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Competition enforcement challenges and advocacy opportunities**

-- Background paper by the OECD Secretariat --

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LATIN AMERICAN AND CARIBBEAN COMPETITION FORUM



**14th Latin American and Caribbean Competition Forum
12-13 APRIL 2016, Mexico City, Mexico**

Session I

Disruptive innovation in Latin America and the Caribbean: Competition enforcement challenges and advocacy opportunities

BACKGROUND PAPER BY THE SECRETARIAT¹

Abstract

Disruptive innovations are new products, processes or business models that redefine a market and displace incumbent firms. They contrast with innovations coming from within a market's value network ("the context within which a firm competes and solves customers' problems" (Christensen and Rosenbloom, 1995) and which are focused on improving product quality at the higher end. Disruptions often come from smaller firms (including new entrants) and, particularly in the case of internet or mobile technologies, scale up quickly at the expense of entrenched incumbents. While there is disagreement among theorists about the precise mechanism through which disruptive innovations influence markets and which recent innovations qualify as disruptive, it is clear that technology-enabled innovations will continue to fundamentally change markets in the years ahead.

The Latin America and Caribbean region is no exception to this trend, and has in recent years seen rapid market change spurred by web- and mobile-based innovations. These include services offered by large players from outside the region, such as Uber and Airbnb, as well as locally-developed and rapidly growing businesses such as Cumplo and Easy Taxi. Several recent innovations in the financial services sector have targeted under-served segments of markets, including individuals without bank accounts, credit ratings or payment cards, as well as those reliant on international remittances.

In this context, competition authorities face two significant challenges: applying competition laws to markets whose analysis can be made difficult by disruptive innovation, and advocating for competition in an atmosphere of significant controversy. Competition authorities can make use of both new and established approaches to help ensure that consumers in Latin America and the Caribbean benefit from disruptive innovations, as well as the competitive benefits they bring.

¹ This paper was written by James Mancini, Analyst at the OECD Competition Division.

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1. Introduction

1. The term ‘disruptive innovation’ has been applied to a wide range of new market developments, ranging from the development of a sharing economy to new beverage flavours.² While there is debate about exactly which recent innovations qualify as ‘disruptive’, it is clear that technology is enabling new business models and services to dramatically reshape markets that were once stagnant. This paper will explore the ways in which competition authorities, particularly those in Latin America and the Caribbean, will be challenged by market disruption, and the potential responses available to them.

2. First, this paper will discuss the theory of disruptive innovation, and will highlight some characteristics for competition authorities to consider when seeking to identify disruption.

3. Next, some recent innovations in Latin America and the Caribbean will be described, including some predominant features of several disruptive innovations in the region. These innovations focus on underserved consumers in regulated markets and are at their early stages, meaning that their disruptive potential is not yet clear.

4. This paper will then set out the challenges competition authorities face with respect to enforcement in markets that are rapidly changing, have increasingly indistinct boundaries or are two-sided. These issues can be addressed by keeping at the forefront the fundamental principles behind established approaches to competition issues. Further, it is clear that many competition concerns relating to industries undergoing disruptive innovation can be addressed as they always have been. In other words, typical competition issues will continue to arise in disrupted markets, including incumbent abuse of dominance to prevent disruptor market access, anticompetitive acquisitions of disruptors by incumbents and complaints regarding the dominance of new disruptive entrants.

5. Finally, advocacy opportunities for competition authorities with respect to disrupted, or potentially disrupted, markets will be discussed. These opportunities include traditional efforts, such as the completion of market studies and providing comments on regulatory changes. New approaches could also be considered, including early-stage efforts to identify competition issues in disrupted markets and the assumption by competition authorities of a proactive role in encouraging cooperation between disruptors and industry regulators.

6. There are, therefore, many considerations for competition authorities to take into account as innovations present them with novel challenges. While there are no simple answers to all of the questions posed below, there are undoubtedly significant opportunities for authorities to effectively fulfil their mandate in disrupted markets, and therefore to ensure that consumers in Latin America and the Caribbean benefit from disruptive innovations, as well as the competitive benefits they bring.

2. Defining disruptive innovation

7. Disruptive innovations are new products, processes or business models that redefine a market and displace incumbent firms. Clayton Christensen, who developed the term disruptive innovation, describes the impact of these innovations in terms of a market’s value network, defined as “the context within which a firm competes and solves customers’ problems” (Christensen and Rosenbloom, 1995). As noted by de Stree and Larouche (2015: 2-3):

² <https://www.fb101.com/2014/08/its-not-wine-its-not-beer-new-trend-shakes-up-beverage-industry/>.

“[The terms] sustaining and disruptive refer not to technological progress, but to the relationship between the innovation and the value network around it: a sustaining innovation takes place within the value network, whereas a disruptive innovation comes from outside of the value network and displaces it. As Christensen describes it, within the value network, incumbent firms tend to improve products constantly, so as to pull the market upwards towards the high-end. This leaves the door open for other firms to come from a neighbouring market and start offering low-end products that meet the basic requirements of the value network and offer additional value (outside of the value network). If these other firms are successful in gaining a foothold on the low-end of the market, the value network will be redefined on their terms, and they will supplant the incumbent firms. This is why, as Christensen explains, even successful firms that invest in innovation and stay nimble can be displaced by disruptive innovation. Disruptive innovation comes from the blind side of incumbent firms.”

8. The precise application of the term is subject to some disagreement. Some have questioned the applicability of the model to recent market innovations, specifically the focus on innovations initially targeting the low-end of the market, the failure of incumbents by virtue of their efforts to focus on the higher-end of the market, and the application of the model to recent innovations such as the iPhone (Lepore, 2014; Gans, 2015, Thompson, 2013). For his part, Christensen has taken issue with the description of several recent innovations as disruptive, stating for instance that Uber cannot be said to provide an inferior quality service to taxis and therefore is not disruptive (Christensen et al, 2015). However, despite the controversy over terminology and the predictive application of the model, it is evident that significant innovations are occurring in markets that may not be disruptive under some definitions, but which come from outside of existing value networks and are certainly having a significant impact on markets.

9. To clarify the application of the term from a competition authority perspective, the OECD Secretariat (2015) has noted that markets which are particularly vulnerable to disruptive innovation include those with (i) strong network effects, which could promote significant shifts in market share after the introduction of innovative products or services and, in some cases, (ii) rigid regulation, which could limit incumbent innovation and competitive intensity, providing an opportunity for new entrants to disrupt a market by operating outside of existing regulatory frameworks. While disruptive firms often appear to be new, small entrants, they can also be established firms entering new markets or incumbents disrupting the industry in which they are already present (in effect, disrupting their own business). Disruptors often take advantage of economies of scale which, particularly in the case of internet-based service providers, allow a rapid scale-up in customer base. In addition, the business model of several disruptors appears to be premised on the elimination of intermediaries or other inefficiencies in a market, essentially reconfiguring the market to avoid certain costs.

10. The following section will summarise some recent innovations in Latin America and the Caribbean and will review them in the context of the expected characteristics of disruptive innovations discussed above.

3. Recent disruptive innovations in Latin America and the Caribbean

11. The Latin America and Caribbean region has witnessed market change spurred by web- and mobile-based innovations. These innovations are being introduced both by large players from outside the region (such as Uber and Airbnb) and locally-developed businesses in several sectors across the economy. Two sectors which exhibit the characteristics of markets vulnerable to disruptive innovation - specifically, the existence of network effects and sector regulations – are discussed below: the taxi industry and the financial services industry.

3.1 *The taxi industry*

12. In the transportation sector, mobile taxi-hailing applications have grown rapidly across the region. In addition to cost and convenience, car-hailing applications are marketed as a safer alternative to conventional taxis, which may contribute to their growth in the region (Gray et al, 2015).

13. Uber is currently active in Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Mexico, Panama, Peru and Uruguay.³ However, it is not alone: there is significant competition emerging in Latin America and Caribbean, and in some cases locally-developed applications have pre-empted the entry of Uber into the market, capturing significant local market share. In Lima, Peru, there are 10 applications for hailing or sharing vehicles available to consumers (Kraul and Bevins, 2015). In Colombia, locally-developed Tappsi currently has a 90% market share among mobile taxi applications in that country. Further, there is significant room for growth in this market segment in Colombia as taxi apps have only 15% penetration among taxi users (Keane, 2016). Tappsi recently announced a merger with Easy Taxi, another mobile taxi-hailing service in Brazil, with the stated intention of expanding market reach and capitalising on economies of scale. Easy Taxi is currently larger than Uber in several markets, making 50,000 trips per day in Lima and 10,000 in Santiago, and claims it is in compliance with all local regulations, in contrast to Uber (Keane, 2016). Cabify, a Spanish company, has also recently raised funds to expand its platform in Chile, Colombia, Mexico and Peru as well as to enter the market in several other countries (Wade, 2015). It distinguishes itself from Uber in that it only operates where its drivers can obtain taxi licenses (Schoon, 2015).

3.2 *Financial services*

14. Several recent innovations in the financial services sector in Latin America and the Caribbean have been developed in response to particular needs of regional consumers, including large segments of the population with lower incomes that have yet to realise the benefits of recent innovations in consumer financial services offered elsewhere. These innovations target under-served segments of markets, including individuals without bank accounts, credit ratings or payment cards.

15. For instance, consumers without access to a bank account lack a convenient method of transferring money and are unable to make electronic purchases through, for example, online transactions. Telerecargas⁴ provides cash processing services to the large unbanked population in Argentina which conducts transactions primarily in cash. It benefits from a large network of distributed agents to facilitate common transactions, such as top-ups for mobile phones or utility payments. While this offering is not in itself unique or disruptive in its current form, Arabehty (2012) has indicated that Telerecargas and similar firms may be focusing on building up a user base by tapping into the large Argentinian network of traditional “top-up” agents and users in order to expand into more disruptive financial services, such as lending.

16. Several innovations have emerged in recent years to serve consumers without access to the financial system by taking advantage of the widespread use of mobile phones in Latin America and the Caribbean. Moneyclip⁵ in Brazil allows users without bank accounts to access e-transfer, credit and debit card services. The system allows cash deposits to be made through what it calls “community banks” (as well as traditional banks, and online via credit card) and is marketed as a tool for bill payments as well as money transfers to family and friends. Additionally, Moneyclip’s accompanying mobile application provides discounts at some stores and budgeting assistance. The Brazilian Central Bank has observed that

³ Uber, Cities, <https://www.uber.com/cities>.

⁴ <http://www.telerecargas.com.ar/>.

⁵ <http://www.moneyclip.com.br/palmas/>.

mobile banking has grown rapidly in Brazil (Banco Central do Brasil, 2014), no doubt as a result of services such as this one. Movilway⁶ provides similar services but allows consumers to transact via SMS using simple telephones rather than smartphones, access to which is limited among some consumers (Heim, 2012; Díaz, 2012).

17. The market for international remittances is also beginning to show signs of disruption. This is unsurprising given the relatively high commissions charged in such transactions and the importance of remittances to many Latin American and Caribbean economies (Suki, 2007). Transferwise⁷ offers online money transfers between many major currencies, including the Brazilian Real and Mexican Peso. Transferwise's fees and exchange rate spreads are significantly lower than traditional remittance service providers as a result of its innovative business model, which involves the maintenance of bank accounts in all the currencies with which it transacts. Regalii, a US company, provides remittance services to transfer funds into Latin America and the Caribbean as well. The service replaces traditional remittance services (e.g., Western Union) with gift cards that recipients receive via SMS (Heim, 2012).⁸ Based on research regarding the likely use of remittances, Regalii recently worked with utility providers in Latin America and the Caribbean to allow utilities bills to be paid directly by expatriates, with the beneficiary of the payment being notified of the bill payment via SMS (Cutler, 2015).

18. In addition to offering payment services, recent innovations in Latin America and the Caribbean are also providing access to loans for those traditionally cut out of the lending market, including those without access to credit bureau services. Lenddo⁹, headquartered in New York but with offices in Colombia and Mexico, creates proxy credit scores through alternative information sources for individuals who do not have traditional lending history, while also offering consumer lending. Similarly, Kreditech, a German company, uses big data to find new sources of information regarding the credit worthiness of the "underbanked" (Wilson, 2014). Cumplo¹⁰ is a peer-to-peer lending platform that provides individuals in Chile with access to small loans. The lower-income consumers who generally take advantage of these loans pay interest rates significantly lower than those offered them by traditional banks – rates that have to date effectively kept these consumers out of the lending market (The Economist, 2012; Heim, 2012). Pay-as-you-go solar panel offerings in the region also provide financing to low income consumers, who would generally not be able to afford solar power due to high up-front costs, despite the benefit of low operating costs (Kumar and Winiecki, 2014; MIF, 2014).

3.3 *Common characteristics*

19. It is worth briefly returning to the definition of disruptive innovation noted above to consider where these innovations fit. First, both ride-sharing and financial services innovations exhibit significant network effects and economies of scale. Most are enabled by internet and mobile technologies that are easily scalable, and several benefit from growth in the user base of a given service. The more users who sign up with Telerecargas or Movilway, for instance, the more merchants will be encouraged to accept payment via these methods, meaning that the value of the service to consumers will increase.

20. Further, some of these services are targeted at the "low-end" of markets and may, initially at least, be perceived by current consumers as inferior, consistent with Christensen's model. A wealthy

⁶ <http://www.movilway.com/>.

⁷ <https://transferwise.com/>.

⁸ <https://www.regalii.com/>.

⁹ <http://www.lenddo.com/>.

¹⁰ <http://cumplo.cl/>.

consumer in a major city may not currently find the proposition of receiving a gift card via SMS on a mobile phone without internet access to be an attractive one. Similarly, consumers who already have access to larger loans at lower interest rates will likely not find the small loans offered by Cumplo attractive. However, once a base of users has been established by taking advantage of network effects and economies of scale, it is possible that the unique service offerings of the financial services innovations described above may be adapted to the needs of other market segments.

21. It is worth noting once again that theorists have different views of the exact mechanism through which disruptive innovations affect markets. As mentioned, mobile taxi hailing services do not fit the expectation that disruptions will come from the low end of the market, and thus may impact the market and evolve in different ways. While this debate may appear academic, it can have significant implications for competition authorities. Without an appreciation of the broad characteristics discussed above, authorities risk encountering certain pitfalls when conducting their analyses (for instance, incorrectly defining markets) or missing anticompetitive acquisitions of disruptors by incumbents. The following sections will detail these risks, and discuss advocacy and market research as tools for preventing them.

4. Implications for competition authorities

22. There are numerous innovations that are disrupting, or have the potential to disrupt, a variety of markets across Latin America and the Caribbean. Alongside these innovations come new market entrants and intensifying competition, with attendant expected benefits in terms of productivity, consumer welfare and economic growth. Is there a need for competition authorities to act in this context? The answer is a qualified “yes”: prior experience demonstrates that there are a number of reasons why authorities may have to intervene.

23. First, disruptive innovations engender a response from the markets they affect. Incumbents can attempt to innovate themselves, or to adopt some of the features of disruptive entrants. This outcome reflects the competitive benefits that innovation can bring. For instance, in Sao Paulo, traditional taxi drivers have adopted rules regarding the acceptance of credit card payment, applications offering mobile hailing and driver dress codes. These changes are part of an explicit attempt to narrow the differential in customer experience between Uber and traditional taxis (Época Negócios, 2016). Incumbent responses may not always be pro-competitive. As such, competition authorities can be faced with enforcement challenges where the application of established competition tools must reflect disrupted market realities. This will require an understanding of the economics underlying these tools rather than the rigid application of rules of thumb. In other cases, authorities may need to cut through complicated digital market issues to recognise that they are dealing with typical competition law violations. For example, the exact parameters of a test for predatory pricing may vary, but the underlying principles in such cases remain unchanged.

24. Additionally, there may be risks to competition if disruption is occurring in a regulated market, as is the case with the recent innovations above, and incumbents advocate for regulators and policymakers to apply (or extend) regulations reflecting traditional business models to disruptors. In some cases, the core value proposition of disruptors may in fact be the avoidance of these traditional regulations. As such, a balance between consumer protection and the promotion of competition that reflects new market realities may be required, and it could be necessary for competition authorities to ensure that the benefits of competition are clearly articulated to sectoral regulators and the general public.

25. This section will elaborate on the challenges and opportunities faced by competition authorities with respect to likely incumbent and regulator responses to disruptive innovations. The experience of competition authorities, particularly in Latin America, will be drawn on to provide a sense of what competition authorities can expect in disrupted markets in the future.

4.1 *Competition enforcement challenges from disruptive innovations*

26. The rapid pace of market change in Latin America and the Caribbean presents challenges for competition authorities. These challenges include the need to carefully apply market definition tools to rapidly changing markets, grappling with potential increasingly frequent two-sided market issues and ensuring traditional competition issues are dealt with in disrupted markets. Specifically, the pace of change in markets, and blurring boundaries between them, mean that rigid rules of thumb for market definition will be inappropriate. Two-sided markets must be recognised, and should not by default be treated simply as two separate markets. Finally, traditional enforcement activities in terms of monitoring incumbent behaviour with respect to disruptor market access, and acquisitions of disruptors, must be maintained. Each of these issues will be discussed in turn below.

4.1.1 *The implications of rapid innovation on market definition*

27. The definition of markets undergoing disruption by technology-enabled innovation presents competition authorities with several challenges. First, product markets as well as business models change rapidly, and predicting the evolution of technologies, product offerings and consumer preferences can be fraught with difficulty. Many observers (including competition authorities) of the market for portable GPS navigation units would likely have been taken aback at the pace at which the market was disrupted by smartphone navigation apps: Downes and Nunes (2013) observed that “users made the switch in a matter of weeks” in a study of what they term ‘Big-Bang Disruption.’ Transitions of this speed are challenging competition authorities’ ability to anticipate the future potential of competition in a market, and to respond to market developments in a timely way.

28. In addition to an increase in the pace at which markets change, there is an increasing blurring of the lines between different markets. The development of cloud computing and online platforms means that service offerings can be easily expanded, and disruptive innovations can be easily introduced to previously untouched markets (in other words, costs of entry and expansion are low). For example, payment platforms such as Telerecargas may enter lending markets for low-income consumers. Again, this phenomenon makes the task of competition authorities attempting to define a market a difficult one. Clayton Christensen, who developed the model of disruptive innovation, famously pronounced that the iPhone would not be disruptive in the mobile phone industry when it was introduced. He later admitted an error that could be attributed to the challenge of defining a market whose contours are not easily distinguishable, stating that he failed to appreciate the iPhone’s potential to disrupt the laptop market (Bennett, 2014).

29. Both of these trends mean that the rigid application of rules of thumb (or standard metrics for competition specified in legislation) for market definition may fail. That is, an inflexible approach may cause competition authorities to define a market too narrowly, and fail to appreciate competitive pressures that come from different products offering similar functionality. As a result, authorities may take action in markets where competitive pressures are in fact significant. Anticipating product developments that do not occur in an attempt to avoid overly narrow market definitions could, however, produce the opposite outcome – namely, an overly broad market definition in which the presence of competitive pressures is less than anticipated.

30. This does not mean that current competition laws and the principles underlying them are not relevant when defining markets experiencing disruption. As Stephen Weissman, Deputy Director of the FTC’s Bureau of Competition, recently stated: “It may be tempting to think that century-old laws can’t keep pace with the rate of change in fast-paced, dynamic markets. Yet ... antitrust laws have stood the test of time by relying on a fact-based, analytically sound approach that accounts for changing market environments and new economic learning” (Weissman, 2015). Graef (2015b) agrees that existing approaches are still valid for competition authorities, even when tackling issues in rapidly evolving online

markets. To this end, authorities should keep in mind the objectives of established tools, such as SSNIP tests and the focus on substitutability, while recognising the unique facts of disruptive innovation cases. A thorough, principles-based assessment of the facts of a case can help evaluate whether there is “some development lurking at the fringes of the market that creates uncertainty about competition in the future” (Weissman, 2015).

31. Several recent papers have proposed methods for tackling these challenges. In a study prepared for the European Parliament, Van Gorp and Batura (2015) propose focusing on the business models of firms rather than consumers’ perceptions of product substitutability. They posit that such an approach, rooted in an understanding of how firms earn profit, would consider the competition from the perspective of potential threats to profit rather than direct product substitutes in the minds of consumers. This approach has the advantage of recognising the potential for innovations to disrupt revenue flow for incumbents through different offerings that serve related, but not necessarily identical, customer needs. The authors state that this approach would, for instance, lead competition authorities to consider WhatsApp and Facebook together, regardless of whether consumers believe they provide the same service, as each would be capable of impacting the other’s profit. Potential risks of this approach include a reliance on the views of firms, rather than established facts and consumer perceptions, and the difficulty of understanding business models of disruptors which are still developing.

32. Graef (2015b) argues that a narrow approach in market definition based on product characteristics ignores the potential for disruptive innovations to introduce competition in a market. Rather, Graef advocates for competition authorities to “define markets more loosely and impose less strict market boundaries” (p. 5). While this could lead to fewer firms being found to be dominant, Graef notes the example of Microsoft, which was required by the European Commission to give competitors access to their technology but which was naturally disrupted by cloud-based providers such as Google without such technology (although the continuing dominance of Microsoft in some market segments may raise questions about this argument). Graef emphasises the importance of disruptive innovation relative to innovations within defined markets and, in dominance cases, the consideration of potential competition over reliance on market shares to determine whether conduct is anti-competitive.

33. For internet-based services, Evans and Mariscal (2013) posit that competition authorities can adapt to the blurring of lines between, and rapid changes in, online services by recognising that websites compete with each-other for the scarce attention of users. Focusing on the particular product market for social networking or new websites, for instance, may therefore cause authorities to misunderstand the basis for market power. This could lead to understating the degree of competition from “attention rivals” who offer different products or services.

34. Competition authorities will also be required to reflect the unique features of their markets when undertaking market definition. The boundaries of an industry in a developed economy may be different from those in emerging economies. For example, Oğus et al (2015) have argued that that mobile internet can in some countries be a viable substitute to broadband service (generally the case for emerging rather than developed economies).

35. Several cases and studies have also examined the assessment of competition on the basis of innovation (rather than price or quality) as a method of more accurately assessing competitive pressure in rapidly-changing and fluid markets. In this approach, competitive pressure can be assessed on the basis of potential entry by competitors with access to sufficient innovation resources, rather than product market participation. Kern (2014) discusses one method for doing so, the innovation markets approach, which has the advantage of considering this dimension of competition but whose application involves significant practical challenges. For instance, firm secrecy may make the identification of potential innovation competitors, who may not wish to make research and development efforts known, very difficult. Kern also

points out current theoretical gaps regarding the precise connection between innovation and market competition, calling for further research before competition authorities rely on the innovation markets approach alone. However, a focus on competition through research and development has been applied with success in several past cases (see, for instance, the UK Competition Commission's 2003 decision on an acquisition by Carl Zeiss Jena GmbH in the microscope industry for one such example).

4.1.2 *Two-sided markets*

36. The issue of two-sided markets also has significant implications for the analysis used by competition authorities to define markets and assess competition (such as SSNIP tests). While these markets are not new, the rapid expansion of disruptive online platforms serving as a venue for buyers and sellers (including “sharing economy” innovations such as Airbnb, Uber and Easy Taxi) means that competition authorities may have to grapple more often with the unique nature of two-sided markets.

37. Two-sided markets involve indirect network effects for users of a platform. Customers do not benefit directly from an increase in the number of users of a platform like Airbnb. However, they indirectly benefit because an increase in users would encourage more owners to list their property on the site (see, for instance, Haucap and Stühmeier, 2015). A further differentiation can be made between transaction and non-transaction two-sided markets (Filistrucchi et al, 2010). In the former case, there is a clear, observable transaction between users on both sides of the platform (buyers and sellers) which permits the platform to charge a per-transaction fee (e.g., Airbnb or eBay). In the case of non-transaction markets, there is no observable transaction between users. For example, when a company advertises on a website such as Facebook or Google, it is not always possible to directly track purchases made by the website user of the advertiser's products or services as a result of the ad.

38. In online platform cases, Filistrucchi et al (2013a) propose that competition authorities should define two markets for non-transaction markets, recognising their interaction, while only one market need be defined for transaction markets. Even though there are both buyers and sellers in a transaction market such as Uber, Filistrucchi et al state that the service provided by the platform – specifically, the ability to transact in the market – is the same. The services provided in a non-transaction market like Google (i.e. to users and advertises) cannot be grouped together in such a way, and therefore the authors express the view that each should be considered separately.

39. In addition to identifying market two-sidedness, competition authorities must take into account the dynamic interaction between each side of the market when considering competitive constraints. For instance, authorities should recognise that increases in listing prices on online product sales platforms could, by causing a reduction in listings, reduce the demand among users of the platform. Thus, both sides of the market would be affected by an increase in the price in one side. Proposed methods for doing so include expanding the use of client surveys to understand likely behaviour in the case of a price increase in one side of the market (Haucap and Stühmeier, 2015) or adopting a “business model” approach that considers competitive constraints on profits and revenues rather than simply customer demand (Van Gorpe and Botura, 2015).

40. Filistrucchi et al cite several examples of decisions by competition authorities that may not have taken into account the competitive constraints associated with potential advertiser substitution. On the other hand, some commentators have questioned the decision by the European Commission and US Federal Trade Commission to permit the acquisition by Google of DoubleClick, an online ad-serving platform. These commentators have questioned whether the competition authorities recognised the two-sided nature of the market in question and whether the competition authorities ignored the merger's impact on competition in the multi-platform advertising side of the market. Specifically, some have indicated that authorities focused on the

market for search engine advertising and did not consider the impacts of the acquisition of DoubleClick on advertising on other platforms, such as YouTube (Van Gorpe and Botura, 2015: 54).

41. Auer and Petit emphasise caution among competition authorities when applying two-sided market theory to their analysis. They note that “[i]n a world where multimedia platforms are increasingly ubiquitous, the theory of two-sided markets offers a unique framework to understand the dynamics of market competition” (Auer and Petit, 2015: 53), but highlight several challenges associated with the theory’s application. These current challenges include questions about the precise definition of two-sided markets (including whether bargaining between consumers and suppliers through the platform is required) and the application of SSNIP tests (whether it should be applied to each market separately, and how to allocate the hypothetical price increase). Specific cases in which there remain open economic questions include the treatment of credit card interchange fees, software market fragmentation and electronic book distribution arrangements. The authors indicate that ignoring two-sided markets can create significant issues for antitrust analysis, but an undue focus on two-sided markets can also bring unnecessary complications to cases involving standard network effects that could be addressed as such. With respect to the latter scenario, the authors note that EU and US authority approaches to allegations regarding Microsoft’s conduct with respect to the Netscape browser, stating (47):

“Both the US and European Microsoft cases predate the emergence of the seminal models of two sided markets. Despite this, the US and EU decisions are broadly in line with the main teachings of the theory, even though they relied on a standard theory of network effects. Both decisions understood that tying-down users on one side of a platform could increase adoption by users on the other side. In other words, the two cases aptly identified the existence of crossgroup externalities.”

4.1.3 Incumbent acquisitions of disruptors

42. Incumbents can respond to disruption by acquiring the disruptors, eliminating the threat to their business and denying consumers the benefit of innovation and competition that the disruptor would have brought about. De Streel and Larouche (2015) note the implications of these types of transactions for merger approvals. First, the identification of incumbent acquisitions of disruptors can be challenging, as disruptors may be in the early stages and therefore not hold a significant (or in fact any) market share. The German Monopolkommission (2015) has called for the use of a transaction value test for merger notification, allowing competition authorities to receive notifications when transactions are conducted at very high multiples of revenue, which could suggest a premium is being paid for preventing disruption. Once notification is received, there are several proposed approaches to evaluate mergers between incumbents and disruptors which, as summarised by de Streel and Larouche, include:

- Owings’ (2013) approach of identifying disruptors based on the characteristics set out by Christensen, including offering an inferior product at a lower price that draws a segment of the market away from incumbent offerings;
- Shelanski’s (2013) proposal for considering “downward innovation pressure” resulting from the transaction; and
- Shapiro’s (2012) method, which considers (i) whether the merger reduces the contestability of the market and (ii) if so, whether there are synergies or benefits that can be appropriated by the acquirer.

43. In addition, de Streel and Larouche propose that competition authorities maintain vigilance after any approved transactions. Such an approach could detect issues where, for example, contrary to assertions made during the transaction (or a consent decree), the incumbent dismantles the disruptor’s business in an

effort to protect its own business, as opposed to harnessing the disruptor to improve its product offering and as a result consumer welfare (termed “mothballing”). Concerns of this nature have been expressed with respect to the acquisition by Oracle of Sun Microsystems, and specifically the treatment of MySQL, a database software for which Oracle has competing products (Wolpe, 2013). While some have indicated that these views are unjustified (Wolpe, 2014), the fact that they were expressed several years after the transaction was announced underlines the challenges competition authorities face when monitoring these issues.

4.1.4 *Typical competition law violations in disrupted markets*

44. The issues described above point to the need for competition authorities to carefully consider how they apply analytical tools when dealing with certain features of markets undergoing disruptive innovation. However, it is also clear that, in many other cases, competition law violations will be typical ones despite the fact that they occur in disrupted markets. The specific facts of a case may be novel, and complaints from incumbents in disrupted industries may increase in volume, but there have been no calls for competition authorities to fundamentally restructure their approach to these issues. For example, the Competition Commission of India (CCI) faced a complaint regarding alleged anticompetitive conduct by Uber from the Kolkata taxi industry. The CCI began its analysis of the complaint by asking whether Uber was in fact dominant to begin with - in the view of the Commission, it was not (Times of India, 2015). By taking this approach, the Commission avoided a lengthy review of the digital platform’s competitive effects by concentrating on the theory of harm and market definition, demonstrating standard approaches in a market exhibiting rapid change.

45. As disruptive innovations, including those described above in Section 3, expand and draw in current consumers in the market they disrupt, incumbents can respond in several different ways. Each response carries with it implications for competition authorities, which can generally enforce competition laws using existing tools rather than dramatically different approaches. First, incumbents can choose to attempt to compete with disruptive entrants by innovating, or at least trying to mimic certain features of the disruptive offering or business model (as is the case with some elements of the response of taxis in Sao Paulo to Uber). While it may be difficult for incumbents to adapt to disrupted markets, a competitive response represents a positive outcome from the perspective of competition authorities. In the event that incumbents fail to successfully innovate, competition authorities will need to ensure that the disruptor-turned-incumbents do not contravene competition laws by, for instance, controlling access to essential facilities (potentially including data) and erecting entry barriers for new disruptors to overcome.

46. Other forms of anticompetitive conduct (e.g., controlling access to essential facilities, foreclosure in upstream or downstream markets) can also be exhibited by incumbents in response to disruption. These forms of conduct necessitate the same treatment that is traditionally applied by competition authorities. For example, CADE (2015) in Brazil announced an investigation into anticompetitive behaviour of taxi companies and unions in seeking to obstruct market access for Uber. Identifying these issues may not always be straightforward when disruptors are not aware of their rights to seek recourse when faced with anticompetitive conduct. As such, competition authorities may need to develop their knowledge of markets on the verge of disruption through market studies and other outreach activities, as further discussed in Section 4.2 below. This outreach could include simply asking disruptors how they expect incumbents to react to their presence (and potential growth) in the market, as proposed by Evans (2014).

47. Finally, incumbents have used, and can be expected to continue to use, the presence of disruptors in markets to justify mergers among themselves that lead to a significant increase in market concentration. This approach is sometimes termed the “but Amazon” or “but Google” defence – a reflection of its predominant use in response to large disruptors, particularly in the retail industry. For example, the then-Competition Commission (2008) in the UK approved a merger of GAME Group plc and Game Station despite the transaction resulting in significant concentration in the ‘bricks and mortar’ retail electronic

game market. The Commission accepted the claim of the merging parties that, despite the increase in concentration, the merged parties would be subject to significant competition from online retailers and auction sites. Some have raised concerns with this decision, however, and when used with reference to early-stage innovations whose disruptive potential is not yet clear, this defence may be less justifiable and will require careful consideration by competition authorities. When reviewing a merger in the tailored suit and tuxedo rental business, the FTC found that the online market was not yet a significant factor and focused instead on the presence of bricks and mortar competition in evaluating the impact of the transaction (Feinstein et al, 2014).

48. This section has reviewed the enforcement issues competition authorities may face with respect to likely incumbent responses to disruptive innovation, as well as potential anticompetitive implications of disruptor behaviour. While authorities must be conscious of certain characteristic issues in cases involving disruptive innovations, it is clear that the principles applied during enforcement actions should not change. There is an additional response available to incumbents in certain markets that will be explored further below: calling for the intervention of regulators and policymakers.

4.2 *Advocacy opportunities for competition authorities in Latin America and the Caribbean*

49. Many recent disruptive innovations have developed outside of existing regulatory frameworks in the markets they impact. In fact, the avoidance of regulation is core to the business model of some disruptive entrants, who seek to innovate in a market where regulation favours the status quo. As disruptors begin to capture segments of existing markets, incumbents call for regulations to be applied equally, which could have significant implications for the ability of disruptive innovations to produce consumer benefits. Sector regulators therefore face the challenge of balancing fairness, consumer protection, the promotion of competition and any other goals their regulation seeks to achieve. As this process takes place, competition authorities may wish to make use of their advocacy toolbox in order to ensure that competition and innovation are kept at the forefront of any decisions. This section will discuss opportunities for competition authorities to do so, starting with a survey of recent regulator and competition authority responses to disruptive innovations in Latin America and the Caribbean.

4.2.1 *Regulator and competition authority responses to recent disruptive innovations in the region*

50. In recent years, regulators across Latin American and the Caribbean have been challenged in responding to disruptive innovations. These responses have generally ranged from no response (yet) to an active effort to prevent disruptors from operating in the market.

51. Because they are generally in their early stages, several of the innovations described in Section 3 do not appear to have attracted significant regulatory attention in Latin America and the Caribbean. This is the case with several of the financial innovations discussed; specifically, Lenddo, Telerecargas, Movilway and Regalii. In Brazil, the government and central bank modified legislation to permit the operations of community banks such as those leveraged by MoneyClip, taking care to emphasise the importance of maintaining payment system integration and preventing the creation of disconnected payment networks (Presidência da República, 2013; Banco Central do Brasil, 2013). Further, Cumplo continues to operate in Chile, although it indicates that regulations hold back its growth (Herrera, 2015). Cumplo was the subject of two complaints from the Chilean banking regulator in 2012 to the effect that it was creating a bank without complying with regulations, but the regulator does not appear to have followed up on these complaints (Economist, 2012; Cumplo, 2013).

52. This regional pattern has one notable exception: Uber. As is the case globally, Uber has attracted significantly greater controversy and regulator attention. Taxi drivers have called for the enforcement of taxi regulations (see, for instance, Downs, 2013) and have challenged Uber through taxi unions in the

region (Gray et al, 2015), in many cases characterising Uber as an unfair competitor (Alsema, 2015). As the table below demonstrates, regulatory responses have varied, but have generally been averse to Uber's continuing operation in its current form.

Table 1. Status of Uber in Latin America and the Caribbean

Country in which Uber Operates	Regulator/Government Response	Competition Authority Response
Brazil	São Paulo has announced regulations permitting only 5,000 licenses for a "black car" category (for which fares must be set 25% above traditional taxis) that could be used by Uber drivers. Uber indicated its intention to continue operating without modifications, and Minister of Superior Tribunal de Justiça Fátima Nancy Andrighi has stated that only the Federal Government in Brazil has the authority to ban services like Uber (Baroni, 2015). An earlier blanket ban on Uber in São Paulo was lifted in May 2015 – a judge overturned another judge's decision to ban the service for contravening competition laws (Mari, 2015). In October, a court also overturned a ban on Uber in Rio de Janeiro (Folha de São Paulo, 2015).	Competition authority CADE began investigating taxi companies and unions for violence and "sham litigation" to prevent Uber from accessing the market. The authority stated that while the legal status of Uber was still being determined, it would continue to be protected from anticompetitive conduct under competition laws (CADE 2015).
Chile	Considered to be an "informal" service by the government, Uber has been discouraged in Chile and drivers have been fined (Oyandel, 2014, Emol, 2015).	
Colombia	In November 2015, the President of Colombia indicated that Uber would need to register as a company in the country within six months to avoid a ban (Alsema, 2015).	
Costa Rica	Upon its introduction in Costa Rica, the President of Costa Rica issued instructions to traffic police to ticket Uber drivers (Lopez, 2015). The Ministry of Transportation has also indicated that Uber is not in its view legal. (Dyer, 2015).	Issued an opinion regarding services such as Uber, calling on the Executive Branch to determine whether Uber fits any regulations and, in the event it does not, to regulate the service in such a way that encourages effective competition. (COPROCOM, 2015)
Dominican Republic		President of the Comisión Nacional de Defensa de la Competencia made a statement in favour of opening competition in the taxi sector for Uber and other entrants. (Cohen, 2015).
Mexico	Mexico City announced regulations on Uber in July 2015, including permit fees, vehicle requirements and ride levies (De Haldevang, 2015).	COFECE issued a non-binding opinion in favour of the legal recognition of mobile taxi platforms like Uber (COFECE, 2015).
Panama	Autoridad de Tránsito y Transporte Terrestre has indicated it views Uber as operating outside of the law; Uber has expressed a willingness to discuss the issue with regulators (Revista Summa, 2015).	
Uruguay	Municipal authorities in Montevideo have begun ticketing Uber drivers when the service was introduced in November 2015 (El Pais, 2015).	

53. These responses to Uber in Latin American and the Caribbean demonstrate a common issue regulators face in response to market innovation around the world. Specifically, regulators are often unwilling or unable (without legislative change) to unilaterally adapt to, or choose to ignore, innovative new entrants to their respective markets. As a result, the default response, as was demonstrated in the case of Uber and Cumplo, has been to attempt to prevent the operation of disruptive innovations. Such an approach likely has the greatest impact on smaller disruptive entrants without the resources to pay fines and undertake legal action to gain market access. In other cases, regulators have relied on threats to regulate disruptors without necessarily following up on these threats (Cortez 2014). There are significant exceptions to this, including Brazil's reforms permitting MoneyClip. Easy Taxi's efforts to ensure its offerings are in compliance with regulations demonstrated the role disruptors can have in working with regulators as well.

54. There are some instances outside of the region where authorities have intervened with respect to disruptive entrants in order to protect market competition, although this does not appear to have been the case in Latin America and the Caribbean. For instance, the telecommunications regulator in India prevented the introduction of a free internet offering from Facebook which limited the sites users could visit. Such an offering could conflict with "net neutrality" principles and harm competition from other websites, including smaller local start-ups (Gowen, 2015). In addition, there are some instances where governments have adopted measures to ensure market access for disruptors, as was the case with the peer-to-peer lending industry in the UK, where a Payment Systems Regulator was created in part to ensure fair and equal payment system access for new entrants (Baldwin, 2015). What, then, should competition authorities do to encourage pro-competitive outcomes in disrupted industries?

4.2.2 The role of competition authorities in promoting competition-enhancing innovations

55. Competition advocacy provides authorities with the opportunity to promote consumer (and economic) welfare through competitive markets beyond their traditional enforcement responsibilities. The experience and opportunities of Latin American authorities with respect to advocacy have been identified in previous Latin America Competition Forum sessions (LACF 2014 and 2015). This section will identify some considerations for authorities when undertaking competition advocacy in respect of disrupted markets, as well as some potential opportunities for new advocacy approaches.

56. As noted above, regulators and policymakers will be faced with choices when innovations disrupt existing markets in their jurisdiction. They can opt to allow disruptions to exist outside of existing regulatory frameworks, apply existing regulations to the disruptors or attempt to modify regulations to reflect new market realities. In both regulated and non-regulated markets, governments may also consider responding to concerns expressed by incumbents or other groups, including new regulations or support measures to traditional industries that may have competitive implications. In this context, competition authorities can consider being a part of, or triggering, an evaluation of existing regulatory frameworks. The table below contains some preliminary questions for authorities to ask during such a process.

Box 1. A Basic Checklist for Investigating Cases of Regulation Interfering with Disruption

- What purposes does the regulation serve (e.g. consumer protection, consumer safety, environmental protection, national security)?
- Is the regulation tailored to its stated purpose? In particular, does it restrict competition as little as possible while still accomplishing its stated objectives (see OECD Competition Assessment Toolkit)?
- Is it possible to compare performance in markets with the regulation with performance in markets without it? If so, do it in order to clarify the impact of regulation on these markets.
- What is the incumbent's motive for wanting the regulation to be applied to the disruptor?
- What is the regulator's motive for wanting the regulation to be applied to the disruptor?
 - Are there legitimate reasons, or is the motive simply to keep the disruptor out of the market or to slow its entry?
- What is the disrupting firm's argument for why it should be allowed to ignore the regulation?
- Would consumers benefit if the disruptor is permitted to ignore the regulation? How quickly and to what extent?
- Has the incumbent been innovating? If not, will keeping the disruptor out help them to avoid or delay investing in innovation?
- If there seems to be a competition problem, what options does the competition authority have to solve it?
 - Is the regulation (and actions taken under it) immune to competition law scrutiny?
 - If so, the competition authority can consider issuing an advisory opinion or other public comment on the regulation to recommend ways to lessen its impact on competition
 - The authority can also consider whether a market study would be useful for drawing attention to the problem
 - If the regulation is not immune to competition law, the authority can consider taking enforcement action to challenge it

Source: Reproduced from the OECD Secretariat Issues Paper on Disruptive Innovation, produced for the June 2015 meeting of the Competition Committee.

Market studies and monitoring for disruption

57. The checklist above references a common tool used by competition authorities to expand internal knowledge of a market and identify potential competition issues: market studies. However, authorities may wish to expand efforts of this type into markets at earlier stages of disruption, or even in markets which are vulnerable to disruptions that may not yet have been introduced. This would provide authorities with a base of knowledge regarding market players, business models and competitive dynamics that would make later efforts, including enforcement and regulatory advocacy activities, more effective. In a 2014 market study on the financial sector, COFECE took a proactive approach in highlighting certain issues. Specifically, it identified information access as barrier to competition among credit rating agencies and proposed issuing guidelines so that credit rating agencies and third parties can access information to provide value-added services while protecting confidentiality. This study advocated for the creation of conditions that would encourage the development of disruptive competition from sources such as Lenddo, which are still in their early stages.

58. In practice, this type of early-stage market study may be very difficult for authorities to undertake. First, there is the challenge of identifying markets vulnerable to disruption. While the factors noted above (network effects, regulatory barriers, the presence of intermediaries or inefficient cost structures) can provide some preliminary indications, competition authorities will likely not be able to predict the occurrence of most innovations. After all, the identification of these threats is a major challenge even for incumbents who are deeply knowledgeable about their industry. Secondly, even after innovations have been introduced to a market, it can be unclear whether innovations in their early stages are disruptive. This is the case with several of the Latin American and Caribbean innovations described earlier in this paper. Finally, certain competition issues, including barriers to expansion for disruptive entrants and an evolving incumbent response to disruptors as they expand, may not be fully known until the disruptive innovations have taken root in a market. Once disruptive innovations have been identified, competition authorities must also consider the timing of any interventions or regulatory recommendations they make. There is, for example, the risk that proactive interventions can in fact be premature, or that they will not reflect the actual evolution of markets.

59. There is no clear answer to these questions, but authorities may wish to consider whether current market intelligence efforts are sufficient. Evans (2014) has called for the creation of “red flag disruption units” within competition authorities to focus on the identification of potential innovations for which anticompetitive incumbent behaviour may be a risk. Initial exploratory hearings focusing on specific industries can also be held prior to undertaking complete market studies in order to identify trends and potential issues in the market. The precise balance of the resources that should be put into such efforts is unclear, however, as the maintenance of traditional enforcement capacity would appear to be an uncontroversial priority going forward.

Regulatory feedback

60. Beyond efforts to identify market disruption and competition issues in disrupted markets, and to expand authority knowledge of impacted industries, it is likely that there will be a continuing role for competition authorities in commenting on regulations drafted in response to disruptive entrants. The Tribunal de Defensa de la Libre Competencia in Chile has advocated for the establishment of a secondary market for wireless telecommunications spectrum by Parliament through reforms to telecommunications legislation (Telegeography, 2015). Last year, COFECE issued an opinion in favour of the legal recognition of Uber, which attracted significant public attention and noted the pro-competitive aspects of this particular innovation. The Federal Trade Commission (FTC) in the United States actively advocated for the removal of certain restrictions on automobile distribution by manufacturers, through a letter to state-level policymakers which stated “...consumers are the ones best situated to choose for themselves both the cars they want to buy and how they want to buy them...” (FTC, 2014). Other advocacy efforts on the subject included blog posts on the FTC’s website and letters to legislators (Lao et al, 2015a & 2015b). Similarly, the Competition and Markets Authority in the UK publicly expressed concerns about Transport for London regulations setting minimum wait-times for taxi-hailing platforms (CMA, 2015) and the Canadian Competition Bureau issued a white paper urging municipal governments to consider the benefits of competition when considering regulations for Uber and services like it (Competition Bureau, 2015). In Italy, the Autorità Garante della Concorrenza e del Mercato (AGCM, 2015) commented on proposed regulations on Uber, recommending that a minimal regulatory framework be applied to the platform rather than extending current regulations to such services.

61. While these examples of competition authority advocacy with respect to regulators and policymakers relate to discouraging regulation that would negatively impact competition, the positive influence that regulators can play in promoting competition should not be ignored. As previously noted, regulation can play a significant pro-competitive role when it ensures the access of essential facilities (e.g. the payment system in the financial services industry) for new entrants, including disruptors which

incumbents would not normally be disposed to accommodate. There are also areas where new consumer protection regulations may be needed in response to disruptive innovation to ensure market failures do not arise and competition is protected. The treatment of consumer data, for instance, can grant firms a significant advantage over competitors which may need to be addressed, beyond the enforcement of existing competition laws, with regulation. When these regulations are considered, either as part of a regulatory framework revised from a more restrictive regime that existed prior to industry disruption or as part of a wholly new framework, competition authorities may play a role in proposing measures that ensure pro-competitive outcomes. Such efforts could take into account the fact that a number of innovations occurring in Latin America and the Caribbean target previously under-served segments of the population. In the case of international remittances, the importance of these flows of funds for national economies could also be considered, and may raise the need for international coordination in regulatory change.

Facilitation of consultations between regulators and industry stakeholders

62. Finally, there is an opportunity for competition authorities to play the role of facilitator between industry regulators, governments and market stakeholders, including disruptors, when advocating for competition in markets experiencing disruptive innovation. Such a role would complement efforts to expand knowledge of markets as well as traditional regulatory advocacy roles. John Fingleton (2013), former Chief Executive of the UK Office of Fair Trading, has suggested that competition authorities could encourage disruptors, who are generally not focused on regulation or competition law, to work with regulators in the early stages of their entry into markets. This would encourage transparency over conscious non-compliance with regulations and could enable regulators to consider adapting their approaches to the disruptors in a proactive way, rather than responding to violations in an atmosphere of controversy. As a result, outright bans on disruptor activities could be avoided in favour of regulatory accommodations. Adopting a facilitative advocacy approach could be advantageous for competition authorities in terms of encouraging the resolution of regulator/disruptor conflicts, avoiding the stifling of competitive innovations through regulation, and facilitating a broader assessment of the need for certain sector regulations given their competitive impact.

5. Conclusion

63. In sum, competition authorities in Latin America and the Caribbean are likely to face several challenges in the years to come from innovations having a disruptive impact in the markets they enter. While this paper has identified some recent innovations, and noted how several disruptive innovations in the region are focusing initially on under-served consumers, it is difficult to assess their likely future impact on markets. This underlines an innate challenge in the response of competition authorities to disruptive innovations – a natural inability to predict exactly how markets will evolve. Nonetheless, there are some strategies authorities may follow in order to ensure they are prepared for any market outcome.

64. First, competition authorities should be conscious of the need to consistently apply the fundamental principles underlying established tools, rather than rules of thumb, when facing rapid market change and the blurring of divisions between markets, as well as two-sided markets. Competition authorities may in many other cases find that they are in fact dealing with typical competition issues after cutting through claims regarding market change and innovation. Incumbents may engage in anticompetitive conduct to prevent disruptors from threatening their business, while the growth of disruptors may raise dominance concerns.

65. In addition, advocacy activities will play a particularly important role for competition authorities when disruptive innovations impact regulated markets or create calls for new regulation. Market studies could play a role in the early identification of competition issues and in enhancing knowledge of a market, but the identification of markets on the verge of, or undergoing early-stage disruption, can be challenging. Holding preliminary open hearings with interested stakeholders, and tasking authority staff with monitoring markets for potential disruption are potential solutions, although authorities may wish to ensure that such efforts do not detract from traditional enforcement resources. Authorities can also engage in regulatory advocacy, commenting on proposed regulation and participating in the design of regulatory frameworks in response to market disruption, including the reduction of competition-limiting regulation and the development of new pro-competitive measures.

66. Finally, there is an opportunity for competition authorities to play a role in fostering collaborative links between disruptors and regulators. Such efforts could lead to proactive regulatory accommodations with less controversy than recent high-profile examples such as Uber, to the benefit of regulators, market participants and, ultimately, consumers.

REFERENCES

- Advocacy: Mainstreaming competition policy into the overall economic policy and government actions in Latin America and the Caribbean (2014).
- Almunia, J. (26 November 2012), "Competition and personal data protection", Speech delivered to the Privacy Platform Event, Brussels, http://europa.eu/rapid/press-release_SPEECH-12-860_en.htm.
- Alsema, A. (24 November 2015), "Santos gives Uber 6 months to formalize or face ban in Colombia", *Colombia Reports*, <http://colombiareports.com/colombia-gives-uber-6-months-to-form-company-or-be-banned/>.
- Arabehty, P. (16 October 2012), "Cash Management Innovation in Latin America", *The Consultative Group to Assist the Poor*, Washington, D.C., <http://www.cgap.org/blog/cash-management-innovation-latin-america>.
- Auer, D. and N. Petit (20 January 2015), "Two-Sided Markets and the Challenge of Turning Economic Theory into Antitrust Policy", http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2552337.
- Autorità Garante della Concorrenza e del Mercato (AGCM) (2 November 2015), "AS1222 - L'Antitrust al Parlamento: "Una nuova regolamentazione su Uber e sulle app digitali per il trasporto urbano"", <http://www.agcm.it/stampa/comunicati/7927-as1222-l-antitrust-al-parlamento-una-nuova-regolamentazione-su-uber-e-sulle-app-digitali-per-il-trasporto-urbano.html>.
- Autorité de la concurrence and Competition and Markets Authority (16 December 2014), "The economics of closed and open systems", http://www.autoritedelaconcurrence.fr/doc/economics_open_closed_systems.pdf.
- Baldwin, H. (21 October 2015), "Speech: Economic Secretary: We want to see peer-to-peer lending continue to grow and evolve", <https://www.gov.uk/government/speeches/economic-secretary-we-want-to-see-peer-to-peer-lending-continue-to-grow-and-evolve>.
- Banco Central do Brasil (4 November 2013), "RESOLUÇÃO Nº 4.282", http://www.bcb.gov.br/pre/normativos/busca/downloadNormativo.asp?arquivo=/Lists/Normativos/Attachments/48841/Res_4282_v1_O.pdf.
- Banco Central do Brazil (2014), "Relatório de Vigilância do Sistema de Pagamentos Brasileiro 2014" [Brazilian Payment System Surveillance Report 2014], http://www.bcb.gov.br/htms/novaPaginaSPB/Relatorio_de_Vigilancia_do_SPB_2014.pdf.
- Baroni, Larissa (8 October 2015) "São Paulo cria "táxi preto", abre 5.000 novos alvarás e mantém veto ao Uber", *UOL*, São Paulo, <http://tecnologia.uol.com.br/noticias/redacao/2015/10/08/sao-paulo-cria-taxi-preto-que-so-sera-chamado-atraves-de-aplicativo.htm>.
- Bennett, D. (20 June 2014), "Clayton Christensen Responds to New Yorker Takedown of 'Disruptive Innovation'", *Bloomberg Business*, <http://www.bloomberg.com/bw/articles/2014-06-20/clayton-christensen-responds-to-new-yorker-takedown-of-disruptive-innovation%23p3>.
- Christensen, C. and R. Rosenbloom (1995), "Explaining the attacker's advantage: technological paradigms, organizational dynamics, and the value network", *Research Policy*, 24.

- COFECE (10 June 2015), “Opina COFECE sobre los servicios de transporte de personas por medio de plataformas móviles”, <https://www.cofece.mx/cofece/index.php/prensa/historico-de-noticias/opina-cofece-sobre-los-servicios-de-transporte-de-personas-por-medio-de-plataformas-moviles>.
- Cohen, M. (22 October 2015), “HAY QUE ABRIRSE A LA COMPETENCIA: LLÁMESE UBER O DE OTRA FORMA”, *Comisión Nacional de Defensa de la Competencia*, <http://procompetencia.gov.do/michelle-cohen-hay-que-abrirse-a-la-competencia-llamese-uber-o-de-otra-forma/>.
- Comisión Federal de Competencia (COFECE) (July 10, 2014), *Market Study and Recommendations Regarding Competition Conditions in the Financial Sector and its Markets*, http://www.cofece.mx/ingles/images/Estudios/TrabajoDeInvestigacionDelSistemaFinanciero_INGLES.pdf.
- Competition and Markets Authority (CMA) (2 December 2015), “Competition and Markets Authority response to Transport for London’s private hire regulations proposals”, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/481450/CMA_response_to_TfL.pdf.
- Competition Bureau of Canada (2015), “Modernizing Regulation in The Canadian Taxi Industry”, <http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/04007.html>.
- Competition Commission (17 May 2004), “A report on the proposed acquisition of the microscope business of Bio-Rad Laboratories Inc.”, *UK National Archives*, http://webarchive.nationalarchives.gov.uk/20140402141250/http://www.competition-commission.org.uk/assets/competitioncommission/docs/pdf/non-inquiry/rep_pub/reports/2004/fulltext/488.pdf.
- Conselho Administrativo de Defesa Econômica (CADE) (20 November 2015), “CADE’s General Superintendence opens proceeding against taxi drivers in Uber case”, <http://www.cade.gov.br/Default.aspx?b98c9a6e879c73b045f2441c371b>.
- COPROCOM (25 August 2015), “Opinión sobre la nueva red de transporte en el mercado costarricense UBER”, <http://www.coprocom.go.cr/Acuerdo-COPROCOM-UBER.pdf>
- Cortez, N. (2014), “Regulating Disruptive Innovation”, *Berkeley Technology Law Journal*, Vol. 29:175, <http://dx.doi.org/10.2139/ssrn.2436065>.
- Cutler, K. (17 November 2015), “Regalii, A Startup In NYC’s Washington Heights, Uncovers Where Immigrants’ Remittances Really Go”, *Tech Crunch*, <http://techcrunch.com/2015/11/17/regalii/>.
- De Haldevang, M. (15 July 2015) “Mexico City unveils first regulation on Uber in Latin America”, *Reuters*, <http://www.reuters.com/article/us-mexico-uber-idUSKCN0PP2SU20150716#2bD7P3gkTBuLg9QD.97>
- de Stree, A. and P. Larouche (November 2015), “Disruptive Innovation and Competition Policy Enforcement”, *OECD*, Issues Paper for the OECD Global Forum on Competition, [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DAF/COMP/GF\(2015\)7&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DAF/COMP/GF(2015)7&docLanguage=En).

- Díaz, S. (6 March 2012), “Envíe dinero o haga compras sin recurrir al banco con Movilway”, Enter.co, <http://www.enter.co/cultura-digital/negocios/envie-dinero-o-haga-compras-sin-recurrir-el-banco-con-movilway/>.
- Dickerson, M. and L. Magalhaes (8 October 2015), “São Paulo Stops Short of Uber Ban”, *The Wall Street Journal*, <http://www.wsj.com/articles/sao-paulo-stops-short-of-uber-ban-1444346643>.
- Downes, L. and P. Nunes (March 2013), “Big-Bang Disruption”, *Harvard Business Review*, <https://hbr.org/2013/03/big-bang-disruption/>.
- Downs, L., (6 February 2013), *Lessons From Uber: Why Innovation And Regulation Don't Mix*, Forbes, <http://www.forbes.com/sites/larrydownes/2013/02/06/lessons-from-uber-why-innovation-and-regulation-dont-mix/>.
- Dyer, Z. (21 August 2015), “Uber up and running in Costa Rica despite red light from Transport Ministry”, *The Tico Times*, <http://www.ticotimes.net/2015/08/21/uber-running-costa-rica-even-without-green-light-transport-ministry>
- El Financiero (10 June 2015), “Cofece da el visto bueno a Uber y Cabify”, Mexico City, <http://www.elfinanciero.com.mx/tech/cofece-recomienda-reconocer-a-uber-y-cabify-como-medios-de-transporte.html>.
- El Mostrador (5 November 2013), “Cumplo.cl, la piedra en el zapato para la banca que incomoda a los reguladores”, Accessed via Complo.cl, <http://cumplo.cl/el-mostrador-cumplo-cl-la-piedra-en-el-zapato-para-la-banca-que-incomoda-a-los-reguladores/>.
- El Pais (26 November 2015), “Uber: "Aspiramos a una regulación tan novedosa como lo que ofrecemos"”, <http://www.elpais.com.uy/informacion/uber-confia-llegara-regulacion-montevideo.html>.
- Emol (22 August 2015), *Uber quiere seducir a Chile tras un exitoso aterrizaje en América Latina*, <http://www.emol.com/noticias/Economia/2015/08/22/746258/Uber-quiere-seducir-a-Chile-tras-un-exitoso-aterrizaje-en-America-Latina.html>.
- Época Negócios (20 January 2016) “Taxistas alegres, formais e de unhas limpas para vencer o Uber em São Paulo”, <http://epocanegocios.globo.com/Brasil/noticia/2016/01/taxistas-alegres-formais-e-de-unhas-limpas-para-vencer-o-uber-em-sao-paulo.html>.
- European Commission (EC) (2014), *Antitrust: Commission announces the launch of market tests in investigations in the online hotel booking sector by the French, Swedish and Italian competition authorities* (News Release), Brussels, http://europa.eu/rapid/press-release_IP-14-2661_en.htm.
- Evans, P. (February 7, 2014), “Disruptive Competition Part 2: What Role for Regulators and Competition Policy?”, judoeconomics blog, <https://judoeconomics.wordpress.com/2014/02/07/disruptive-competition-part-2-what-role-for-regulators-and-competition-policy/>.
- Federal Trade Commission (FTC) (2014), *FTC Staff: Missouri and New Jersey Should Repeal Their Prohibitions on Direct-to-Consumer Auto Sales by Manufacturers* (News Release), Washington, DC, <https://www.ftc.gov/news-events/press-releases/2014/05/ftc-staff-missouri-new-jersey-should-repeal-their-prohibitions>.

- Feinstein, D., A. Gilman and M. Davenport (30 May 2014), “Sometimes brick & mortar competition is enough”, *Federal Trade Commission Blog*, <https://www.ftc.gov/news-events/blogs/competition-matters/2014/05/sometimes-brick-mortar-competition-enough>.
- Filistrucchi, L. et al (25 June 2010), "Mergers in Two-Sided Markets- A Report to the NMa", *Netherlands Authority for Competition and Markets*, https://www.acm.nl/download/documenten/nma/NMa_Two-Sided_Markets_-_Report_-_16_July_2010.pdf.
- Filistrucchi, L., D. Geradin and E. van Damme (2013b), “Identifying Two-Sided Markets”, *World Competition*, Vol. 36, No. 1, <https://www.kluwerlawonline.com/document.php?id=WOCO2013003>.
- Filistrucchi, L., D. Geradin, E. van Damme and P. Affeldt (16 March 2013) (2013a), “Market Definition in Two-Sided Markets: Theory and Practice”, *Tilburg Law School Legal Studies Research Paper Series*, No. 09/2013, Tilberg, <http://ssrn.com/abstract=2240850>.
- Fingleton, J. (2013), *Disruptive Entry and Regulation in Financial Services*, Fingleton Associates, <http://www.fingletonassociates.com/speeches/disruptive-entry-and-regulation-in-financial-services/>.
- Folha de São Paulo (1 October 2015), “Justiça do Rio autiroza motorista Uber após prefeitura proibir aplicativo”, <http://www1.folha.uol.com.br/cotidiano/2015/10/1689168-justica-proibe-prefeitura-do-rio-de-impedir-motorista-do-uber-de-circular.shtml>.
- Gowen, A. (8 February 2015), “India bans Facebook’s ‘free’ Internet for the poor”, *Washington Post*, https://www.washingtonpost.com/world/indian-telecom-regulator-bans-facebooks-free-internet-for-the-poor/2016/02/08/561fc6a7-e87d-429d-ab62-7cdec43f60ae_story.html?tid=pm_world_pop_b.
- Graef, I. (2015a), “Market Definition and Market Power in Data: The Case of Online Platforms”, *World Competition*, Issue 4, pp. 473–505, <http://www.kluwerlawonline.com/abstract.php?area=Journals&id=WOCO2015040>.
- Graef, I. (2015b), “Stretching EU competition law tools for search engines and social networks”, *Internet Policy Review*, Vol. 4, Issue 3, <http://policyreview.info/node/373/pdf>.
- Gray, K. et al (29 May 2015), “Can Uber survive a fight with Latin America’s battle-tested taxi unions?”, *Fusion*, <http://fusion.net/story/141060/can-uber-survive-a-fight-with-latin-americas-battle-tested-taxi-unions/>.
- Haucap, J. and T. Stühmeier (2015), “Competition and antitrust in internet markets”, *DICE Discussion Paper*, No. 199, <http://hdl.handle.net/10419/121420>.
- Heim, A. (17 November 2012), “8 companies that hope to democratize finance in Latin America”, *The Next Web*, <http://thenextweb.com/la/2012/11/17/8-companies-that-hope-to-democratize-finance-in-latin-america/>.
- Herrera, T. (29 October 2015), ““Lo que es mío es tuyo”: La economía colaborativa ya está aquí para quedarse”, *El Definido*, <http://www.eldefinido.cl/actualidad/plazapublica/6020/Lo-que-es-mio-es-tuyo-La-economia-colaborativa-ya-esta-aqui-para-quequedarse/>.
- Keane, J. (January 13 2016), “Thrashing Uber: The rise of two local taxi apps”, *IDG Connect*, <http://www.idgconnect.com/abstract/11628/thrashing-uber-the-rise-local-taxi-apps-latin-america>.

- Kern, B. (2014), “Innovation Markets, Future Markets, or Potential Competition: How Should Competition Authorities Account for Innovation Competition in Merger Reviews?”, *World Competition: Law and Economics Review*, Vol. 37, No. 2, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2380130.
- Kraul, C. and V. Bevins (17 December 2015), “Ride-sharing apps are booming in Latin America — and competition is stiff”, *Los Angeles Times*, <http://www.latimes.com/world/mexico-americas/la-fg-latin-america-ride-sharing-20151217-story.html>.
- Kumar, K. and J. Winiecki (12 August 2014), “Access to Energy via Digital Finance: Models for Innovation”, *The Consultative Group to Assist the Poor*, Washington, D.C., <http://www.cgap.org/publications/access-energy-digital-finance-models-innovation>.
- Lao, M., D. Feinstein and F. Lafontaine (2015a), *Direct-to-consumer auto sales: It's not just about Tesla*, Washington, DC, <https://www.ftc.gov/news-events/blogs/competition-matters/2015/05/direct-consumer-auto-sales-its-not-just-about-tesla>.
- Lao, M., D. Feinstein and F. Lafontaine (2015a), *Letter to Senator Darwin L. Boohar*, Washington, DC, https://www.ftc.gov/system/files/documents/advocacy_documents/ftc-staff-comment-regarding-michigan-senate-bill-268-which-would-create-limited-exception-current/150511michiganautocycle.pdf.
- Latin American Competition Forum (LACF) materials (all available at <http://www.oecd.org/competition/latinamerica/previouslatinamericancompetitionforums.htm>.)
- Lopez, J. (22 August 2015), “President of Costa Rica Issues Warning to Uber”, *The Costa Rica Star*, <http://news.co.cr/president-of-costa-rica-issues-warning-to-uber/41021/>.
- Mari, A. (5 May 2015), “Uber avoids São Paulo ban”, ZDNet, <http://www.newsjs.com/url.php?p=http://www.zdnet.com/article/uber-avoids-sao-paulo-ban/>.
- Measuring competition advocacy's impact in Latin America and the Caribbean (2015).
- Monopolkommission (2015) Competition policy: The challenge of digital markets, Special Report 68. English summary available at: http://www.monopolkommission.de/images/PDF/SG/SG68/S68_summary.pdf.
- Multilateral Investment Fund (MIF) (3 February 2014), “MIF supports innovative Pay-as-You-Go solar power business model for poor households in Guatemala”, <http://www.fomin.org/en-us/Home/News/PressReleases/ArtMID/3819/ArticleID/1060/MIF-supports-innovative-Pay-as-You-Go-solar-power-business-model-for-poor-households-in-Guatemala.aspx>.
- OECD (28 May 2015), “Hearing on Disruptive Innovation: Issues Paper by the Secretariat”, <http://www.oecd.org/daf/competition/disruptive-innovations-and-competition.htm>.
- Oğuzb, F., Akkemikc, K. and Göksala, K. (December 2015), “Toward a wider market definition in broadband: The case of Turkey”, *Utilities Policy*, 37, <http://www.sciencedirect.com/science/article/pii/S0957178715000405>.
- Owings, T.M. (2013) “Identifying a Maverick: When Antitrust Law Should Protect a Low-Cost Competitor”, *Vanderbilt Law Review*, 63(1):323-354.

Oyandel, J. (12 December 2014), “Uber en Chile es catalogado como "actividad informal" por Ministerio de Transportes”, *FayerWayer*, <https://www.fayerwayer.com/2014/12/autoridades-chilenas-catalogan-a-uber-como-actividad-informal/>.

Presidência da República: Casa Civil (9 October 2013), “LEI N° 12.865, DE 9 DE OUTUBRO DE 2013”, http://www.planalto.gov.br/ccivil_03/_ato2011-2014/2013/Lei/L12865.htm.

Revista Summa (13 October 2015), “Panamá: Uber Manifiesta Disposición de Someterse a Regulación”, <http://www.revistasumma.com/panama-uber-manifiesta-disposicion-de-someterse-a-regulacion/>.

Schoon, R. (12 October 2015), “Spanish Uber Rival Cabify Seeks to Expand in Latin America After Rakuten-led Funding Round”, *Latin Post*, <http://www.latinpost.com/articles/86189/20151012/spanish-uber-rival-cabify-seeks-to-expand-in-latam-after-rakuten-led-funding-round.htm>.

Shapiro C. (2011) “Competition and Innovation: Did Arrow Hit the Bull’s Eye?”, In NBER, *The Rate and Direction of Inventive Activity: Revisited*, 361-410.

Shelanski, H.A. (2013) “Information, Innovation, and Competition Policy for the Internet”, *University of Pennsylvania Law Rev.*, 161: 1663-1705.

Suki, L. (February 2007), “Competition and Remittances in Latin America: Lower Prices and More Efficient Markets”, *Inter-American Development Bank/OECD Publication for Latin American Competition Forum*, <http://www.oecd.org/daf/competition/prosecutionandlawenforcement/38821426.pdf>.

Telegeography (15 June 2015), “TDLC ‘lost opportunity’ to rule on secondary market for spectrum”, <https://www.telegeography.com/products/commsupdate/articles/2015/06/15/tdlc-lost-opportunity-to-rule-on-secondary-market-for-spectrum/>.

The Economist (13 October 2012), “Shut down Cumplo”, <http://www.economist.com/node/21564610>.

Times of India (30 December 2015), *CCI rejects Meru Cabs' dominance abuse charges against Uber*, New Delhi, <http://timesofindia.indiatimes.com/tech/tech-news/CCI-rejects-Meru-Cabs-dominance-abuse-charges-against-Uber/articleshow/50384044.cms>.

United Kingdom Competition Commission (2008), *Game Group PLC and Games Station Limited: A report on the completed acquisition by Game Group PLC of Games Station Limited*, London, http://webarchive.nationalarchives.gov.uk/20140402141250/http://www.competition-commission.org.uk/assets/competitioncommission/docs/pdf/non-inquiry/rep_pub/reports/2008/fulltext/536.pdf.

Van Acker, J. (20 November 2015), “Brazil Probes Violence, Sham Lawsuits Against Uber”, *Law 360*, <http://www.law360.com/articles/729880/brazil-probes-violence-sham-lawsuits-against-uber>.

Van Gorp, N. and O. Batura (Julu July 2015), “Challenges for Competition Policy in a Digitalised Economy, Study for the ECON Committee, European Parliament Directorate-General for Internal Policies, Policy Department A”, *European Parliament*, Brussels, [http://www.europarl.europa.eu/RegData/etudes/STUD/2015/542235/IPOL_STU\(2015\)542235_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/STUD/2015/542235/IPOL_STU(2015)542235_EN.pdf).

Wade, J. (16 October 2015), *Uber Competition in Latin America*, *Nearshore Americas*, <http://www.nearshoreamericas.com/cabify-latin-america-12-million-uber-tappsi-easy-taxi/>.

- Weissman, S. (4 November 2015), *Pardon the Interruption: Competition and Disruptive Business Models*, <https://www.ftc.gov/public-statements/2015/11/pardon-interruption-competition-disruptive-business-models>.
- Wilson, T. (26 February 2014), “A VC’s View on Finding “Disruptive” Stars Among LATAM’s Burgeoning Startups”, *Nearshore Americas*, <http://www.nearshoreamericas.com/vc-latam-tech-investing-blumberg/>.
- Wolpe, T. (6 February 2013), “Oracle rebuffs MySQL security update criticisms”, *ZDNet*, <http://www.zdnet.com/article/oracle-rebuffs-mysql-security-update-criticisms/>.
- Wolpe, T. (6 November 2014), “MySQL: Why the open source database is better off under Oracle”, *ZDNet*, <http://www.zdnet.com/article/mysql-why-the-open-source-database-is-better-off-under-oracle/>.