recent Annual Report describes the same effect.[12] In his letter to shareholders, Lowell McAdam indicates that "[i]n 2015, we invested approximately $28 billion in capital and spectrum licenses to increase the future capacity of our wireless network, fill out our all-fiber network in the Boston-to-New York corridor and enhance our global Internet backbone."[13] Verizon's capex accounting entry for the year is $17.8 billion, demonstrating the fallacy in any effort to use the capital investment financial account as a proxy for investment.

In both the letter to shareholders and in the annual report's Management's Discussion and Analysis of Financial Condition and Results of Operations section (Management's Discussion), AT&T indicates that capital spending, in the narrow "invested capital" financial accounting sense, typically runs at a rate of 15 percent of service revenues, but that 2014 was an anomaly due to increased spending "to build out our wireless, fiber and IP networks."[14] Mr. Stephenson's letter to shareholders says, "[a]s we look out over the next 3 years, we anticipate that our capital spending will continue to run around 15% of our revenues."[15] The Management's Discussion observes that "we expect our capital investment to be in the 15 percent range of service revenues or lower from 2016 through 2018. The amount of capital investment is influenced by demand for services and products, capacity needs and network enhancements."[16]

Three points are of particular relevance:

- The "invested capital" component of investment is expected to continue at normal run rates.
- Any comparison of 2015 invested capital with 2014 (or 2013) invested capital is a comparison of a normal run rate (2015) with anomalous run rates (2013 and 2014). As noted, fundamental objections to trying to understand investment trends on the basis of a single year's observation also stand.
- Capital investment is influenced by multiple factors, and the Management's Discussion did not find regulatory requirements sufficiently material to mention them.

One other fact emerges from the SEC filing. In the event that a serious "impairment" to the value of AT&T's property, plant, and equipment assets takes place, it writes down the value of the assets.

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[10] Comm Daily Notebook®, COMMC'NS DAILY, Jan. 13, 2017 at 14.

[11] Bill Smith, President AT&T Technology Operations, AT&T Services, Inc., Wells Fargo Convergence & Connectivity Symposium, June 21, 2016.

[12] Verizon Commc'n Inc., Annual Report (Form 10-K) (Feb. 23, 2016).

[13] Letter from Lowell McAdam, CEO and Chairman, Verizon Commc'n Inc., to shareholders at 4 (Feb. 2016), http://www.verizon.com/about/sites/default/files/annual/verizon-annual-2015/downloads/15_vz_ar_letter.pdf.

[14] AT&T Shareholder Letter at 6.

[15] *Id.*

[16] AT&T Inc., 2015 Annual Report 26 (filed Feb. 18, 2016).

According to the Notes to Consolidated Financial Statements section, "[w]e periodically assess our network assets for impairment, and our analyses have indicated no impairment."[17]

The lack of an open Internet-related write down is instructive regarding AT&T's actual view of the OI order's effect on its business. When the company thinks that write downs are warranted, it takes them. The fact that no open Internet-related impairments were taken in 2015 stands in contrast to AT&T's determination in 2014 to write down more than $2 billion in property, plant, and equipment because it decided to "abandon in place specific copper network assets classified as cable, wiring and conduit."[18]

As Mark Twain was famously said to have remarked, "The reports of my death are greatly exaggerated." Likewise are the reports of the alleged adverse effects of the Open Internet order on broadband investment. In fact, those reports are flat-out wrong.

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[17] *Id.* at 60.

[18] AT&T Inc., 2014 Annual Report 52 (filed Feb. 20, 2015).