

Overeagerness Does Not Help Close the Digital Divide

Resolving broadband affordability and coverage issues for low-income families requires accurate, reliable data.

By Roger Entner / *Recon Analytics*

There is broad agreement in the U.S. that increasing broadband coverage and making broadband more affordable for low-income Americans is important. To make this point, using less-than-reliable data is unnecessary and counterproductive.

In a recent paper, “How Expensive are U.S. Broadband and Wireless Services?” Thomas Philippon concludes that American consumers pay more for broadband and wireless services than consumers in other industrialized nations. Unfortunately, these conclusions appear to be based on dated, incorrect, omitted or misinterpreted data. The findings are a disservice to the goal of closing the digital divide that exists both in coverage and affordability.

COMPARING WIRED BROADBAND PRICES

Rather than relying on unbiased sources to compare U.S. and European prices, the paper uses data collected by cable.co.uk, an advertising website in the U.K. that tries to convince U.K. customers to buy U.K. broadband services. What expertise this company has in determining U.S. broadband prices (or interest in showing them to be economical) and conducting proper apples-to-apples international price comparisons is not clear.

No data in cable.co.uk’s currently provided spreadsheet allow a reviewer to ascertain that plans of similar quality were sampled in each country. Indeed, it is highly likely that the

quality of broadband services cable.co.uk compares are quite different. In its most recent study, cable.co.uk reports that the plans it sampled from the U.S. had an average price of \$59.99, with a minimum price of \$29.99 and a maximum of \$299.95.

The magnitude of this variation suggests that the sampled plans varied widely in quality (i.e., offered speeds), and it is especially suspicious that cable.co.uk’s computed average price is \$59.99. That this archetypical retail price is an average of 26 observations seems improbable.

The company’s current report on prices also suggests that readers should examine its study of worldwide broadband speeds. The company finds U.S. average speeds to be nearly twice as fast as U.K. speeds (71.20 Mbps vs. 37.82 Mbps). Furthermore, the only listed European countries or dependencies that exceed the U.S. in speed are:

- Liechtenstein (population 38,747)
- Jersey (a British crown dependency, population 107,800)
- Andorra (population 77,142)
- Gibraltar (a British Overseas Territory, population 33,701)
- Luxembourg (population 590,667)
- Iceland (population 356,991)
- Switzerland (population 8.5 million)
- Monaco (population 38,964)
- Hungary (population 9.7 million)
- Netherlands (population 17.2 million)

- Malta (population 460,297)
- Denmark (population 5.7 million people)
- Aland Islands (Swedish-speaking, semi-autonomous region of Finland, population 27,929)
- Sweden (population 10 million)
- Slovakia (population 5.4 million)

It's evident that someone tried hard to increase the count of geographies that have faster speeds than the U.S. by including parts of countries, dependencies, and dutchies into the mix. Nearly all of these are small countries or semi-autonomous regions with populations smaller than a typical U.S. city or state. It is notable that no European country with a population larger than that of the Netherlands makes the list of countries with faster average services than the U.S.

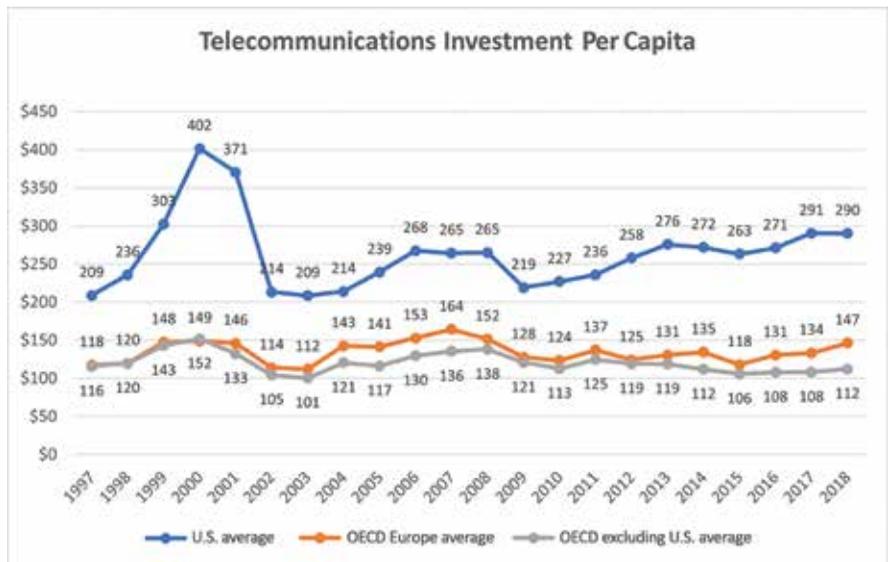
Given that U.S. broadband speeds significantly exceed those in Europe, and the U.S. generally has much lower population densities, higher wages, and significantly higher per-home network deployment costs, it is unremarkable that U.S. prices might exceed European prices because it costs substantially more to deploy these networks.

The scatterplot of cable.co.uk's collected prices appears to be consistent with 2017 prices reported by the Organization for Economic Co-operation and Development (OECD). But four-year-old prices don't seem terribly apposite to debates about the current price and performance quality of broadband in the U.S.

According to USTelecom, a national trade association that promotes broadband, broadband prices in the U.S. dropped significantly over the past six years, and service quality increased dramatically.

After noting that "some of the data measures presented [in the paper about pricing] are a few years old," Philippon turns his concern to critiquing USTelecom's assertion that deployment of advanced networks is further along in the U.S. and subscription to high-speed U.S. networks exceeds European subscription to similar networks.

The paper's response to these findings, which derive directly from



Data provided by the Organization for Economic Co-operation and Development (OECD)

data and official statistics collected for the U.S. by the FCC and for Europe by the European Commission (EC), is to reference a 247-slide presentation posted on the internet (<https://bit.ly/3xoPnLs>). It claims that in 2019, 87 percent of people in the U.S. used the internet, and in Western Europe and Northern Europe, the figures were 92 percent and 95 percent, respectively.

This response has at least two problems. First, even if these data are valid, they focus on geographic subsections. Why not compare these most-developed areas of Europe against U.S. figures strictly for the Northeast or the Pacific coast?

Aside from needing to slice and dice European data to adduce a favorable comparison, the biggest problem is that even if Europeans use the internet, EC DESI data on connectivity show that many are *not using it via a fixed broadband connection*. The EC found that only 78 percent of European households subscribed to fixed broadband in 2019.

It is more than likely that the slide presentation on usage the paper cites included people who use the internet via mobile wireless broadband connections, satellite connections and dial-up internet connections, in addition to fixed-line broadband connections.

In any event, in 2018, 84 percent of U.S. households had fixed broadband subscriptions – and the U.S. advantage over Europe widens when only 30-plus Mbps speeds and 100-plus Mbps speeds are considered.

FIXED BROADBAND SPEEDS

The next topic the paper specifically addresses is fixed broadband connection speeds. For this, the paper refers to slide 52. This slide, the author says, “shows the U.S. is close to the EU median, and slightly below France, in terms of speed.” The first statement appears to be false; the second is immaterial. Let's unpack.

The European countries listed in order of descending speed on the slide are Romania, Switzerland, France, Sweden, Spain, Denmark, the Netherlands, Portugal, Poland, Belgium, Germany, Ireland, the U.K., Italy and Austria. The U.S. slots between Sweden and Spain. Even if the paper meant these comparisons to be against *European* countries rather than *EU* countries, as the paper states, the median European country is Portugal – which lies four positions below the U.S.

If only EU countries are considered, the median position drops another half slot to a position between Portugal and Poland. Though the paper may consider the U.S. position in these lists to be

“close” to the median, Philippon could have noted that the only major EU country ahead of the U.S. was France, with a miniscule (and likely statistically meaningless) speed advantage of 500 Kbps (131.3 Mbps for France versus 130.8 Mbps for the U.S.).

In other words, rather than showing the U.S. to be a laggard in fixed broadband speeds, the paper’s analysis appears to show it significantly in the lead.

LIGHTNING ROUND

The paper goes on to address four main broadband themes: average revenue per user (ARPU), comparable contract pricing, labor costs and profits and investment.

- **ARPU:** The paper claims to look at broadband ARPU for Altice and Comcast in the U.S. and pronounces it significantly above that in France. The validity of the data is highly questionable, though. For example, Philippon claims (without citation) that Altice’s ARPU is \$90 per month. Reference to Altice’s SEC 10-K report (on p. 3) indicates that its residential broadband ARPU is \$70.52, a figure substantially less than Philippon’s unreferenced figure of \$90. Further, Altice is a cable company with a substantial fiber-to-the-home footprint. It reports that the average speed its customers purchased exceeds 300 Mbps – more than twice the average speed French customers experienced.
- **Prices of comparable contracts:** The paper suggests that prices for triple-play services in the U.S. significantly exceed those in European countries. This statistic is likely meaningless because it is well known that the cost of television services in U.S. triple-plays vastly exceeds similar charges in Europe.

This is due to many factors. U.S. bundles typically include many more channels, especially HD channels, than European bundles. Fees U.S. triple-play operators pay to acquire local broadcast channels, sports

channels and other cable television networks greatly exceed those paid in Europe. Indeed, in many European countries, customers pay separately for local broadcast channels via television license fees that are not included in their triple-play bills. U.S. bundles also commonly allow subscribers to watch several programs on multiple television sets simultaneously – in contrast to European bundles that may be restricted to a single TV set stream.

- **Labor cost adjustment:**

The paper argues that because “wages are about 20 percent higher in America than in the main EU countries” and because “compensation of employees accounts for half of the value added in private industries, one might expect [the U.S.] price to be [only] 10 percent higher” than in Europe.

This analysis is not compelling. Even if these national-level statistics are specifically applicable to the U.S. broadband industry, there is no need for wage differences to account for the entire amount of any putative elevation in U.S. broadband prices over European ones. That is, they are only a contributor. The fact that the U.S. is much less densely populated than Europe and U.S. networks provide much higher speeds and carry much more data per household than European networks are also likely contributors.

- **Profits and investment:** This section of the paper contains a mishmash of data that purport that U.S. capital investment is not impressive. But the data presented for “Comcast, AT&T and other Telecom companies” is not an appropriate basis for analysis: many of these companies are diversified into businesses other than broadband. Comcast and AT&T offer television services and own movie studios. Comcast owns theme parks, and AT&T owns legacy copper telephone networks and DBS satellite systems. Consolidated capex figures from these companies are

inadequate to discern broadband-specific investments.

In any event, discussion of the above is probably intended to divert attention away from the best available investment comparator for telecommunications – the data collected by the OECD from national statistical agencies or regulators.

All that the paper appears to say in response to OECD data is to note that since 2015, “investment by the main Telecom operators in Europe has grown rather quickly.” So it has, but so has investment grown in the U.S. – and U.S. per capita investment levels remain at nearly twice those in Europe.

CODA

It’s odd that the paper resorts to such a strange mix of old, wrong, or misinterpreted data to support Philippon’s claim that U.S. broadband is too expensive, and that this can be the result only of a lack of competition. But ignoring the fact that broadband networks are more widely deployed in the U.S. than in Europe, offer higher speeds, carry more data and have more subscribers is the only way the paper can conclude that the European model is superior.

That may be the paper’s conclusion, but it is not the European Commission’s, which has studied these issues directly. The EC’s International Digital Economy and Society Index finds the U.S. scores higher than all but the top EU country (Denmark) and ties with the next two highest EU countries (Finland and Malta). All other EU countries score lower.

The truth is that U.S. fixed broadband leads – not lags – Europe’s performance. Still, many Americans cannot access or afford broadband internet. Addressing that disparity should be a policy focus, and it’s not necessary to overstate the differences to come to that conclusion. ❖

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