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**Zero-Rating as Exclusionary Conduct**

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Introduction

If you live in the United States, you probably have never been faced with alarming messages regarding how much available data you have left in your mobile phone plan. A recent survey shows that 43% of Americans who own a smartphone have unlimited data plans with their mobile network operators (“MNOs”). Users can send messages via iMessage or Whatsapp and post pictures on Instagram or Facebook without worrying about overriding their monthly data allowance.

The large number of American mobile phone subscribers with unlimited data plans is particularly interesting because the United States is on the bottom end of the price per gigabyte rank. Whereas one gigabyte costs $0.09 in India, the most affordable country, the same amount of data costs $8.00 in the United States. Even though the world has seen a drastic reduction in the cost for mobile data, consumers in the United States pay four times more for a gigabyte than the rest of the world. However, the United States is ranked at 7th in GDP per capita ($63,416.00), according to the World Bank, while India is ranked 128th ($6,461.00). Generally, data in wealthy countries tend to be more expensive, considering that the costs of operating a network is higher and the population can afford more.

In countries where the price per gigabyte is lower but the average income is also lower, a cellular data plan represents a more significant burden to an individual’s budget. It is also not common that users will be able to pay for unlimited data plans, that tend to be the most expensive plans offered by a carrier. This is particularly true in developing countries. Brazil is an interesting example. The country is ranked among the Top 10 economies of the world, has a GDP per capita of around $14,000 and a gigabyte costs $1.01. Nonetheless, only 6% of the Brazilian cell phone users have an unlimited data plan. Most of the Brazilian customers have limited data plans: 40% have contracts that allow for up to 5GB of data and 10% use a prepaid service.

The numbers are important to demonstrate that underserved countries and communities are more vulnerable to the possible adverse effects caused by zero-rating policies. In countries such as India and Brazil, in which the data unit is less expensive, but the consumers are also less wealthy, schemes such as zero-rating play a crucial role. Zero-rated applications and content are those that end users access without data being withdrawn from their mobile plan allowances or data caps imposed by the telecom carrier. Telecom carriers know that consumers spend more data surfing specific mobile applications than others. To attract more consumers, the carriers will offer such

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1 Alexander Kunst, How large is your monthly data volume according to your main smartphone contract?, STATISTA (2022).
2 Carmen Ang, What does 1GB of mobile data cost in every country?, VISUAL CAPITALIST (2020).
4 Alexander Kunst, Mobile data plan in Brazil 2021, STATISTA (2022).
apps at no charge for the consumers – no data would be withdrawn from the consumers’ plan. This is particularly important – and attractive – to consumers who have a limited data plan. “A zero-rated edge service therefore becomes more attractive to the consumer as compared to a non-zero-rated service, other factors held constant, because is costs less.”

The strategy is also appealing to the app developers. The policy possibility of zero-rating benefits the app developers who are able to establish a relationship with telecom carriers. “As a result, these app developers are able to infiltrate their brands into developing markets and access the large customer bases of MNOs.” On the other hand, “if an app developer is unable to forge a partnership with an MNO, that app developer will likely be subject to considerable hurdles.”

In the United States, the discussion regarding zero-rating has been mostly centered on the question of whether or not such policies violate net neutrality principles. As much as it is a valid and important discussion, I focus this contribution on the possible anticompetitive effects that may arise from zero-rating policies. My intention with this contribution is to provoke the discussion on how to address zero-rating from an antitrust policy perspective, explaining what I envision to be potential concerns in the antitrust and competition field. I show that zero-rating is a more pressing issue in countries in development, but there are no reasons to believe the United States is immune from the harms that may arise from it, not only in the antitrust realm. I propose a roadmap for agencies to assess whether a specific zero-rating scheme has the potential to distort competition and propose possible solutions to deal with it.

1. Zero-Rating as an Antitrust Issue

Zero-Rating is not new in the United States. The 2015 Open Internet Order, for example, does not accept zero-rating as a per se violation of antitrust violation. It has been acknowledged by the FCC that business models based on zero-rating may be pro-competitive and provide consumer

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6 Rebecca Curwin, Unlimited Data, but a Limited Net: How Zero-Rated Partnerships between Mobile Service Providers and Music-Streaming Apps Violate Net Neutrality, 17 COLUMBIA SCI. TECHNOL. LAW REV., 222 (2015). (“Zero-rating presents a complex tradeoff for MNOs. On the one hand, zero-rating is advantageous for MNOs. MNOs hope that the zero-rated content will come with marketing benefits – the promotion of prominent companies such as Spotify – and thereby induce users to initiate more profitable plans. Additionally, MNOs can use zero-rating to provide free content, which makes their networks more attractive to consumers.”

7 WIRELESS TELECOMMUNICATIONS BUREAU, supra note 6 at 2.

8 Curwin, supra note 7 at 222.

9 Id.

benefits. The analysis of zero-rating as a potential anticompetitive conducted is to be conducted under the rule of reason framework.

Following the 2015 Order, a report released by Wireless Telecommunications Bureau (“WTB”) of the Federal Communications Commission (“FCC”) in 2017 reviewed sponsored data and zero-rating practices in the mobile broadband market. In a letter penned to members of the United States Congress in January 2017, Tom Wheeler, chairman of the Federal Communications Commission (“FCC”) at the time, explained that the report “puts forward a draft framework for evaluating zero-rating offerings generally. It reaffirms that the core principles of consumer welfare and competition must be considered when determining whether an offering violates the general conduct standard.”

The Policy Review of Mobile Broadband Operators’ Sponsored Data Offerings for Zero-Rated Content and Services (hereinafter “Policy Report”), conducted by the WTB, analyzed four different sponsored data plans in 2016: (1) T-Mobile Binge On, (2) AT&T Data Perks, (3) AT&T Sponsored Data and (4) Verizon FreeBee Data 360. The review was managed under the General Conduct Rule provided by the 2015 Open Internet Order. The WFB evaluation focused on potential harmful effects on consumers and competition in “downstream industry sectors that could result from upstream network operators’ unreasonably discriminating in favor of select downstream providers that are affiliates.”

11 Id. at 19758 (“151. While our bright-line rule to treat paid prioritization arrangements as unlawful addresses technical priorization, the record reflects mixed views about other practices, including usage allowances and sponsored data plans. Sponsored data plans (sometimes called zero-rating) enable broadband provider content from end users’ usage allowances. On the one hand, evidence in the record suggests that these business models may in some instance provide benefits to consumers, with particular reference to their use in the provision of mobile services. Service providers contend that these business models increase choice and lower costs for consumers. Commenters also assert that sophisticated approaches to pricing also benefit edge providers by helping them distinguish themselves in the marketplace and tailor their services to consumer demands. Commenters assert that such sponsored data arrangements also support continued investment in broadband infrastructure and promote the virtuous cycle, and that there exist spillover benefits from sponsored data practices that should be considered. On the other hand, some commenters strongly oppose sponsored data plans, arguing that ‘the power to exempt selective services from data caps seriously distorts competition, favors companies with the deepest pockets, and prevents consumers from exercising control over what they are able to access on the Internet,’ again with specific reference to mobile services. In addition, some commenters argue that sponsored data plans are a harmful form of discrimination. The record also reflects concerns that such arrangements may hamper innovation and monetize artificial scarcity.”)

12 The balancing of effects that require the use of the rule of reason is summarized by Rob Frieden, The Mixed Blessing in Subsidized Internet Acces, 15 COLO. TECHNOL. LAW J., 274 (2017). (“Zero-rating opponents consider subsidies an attractive Trojan horse that inspires interest in accessing the Internet, but only in ways that perpetuate the status quo and favor powerful incumbents. The emphasis on market definition and societal control ignores how zero-rating can promote universal broadband access. Broadband subsidy advocates believe zero-rating absolutely generates consumer welfare enhancements, despite the fact that underwriters fully expect to accrue a return on their investment.”)”

13 WIRELESS TELECOMMUNICATIONS BUREAU, supra note 6.

14 Id. at 10. (“The General Conduct Rule prohibits practices that unreasonably interfere with or unreasonably disadvantage end users’ ability to select, access, and use broadband Internet access service or the lawful Internet content, applications, services, or devices of their choice, or that unreasonably interfere with or unreasonably disadvantage edge providers’ ability to make lawful content, applications, services, or devices available to end users.”)

15 Id.
The analysis of the four data programs found that T-Mobile’s Binge On and AT&T’s Data Perks did not discriminate against, unreasonably interfered with, or disadvantaged any edge providers. Thus, no competitive concerns were raised in relation to those two programs. However, the conclusion for AT&T’s Sponsored Data and for Verizon’s FreeBee data plans was different.

The Sponsored Data program was designed by AT&T to allow third party edge providers to deliver streaming content a zero-rating basis to subscribers of the carrier’s mobile broadband. The policy review raises concerns related to AT&T’s possible discriminatory behavior towards third parties in comparison to the conditions offered to its wholly owned affiliate, DirecTV. To increase the concern, AT&T did not provide meaningful information to the WFB. The Requests for Information did not address the most pressing issues related to the carrier’s concern. However, the information gathered by the WFB supported the conclusion that AT&T’s arrangement would likely “obstruct competition for video programming services delivered over mobile Internet platforms and harm consumers by inhibiting unaffiliated edge providers’ ability to provide such service to AT&T’s wireless subscribers.”16

The WTB’s concerns is mainly based on the fact that unaffiliated third parties must pay an amount of money to offer zero-rated streaming video programming to AT&T’s subscribers. On the other hand, AT&T does not need to incur in any extra expenditure, as DirecTV is part of the company. The review then argues that AT&T’s treatment to third party providers is not only different, but also imposes unreasonable disadvantages on the competitors.17 Also, AT&T’s gatekeeper control, as the broadband operator, capable of restricting the ability of edge providers to distribute the services by alternative means, and the incentives to disadvantage the edge businesses that compete head-to-head with affiliates in the downstream market, are of what gives rise to vertical competition concerns in this case.

The concerns with Verizon’s program are similar. “We are aware of no safeguards that would prevent Verizon from offering substantially more costly or restrictive terms to enable unaffiliated edge providers to offer services comparable to Verizon’s go90 on a zero-rated basis.”18 The only caveat in Verizon’s is that go90 was, at the time, a nascent service, offering a limited library of content to the subscribers, whereas AT&T’s DirecTV Now was a more established streaming service, potentially viewed by the demand side as a substitute to services such as Netflix and Hulu. Nonetheless, Verizon’s FreeBee data plan left room open for discriminatory conduct in favor of affiliated services in the downstream market.

As explained above, the Policy Report focused on zero-rating and data-sponsoring arrangements in which the broadband provider was affiliated in some level with the edge provider benefited from the agreement. That is, there was a vertical integration between the broadband and edge provider, they were not two separate and independent bodies. This paper, on the other hand, explores the zero-rating agreements in which the broadband and edge provider are not affiliated at all. Their

16 Id. at 13.
17 Id. at 16. (“All indications are that AT&T’s charges far exceed the costs AT&T incurs in providing the sponsored data service. Thus, it would appear the AT&T’s practices inflict significant unreasonable disadvantages on edge providers and unreasonably interfere with their ability to compete against AT&T’s affiliate, in violation of the General Conduct Rule.”)
18 Id.
cooperation under a zero-rating agreement is reached on basis of a business transaction in which both sides seek to increase their benefits. Telecom carriers that provide zero-rated access to messaging apps, social media platforms or specific streaming services are an example. The following sections expand the notion of zero-rating as an antitrust violation, both under Section 1 and Section 2 of the Sherman Act.

2. Zero-Rating Under Section 1 of the Sherman Act: Combination in Restraint of Trade

Zero-rating arrangements can potentially be understood as a combination in restraint of trade, violating §1 of the Sherman Act. Broadband carriers, edge providers and app developers come together to form an agreement that has the potential effects of promoting market foreclosure for competitors in the markets for applications as well as the market for telecom consumers.

A zero-rating agreement between an MNO and an edge provider benefits both sides. The broadband carrier adds an additional feature to its portfolio of consumer advantages, while the edge provider can attract more customer to its app by letting them know that no data will be withdrawn from the mobile plans. The agreement can also exclusivity features from both sides. The MNOs may demand that the edge provider refrains from entering into other zero-rating agreements, whereas the edge provider may demand that the carrier does not agree to offer zero-rated access to any other competing application.

This last feature also resembles what is known as a concerted refusal to deal: the agreement of two or more persons not to deal with a third. In zero-rating situations, the carrier and the edge provider agree not to provide services on the same terms to other competitors. There is a refusal to deal inputs to competitors, in order to prevent competitors from developing.

3. Zero-Rating Under Section 2 of the Sherman Act: Monopolize or Attempt to Monopolize

Section 2 of the Sherman Act is concerned with conducts capable to monopolize a relevant market. Zero-rating is a strategy can fall within the standards of §2. For the purposes of this paper, I identify three theories of harm related to zero-rating arrangements and that could potentially be considered as violations of Section 2 of the Sherman Act.

Zero-rating can be considered an exclusionary conduct because it has the potential to foreclosure the market for competitor by raising rivals’ cost (RRC). Contrary to the paradigm of predatory pricing, “RCC produces profits to the strategizer immediately, and nothing so catastrophic as a firm’s forced exit from the market need to happen.” RRC is not an anticompetitive conduct by itself, but rather a framework of analysis for several conducts, including tying arrangements, concerted refusals to deal, exclusive dealing and discriminatory pricing. The basic claim under the RRC framework of analysis is that a monopolist or dominant firm engaged in action that deprived competitor from accessing critical inputs or customers, “causing them to raise their prices

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20 Id. at 350.
21 Id. at 351.
or reduce their output, thereby allowing the excluding firm to profit by setting a supracompetitive price, with the effect of harming consumers."

In the context of zero-rating agreements, the analysis is somewhat peculiar, because customers do not experience higher prices by the incumbent. Instead, the incumbent’s strategy raises the entrant’s necessary investment to effectively enter the market. If the incumbent edge provider of a certain relevant market has a captive audience under zero-rating agreements with MNOs, the entrant will be forced to also seek similar agreements to effectively compete with the incumbent and expand its user base. Simply put, a new edge provider will have to spend more resources to enter the market. It would need to find a MNO to partner with and also offer zero-rating to the MNO’s customers, for example.

The previous point is also related to another harm arising from zero-rating: the higher switching costs imposed on users. Zero-rating reduces the incentives for a user to switch from the incumbent platform or edge provider to the entrant. This is so because the user is not charged for the data necessary to navigate in the incumbent’s platform due to the presence of zero-rating agreements.

Moreover, multihoming would not be a solution for the problem. Considering that users benefitting from zero-rating do not spend their data to access the incumbent platform, it is unlikely that users would be willingly to pay more to access an entrant platform. Multihoming is not viable because the edge providers are not competing on the same economic terms.

On October 4, 2021, Facebook, Whatsapp, and Instagram suffered a six-hour outage that frustrated millions of users. What I noticed during the blackout was that my colleagues originally from developing countries – i.e., Colombia, India, the Philippines – were more affected by it than my peers from developed countries. It seemed that the latter could more quickly switch to a different messaging service (Signal, Telegram, iMessage) to reach their contacts, whereas the former were locked into Whatsapp. Multihoming was not a possibility due to the large costs of data and the agreements that provided zero-rated access to Whatsapp. It was intriguing to see how much the socio-economic disparities in the globe reflected on how dependent a population could be on technological solutions offered by a single company. The lack of adequate regulation contributes to this situation of dependence on communication apps developed by a single corporation.

A third possible harm associated with zero-rating is the resulting concentration of data and information on a single edge provider. It has been argued that companies like Google have the incentives and ability to “deny scale to its smaller competitors or potential competitors, not just gain scale for itself.” The same can be said of the leaders in the markets for social media or music

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23 Consider a hypothetical. Facebook has a zero-rating agreement with AT&T, according to which the carriers’ subscribers access to Facebook is not charged from their data plans. Suppose that a new entrant attempts to enter the market for social media applications. The entrant also offers a zero-price platform, such as Facebook. However, the entrant does not have a zero-rating agreement in place. In the absence of unlimited data plans, users would have their data allowances charged when switching to a new platform. This would reduce the incentives for a user to multihome.

streaming. They wish to gather as much data as possible, from as many users as possible. By employing zero-rating agreements, such edge providers engage in strategies capable of denying access of competitors to a significant user base. As explained above, zero-rating incurs in foreclosure of the market and raise the switching costs to users. Thus, incumbents benefitting from zero-rating agreements can collect a larger amount of data, reinforcing feedback loops that makes the platform more attractive to customers and advertisers.\textsuperscript{25}

\section*{4. Zero-Rating and Access to Reliable Information}

Zero-rating is also capable of causing non-economic harms to consumers. As previously shown, the population of poorer countries are more subject to the undesirable effects of zero-rating policies. It is important to mention Internet access in such countries happens mostly via mobile devices. A wide census conducted in Brazil in 2019 found that 83\% of households have Internet access. The more critical information, however, is that 99.5\% of those households have the mobile phone as the primary form of internet access. Additionally, 95\% of the polled stated that text messaging was the principal reason for accessing the Internet.

In countries where the main gateway to the Internet access is the cell phone and there is a lack of Internet infrastructure – namely, wireless connection – and the cost for data represents a significant burden for the individual, zero-rating schemes play a significant role in the dissemination of information.

Social media platforms have become the primary source of news for several users. Facebook and Whatsapp are particularly important – and a fertile ground for the dissemination of fake news. If a user cannot afford mobile data to access verified news source, the user will only have access to news shared on platforms that do not charge for mobile data. Safe to say, the issue of misinformation is not exclusive to poorer countries. The United States have also suffered from the dissemination of fake news through social media platforms, particularly during elections cycles. Zero-rating arrangements have the potential to amplify the problem.

To tackle this issue, edge providers should be subjected to a regulatory trade-off. Digital platforms and broadband carriers should provide zero-rated access to fact-checking agencies and government websites. For example, during the Covid-19 pandemic and the constant misinformation spread on digital platforms, the parties to the zero-rating agreement should also have been required to provide zero-rated access to websites such as the Center for Disease Control and Prevention (“CDC”) official page.

The recent \textit{Facebook Files} published by the Wall Street Journal exposed Facebook’s conduct pattern of not acting to avoid harm to its users, even when the company had sufficient data on the issue and was well aware that users would be negatively affected. Piecing together the effects of the October 2021 outage on poorer countries and the information revealed by the Facebook Files,

\footnote{\textsuperscript{25} Morton and Dinielli, \textit{supra} note 25. (“In economic terms, the increase in scale leads to an increase in quality, and the increase in quality leads to further increases in scale. And while this ‘feedback loop’ is playing itself out, of course, the engine becomes increasingly more attractive to advertisers and can charge increasingly high prices for advertisers.”)}
it appears to be clear that developing countries are indeed more prone to destructive effects arising from the exercise of market power from platforms. Zero-rating only reinforces the market power.

The regulatory approach to the undesirable effects of zero-rating should bear in mind not only their exclusionary effects and other harms to competition, but also non-economic harms such as facilitating the dissemination of misinformation. A concentrated market with high barriers to entry represents a significant risk to a population that uses mobile communications apps as its primary (if not only) mean of Internet access.

5. A Roadmap to Assess Zero-Rating

As mentioned above, zero-rating is not necessarily harmful to the consumers and competition. However, a case-by-case analysis is necessary to assess the potential competitive damage caused by the policy. I now outline a possible roadmap to assess the potential anticompetitive effects of zero-rating agreements. The roadmap can be used by the relevant regulatory agency – the FCC – as well as the antitrust agencies.

Step 1. Verify who is providing zero-rating arrangements, on both sides of the contract. Arrangements involving broadband carriers that enjoy a substantive market share (greater than 20%) are to be considered more prone to promote harmful effects in the market. In the same, agreements in which the edge provider is itself a market leader should also receive greater attention from the antitrust authorities. This step is essential to attest the ability of the involved players to promote anticompetitive conducts in the relevant markets involved.

An additional feature relative to the first step is to verify whether there is more than one edge provider being favored by zero-rated content. If an incumbent and an entrant are both benefiting from a zero-rating arrangement, chances are the agreement has a reduced anticompetitive potential, because a new entrant is also benefitting from it.

Step 2. The length of zero-rating agreements is particularly important to assess potential antitrust harms. Longer contracts tend to entrench the market power position held by an incumbent, because it is more difficult for an entrant to timely bid more or submit a better offer for the telecom carrier. Shorter contracts are renewed more often and every renewal is an opportunity for the entrant to overtake the contractual position held by the market leader.

Step 3. Check whether consumers can choose applications would she like to be zero-rated when signing up for a new mobile plan with a broadband provider. That is to say, the consumer is given the freedom to choose which application she would like to use without draining data from her mobile plan. The idea here is that such agreements in which the consumers is given the possibility to choose would be less harmful than those in which the consumer is coerced to take the available product. It may well be that a particular consumer is not interested in the application offered as a bundle in her mobile plan. However, once the plan is activated and the user starts to navigate the app without being charged for it, the edge provider is already benefitting by expand its user base and network effects. A zero-rating agreement can also serve as an effectivity distribution channel of an application to achieve more data collection.
Step 4. Assess if consumers can opt-out of mobile plans that offer zero-rated access to a particular application. The idea is that if the user does not see value in the app being offered, she would be able to opt-out of the arrangement and receive a reduction in the monthly payment for the mobile plan. This would potentially avoid that edge providers achieve a higher user-base and network effects only because it is the free and default application in a mobile plan.

6. Proposed solutions

Considering the concerns outlined above, I propose four remedies to tackle the potential anticompetitive concerns raised by zero-rating arrangements.

First, the FCC should work to adopt a new Open Internet Order, addressing question such as zero-rating agreements. The new Order would specifically include zero-rating as an anticompetitive concern, listing what would be acceptable terms in a zero-rating agreement. This would promote greater clarity to market agents that wish to engage in such agreements.

Second, the agency should have constant oversight on any zero-rating agreements that may come in the market, promoting an ex ante control. The agency should require the parties of the agreements to disclose the terms to the regulatory agency before promoting the arrangement to consumers. The FCC would then analyze the terms of the contract and decide whether it is compliant with competitive standards set forth by the new Open Internet Order. Moreover, the market players would have to provide quarterly reports on the state of their zero-rating agreements.

Third, if broadband operators choose to promote zero-rated access to certain social media applications from a specific third-party edge provider, the FCC should also impose mandatory zero-rated access to fact-checking websites and reliable sources of information, such as government web pages. The idea behind this proposal is to address the dissemination of misinformation. When an app is zero-rated, the user lacks the incentive to spend its data to access other sources of information. This proposal would address this problem, providing zero-rated access to fact checking agencies. Moreover, this would create a civic engagement scope in the agreement.

Fourth, the FCC should promote regular sector inquires to verify how the market responded to the agreements in place. It would function as a check on whether the agreement is in fact producing the expected results and not distorting competition. This ex post analysis would work in tandem with the ex ante framework proposed in the second recommendation. Should the ex post analysis find that the agreement is harming competition, the FCC would step in to impose remedies and correct the course. Should correction not be possible, the FCC would be able to determine the termination of the agreements. Moreover, the sector inquires would provide the FCC with information on how much of the industry is covered by the agreements.

Conclusion

Zero-rating is a strategy capable of providing affordable internet access to underprivileged users and communities. However, it is also an effective tool for dominant platforms to impose anticompetitive effects in the market, hurting competition and reducing users’ choices. The
framework of analysis proposed above seeks to promote a better assessment of zero-rating policies, considering the possible anticompetitive effects arising from them. Moreover, zero-rating can contribute to the concentration of data, reducing competition and reinforcing dominant market positions. A concerted policy effort from regulatory (telecommunications) and antitrust authorities is necessary to address the issue. Promoting a more competitive environment would also have ancillary and non-economic benefits, such as the possible reduction of misinformation spread on a single social media platform.