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Revisiting the "Virtuous Circle" Two Years Later

BY DR. GEORGE S. FORD

Two years ago, I authored a piece for Bloomberg BNA entitled *Bait-and-Switch—Or Why the FCC's 'Virtuous Circle' Theory is Nonsense*, in which I described how the Obama Administration's purported economic "theory" for its controversial 2015 decision to reclassify broadband internet access as a common carrier "telecommunications" service under Title II of the Communications Act (an arcane legal regime a rare few understand) made absolutely no sense.

For those unfamiliar with the Federal Communications Commission's "virtuous circle" theory, it goes something like this: (1) "edge" providers such as Google and Netflix invent cool stuff for consumers to use; (2) as consumers use this cool stuff, the demand for better broadband networks correspondingly rises; (3) this increase in demand for broadband drives network operators (the "core") such as AT&T and Comcast to invest in their networks; (4) which, in turn, leads edge providers to innovate further, leading to more demand and network investment, and so forth. In this depiction of the broadband ecosystem, the cycle of innovation and investment is beneficial to all participants and thus self-enforcing. It is, quite simply, "virtuous."

This logic is plausible, and many took (and continue to take) the commission's "virtuous circle" theory as gospel (eventually even including the D.C. Circuit in *U.S. Telecom Ass'n v. FCC*, D.C. Cir., No. 15-1063, (2016), 825 F.3d 674, 2016 BL 188569 (2016) when upholding the commission's *2015 Open Internet Order*. But as I explained in my earlier piece, this theory was not the one used by the commission to justify its aggressive approach to net neutrality regulation.

The root of the problem stems from the commission's central economic assumption that the circle is "virtuous." If so, then what part of virtue needs to be regulated? After all, a truly virtuous circle requires no intervention. Before net neutrality can be regulated, therefore, it must exhibit an "unvirtuous circle"—a market failure in the broadband ecosystem—that the hand of government is required to remedy. The FCC's "virtuous circle" argument contains no defect, and therefore cannot justify corrective intervention.

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Regulating an "unvirtuous circle" may improve matters (or may not), but regulating a "virtuous circle" in ways that intentionally interfere with the natural workings of the market must, by the agency's own theory, lead to reduced broadband investment.

Fast-forwarding two years, the FCC—now under the leadership of Republican Chairman Ajit Pai—recently released a Notice of Proposed Rulemaking in which it contemplates rolling back reclassification. To succeed, the FCC must provide a compelling reason for the change in policy; accordingly, much of the debate is now centering on whether the "virtuous circle" is working.

As empirical questions require empirical answers, over the last several months I have attempted to calculate the effects of reclassification on network investment and, by extension, employment in the telecommunications sector. As I demonstrate below, my predictions printed by this outlet in 2015 have been realized: reclassification has significantly retarded both investment and jobs growth in the telecommunications sector.

Reclassification and Investment Quantifying the investment effects of net neutrality regulation on the dynamic telecommunications industry is a daunting task. For the most part, the heated argument over investment effects thus far has been little more than a tit-for-tat accounting of quarterly or annual changes in capital expenditures of broadband providers. Whether capital expenditures rise or fall—which they must do every year—actually says little about the investment effect of a regulatory intervention. Capital expenditures are determined by many factors, of which regulation is only one. As I detailed in another piece I published with Bloomberg BNA, to determine the investment effect of a specific regulation, we need a "counterfactual"—that is, how much would have investment changed "but for" the intervention?

To quantify investment effects, we need a "treatment date." Treatment dates are easily chosen for surprises, but not for the dreadfully long regulatory process. In

this case, however, empirical evidence provides a clear indicator as to when reclassification became embedded in the financial decisions of the industry and investors.

On May 6, 2010, Chairman Julius Genachowski and his General Counsel Austin Schlick released statements outlining a path to reclassifying broadband as a Title II telecommunications service. The announcement caught investors by surprise; the stock prices of broadband providers fell by about 10 percent in the days immediately following the announcement. Since 2010, the commission held open a regulatory proceeding proposing reclassification, leading then-commissioner Ajit Pai to observe in 2014 (before the reclassification decision the next year), ''the specter of Title II reclassification hovers ominously in the background.'' Between Chairman Genachowski's broaching the subject of reclassification and the time Chairman Wheeler formally made that change in 2015, industry insiders knew that reclassification was on the table and, given the Obama Administration's regulatory proclivities, nearly inevitable. By the time the FCC formally got around to reclassifying, Title II was already baked into most network operators' investment decisions.

With the treatment date properly established, using standard econometric methods and publicly available data, I found sizable investment effects from reclassification. Between 2011 and 2015 (the last year data are available), telecommunications investment differed from the counterfactual by between 20 percent and 30 percent, or about $30 to $40 billion annually. This is a very large effect. Actual investment averaged $126 billion annually, a sizable expenditure, but the counterfactual analysis indicates the average investment over the five-year window would have been about $160 billion (or more) annually had Title II reclassification not occurred. That is, over the interval 2011 to 2015, another $150-$200 billion in additional investment would have been made ''but for'' the regulatory revival at the FCC. According to the data, the U.S. was due an investment boom in telecommunications, but that boom was foreclosed by heavy-handed regulation.

Notably, I also found no decline in investment following the release in 2005 of the FCC's ''Four Principles'' to promote an open internet, suggesting that reclassification—and not net neutrality principles—was the force reducing investment.

Additional analysis of a more limited definition of investment confirmed my earlier work. Investment in equipment and property would have been $20 billion more ''but for'' reclassification.

Reclassification and Employment Building telecommunications networks requires labor, so there is a strong relationship between investment in telecommunications and sector employment. Under normal circumstances, if investment rises, then employment increases; conversely, if investment declines, then employment is reduced.

With the investment effects already quantified (and hugely negative), I set about examining how this reduced investment affected the labor market. Using the Bureau of Labor Statistics' (''BLS'') data on industry employment, I quantified the effect on telecommunications jobs of the Obama Administration's regulatory revival using standard,counterfactual-based statistical methods.

Again, the results are disturbing: Over the period 2010-2016, as the direct result of the Obama Administration's ''regulatory revival'' at the FCC, the telecommunications sector lost approximately 100,000 jobs per year—many of them high-paying union jobs. Given the relatively high wages in the telecommunications sector, this job loss is the pay-equivalent of about 130,000 ''average'' U.S. jobs.

Conclusion The Commission's 2015 Open Internet Order was derided by the commission's own Chief Economist as an ''economics-free zone,'' and with good reason. Obama's FCC, especially under the leadership of Chairman Tom Wheeler, was a post-truth institution in a regulatory frenzy. As a legacy, the regulatory agency's leadership reduced sector investment by hundreds of billions and destroyed 100,000 jobs each year. While historical trends portended a boom in telecommunications investment after 2010, instead the U.S. saw its communications networks barely tread water in terms of capital spending.

Net neutrality is now religion to many advocates. Accordingly, the debate is far from over, regardless of the FCC's actions in the coming months. But if there is a lesson to be learned from the recent past, it is that firms are not passive recipients of regulation. Regulation may have benefits, but it certainly can impose significant costs. As the net neutrality debate amply demonstrates, when the government seeks to set the rates, terms and conditions of service, the regulated firms will adjust their conduct accordingly.

And, as the data make clear, the Obama Administration's regulatory zeal has proven costly.

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